# ISCAR 2017

# Book of Abstracts

**ISCAR 2017**
Quebec City
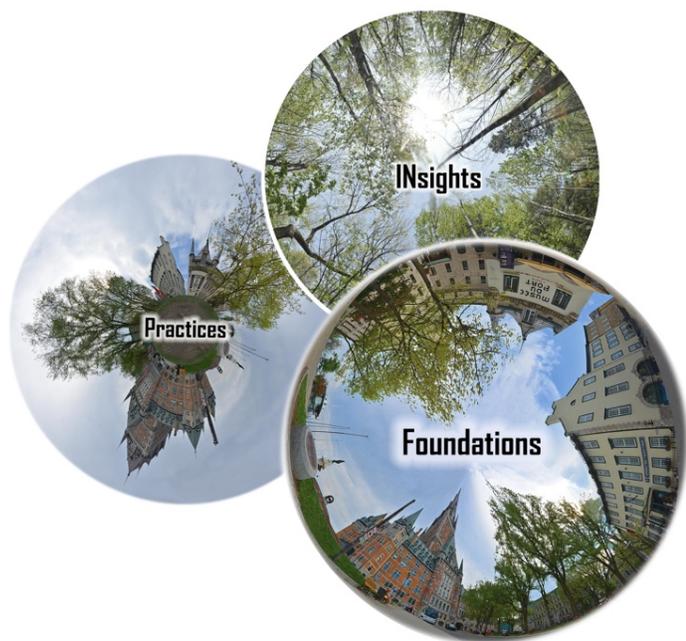
*Taking a 360° view of the landscape of cultural-historical activity theory:*
*The state of our scholarship in practice*

**ISCAR** International Society for Cultural-historical Activity Research

ISCAR 5th International Congress
August 28th - September 1st 2017
Quebec, Canada

February 9, 2018

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Fernand Gervais

# A welcome from the President of the Congress

Following up the ISCAR conferences held in Seville (2005), San Diego (2008), Rome (2011) and Sydney (2014), the theme of the 2017 conference emphasizes a vast and thorough reflection about our research traditions and scholarship domain. The 2017 conference will offer researchers the opportunity to meet and exchange ideas on Qualitative research and new trends in Cultural-historical activity research as well as on Foundations and Practices in context. These few days will allow you to listen to a broad range of subjects related to cultural-historical activity and have discussions with international scholars and researchers from different fields. ISCAR is proud to provide both new and established researchers with an environment conducive to the exchange of ideas, a context that on the one hand supports graduate students in developing their research programs and communicating with experts, and on the other, encourages senior scholars to share their expertise. ISCAR 2017 offers a wide array of presentations, workshops and symposiums and will provide a unique multicultural experience and multidisciplinary platform for discussion of relevant topics related to cultural-historical activity research.

Our illustrious keynote speakers, Kris Gutiérrez, Yrjö Engeström and David Bakhurst will set the table for fructuous exchanges of ideas and experiences throughout the five days we will spend together. We sincerely hope you will take the most out of the 2017 conference and enjoy your stay in Quebec City. We have done our best to offer you a great conference.

Finally, I would like to take the opportunity to thank all the people involved in the making of this conference especially Thérèse Laferrière who has been the mastermind and the tireless "chef d'orchestre" of the whole conference organization. As many of you can testify, she has devoted herself completely to this venture, we are all grateful for everything she has done for ISCAR over the last three years.

I wish everyone a successful and enjoyable conference.

Fernand Gervais, ISCAR 2017 President

**Malcolm Reed**

# A welcome from the President of ISCAR

I remember just over a year ago in late Spring, 2016, standing on the edge of the old fortified city of Quebec, looking out over the elbow the mighty St Lawrence river makes, across the docks and the industrial buildings of the previous centuries, and thanking our lucky stars that ISCAR 2017 is coming to this wonderful place. It is with such anticipation that I welcome our meeting together to experience this pleasure and gratitude.

It isn't simply the place, but the people, in particular Fernand Gervais, and especially Thérèse Laferrière, who has worked tirelessly to make this Congress real and who deserves (apart from a well-earned break when we finish) a thousand thousand thank-yous. And our thanks to the Organising Committee and all the staff at Université Laval who have put their hands and minds to helping. Nous vous remercions énormément.

ISCAR as an organization is going through changes. It is right and proper that we do so, because development of being is absolutely central to any philosophy and psychology that practises in the tradition of Vygotsky. The membership is not as numerous as in the past and our revenue has grown smaller as a consequence. Whereas, historically, opportunities to come together under the umbrellas of cultural-historical, sociocultural and activity theory perspectives (let us not be diverted by internal critique of the differences here) were, in the main, the preserve of ISCAR and its forerunners, nowadays there are more frequent and diverse occasions. In one sense, this testifies to the international and enduring importance and persuasion of the theoretical concerns we practise in common; in another sense, we need to hold on to and cherish something of our original singularity.

So it is important that the theme of this Congress is ecological both in its wide-eyed attention to our landscape of ideas and in its sharp reflection on our communities of practice. We need to be mindful of the state of our own territory and its peoples, understand our particularities and nuances, our presences and potentiality, our activities and inertias, our maturity and our adolescence. Like any landscape we have cultivated, we need also to learn what and whom we have depleted or used to extinction, and count that cost and commit to reparation and rediscovery. These are necessary personal and political acts. These are what Vygotsky believed are constitutive and creative of a *zoon politikon* in a book he never lived to write. We are those people. And Quebec City, Canada in 2017 is the perfect place and the time.

Malcolm Reed, President of ISCAR

# Keynote speakers

**David Bakhurst**

**Yrjö Engeström**

**Kris Gutiérrez**

# Imaginaries and subjectivities of teachers of color in Urban STEM classrooms

Jennifer Adams *(University of Calgary, Canada)*

Responding to the theme of looking at learning and identity across activity settings of everyday life, this talk will examine the professional lived experiences of three female teachers of color as they navigate their subjectivities of learning to teach and racialized bodies in classrooms. As teachers within their first three years of teaching in three different and diverse urban schools, they are learning what it means to teach while they are developing their identities as teachers in diverse classrooms, and in particular what it means to teach students of color and they ways that they either take up, resist and/or transform discourses around students of African and Latinx decent and STEM. In order to understand their experiences of becoming teachers, it is important first to unpack the discursive fields in which they exist, for example, discourse around race, STEM teaching and learning and resources in science teaching and learning contexts and how their subjectivities shift and respond to these discourses. Drawing from two years of data from a group of science teachers who met bi-weekly as a collaborative teacher inquiry group, three participants emerged as case studies because of their identities as Afrodiasporic teachers coupled with their enactments of teaching. Data sources from the meetings included digital audio recordings, field notes and artifacts teachers brought in and chose to share with the group. Individual interviews and one-on-one informal dialogues also informed this study. The analysis shows that within the different schooling contexts, teachers enacted their activity as teachers in different ways in relation to how they viewed themselves vis-à-vis their students. Their goals for creating STEM learning experiences were shaped and enacted around STEM futures that they imagined for their students and to counter the prevailing deficit discourses around students of color and STEM.

**Format:** Paper presented in a Symposium (261)

# Students' agentic learning process: beginning the transformation of university teacher education practices

Megan Adams *(Monash University)* & Liang Li *(Monash University)*

Teacher education draws attention to enhancing the quality of education offered through an emphasis on innovative practice. This project challenges current university practice of preset unit content delivered through instructional teaching and moves towards recognising and valuing student teacher agency in university unit development. Research supports the need for fewer teacher educators-directed learning to more interactive student teacher led learning, shifting the focus to work with students in more productive ways. In the current study, student teachers were invited to co construct their own learning through a consultation process where their choices and opinions were sought prior to unit development and delivery. During delivery of the unit, an open dialogue was entered into on social media where students were encouraged to provide feedback on their experience. A cultural-historical interpretative methodology was used to frame the project. Digital video observations of the pre-service teachers focus group co constructing unit content and assessment with a teacher educator and the social media conversations during the delivery of the unit were analysed. The concepts of relational agency (Edwards, 2004) and subjectivity (González Rey, 2015) were used to analyse the face to face and social media conversations. The target group consisted of seven fourth year undergraduate students enrolled in the unit. This paper unpacks dimensions of student teachers' experience as co constructors in unit development, in order to determine how they perceive their own agentic learning. It is argued that transformation in teacher education begins with inclusive, collaborative dialogue and teacher educators who seek student's choice, opinions and agency support the student-centred learning and teaching experience. The findings from this study have implications, which highlight the need to provide participants with outstanding student centred learning experiences. Further, the study provides insights into the benefits of offering opportunities that develop and respect variations in student learning styles.

**Format:** Paper presented in a Symposium (174)

# Subjectivity and temporality: Contributing to a discussion on theoretical, methodological and epistemological consideration in cultural-historical theory

Megan Adams *(Monash University)*

Vygotsky's cultural-historical concept of perezhivanie has created debates from which various theoretical and methodological understandings and uses of the concept have eventuated. One such contemporary concept is Gonzalez Rey's conceptualisation of subjectivity, which provides a way to investigate and understand both previously overlooked aspects of development, as well as the epistemology of cultural-historical research itself. Specifically, in this paper, the concepts of subjective sense and subjective configuration (González Rey, 2004) are combined with temporality in the case study methodology that investigates a child as she moves with her family to temporarily reside in Malaysia. González Rey's concepts of subjectivity, combined with temporality, enable us to understand the nuances of the child's emergent identity in everyday life as she experiences an international transition. A cultural-historical dialectical interactive methodology (Hedegaard, 2008) was used to analyse the everyday life of the child, and interview data of the mother and teacher, and the method reflected upon. This paper reports on the theoretical, and methodological, considerations that both develop subjectivity and create tension and challenges when using an under-explored concept by examining 1) the contributions, challenges, and limitations of the methodology, and 2) the study's theoretical and epistemological contributions. I argue that combining subjectivity and temporality supports an understanding of identity construction using cultural-historical theory, and in addition contributes to general discussions of cultural-historical concepts.

**Format:** Paper presented in a Symposium (083)

# Children learn by observing and contributing to family and community endeavors: A cultural paradigm (077)

Chairs: Lucia Alcala & Maricela Correa-Chavez

Lucia Alcala *(California State University, Fullerton)*, Maricela Correa-Chavez *(California State University, Long Beach)*, María Dolores Cervera Montejano *(Centro de Investigación y de Estudios Avanzados del IPN (Cinvestav). Unidad Mérida)*, Andrew Coppens *(University of New Hamphire)*, Yolanda Corona *(Autonomous Metropolitan University)*, Sergio Aguilera *(California State University, Long Beach)*, Lourdes de León *(Centro de Investigaciones y Estudios Superiores en Antropologia)*, Margarita Martínez-Pérez *(University of Sciences and Arts of Chiapas (UNICACH))*, Rebeca Mejia-Arauz *(ITESO University)*, Luis Urrieta *(University of Texas, Austin)*, Barbara Rogoff *(University of California, Santa Cruz)*, Carolina Remorini *(Universidad Nacional de La Plata)*, Ulrike Keyser *(Universidad Pedagógica Nacional)*, Eva Itzel Aceves Azuara *(University of California, Santa Cruz)*, Dewa Ayu Eka Putri *(Kabupaten Gianyar)* & Graciela Quinteros *(Autonomous Metropolitan University)*

In this poster symposium, contributing authors to the Advances in Child Development and Behavior volume, Children Learn by Observing and Contributing to Family and Community Endeavors, will present posters on their chapters. They will be joined by two posters presenting new work that flows from the paradigm. The symposium focuses on Learning by Observing and Pitching In (LOPI) as a cultural paradigm for supporting children's learning processes. LOPI is present in many communities around the world but appears prevalent in Indigenous communities of the Americas. In this paradigm, children are integrated into a wide range of important activities of the community. This integration allows children to be present, observe, and pitch in as they become more skilled with the task at hand and are able to contribute to the ongoing endeavor.

The ten posters examine LOPI in various Indigenous-heritage communities of the Americas including, Mayan, Mexican-heritage, Mestizo, P'uhepecha, and Mbya-Guarani among others. The papers address the following topics: theoretical orientation of LOPI, children's learning by observing, children's initiative in helping, children's participation in ceremonial life, children's patterns of collaboration and interactions with others, children learning about reciprocity, the interaction between children and adults in learning, and community forms of orienting children to adult work.

The poster symposium is designed to generate interaction with the audience and the diverse papers and provide ample space for a general discussion to highlight and propose future areas of collaboration on the cultural variation of children's learning processes.

**Format:** Poster Symposium

# Analyzing different ways of thinking on substance that emerge when different activities are proposed in Chemistry classes (263)

Edenia Amaral *(Universidade Federal Rural de Pernambuco - UFRPE/BRAZI)* & Jaqueline Dantas Sabino *(Teacher in Secondary Schools, Recife(PE))*

In this paper, we intend to analyze relationships between activities proposed in Chemistry classes and the emergence of different ways of thinking about the concept of substance, which can be associated with different contexts. Different ways of thinking have been considered from the theory of conceptual profile (Mortimer; El Hani, 2014; Silva; Amaral, 2011), and activities proposed in science classroom were organized and analyzed taking into account the activity theory, such as proposed by Engeström (2001). This research adopted a qualitative methodological approach, involving 13 students, 14-15 years old, from Secondary School, 9th grade, in a private school, in Recife, Brazil. The results point out that during the 03 classes, with major or minor frequencies, different ways of thinking emerged in the classroom discussions. The proposed activities and contexts constituted into the classes favor the emergence of particular ways of thinking for substance, and the students were challenged to manage different ideas to make meaning for scientific concepts. They were invited to increase their repertoire of arguments towards an understanding of the scientific view for substance, placing it among other different ways of thinking.

**Format:** Poster presented in a Structured Poster Session

# Neurodevelopment of babies promoted by orientations given to caregivers (154)

Carla Anauate *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Edna Maria Peters Kahhale *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

This paper is based on the Social Historical theory of Luria and Vygotsky focusing parent orientation as fundamental to promote neurodevelopment on babies. Considering that relations are the key to the development of superior mental functions, evidence-based research proves that parents, should be present and paying attention to their children providing an opportunity for an ideal neurodevelopment and humanization. It is important to orientate parents so they can provide qualitative conditions, which integrates affection, conscience and action to promote development to occur according to the potential of the child. We believe that the individual constitutes himself by means of social contact. This work has the goal to approach the theory which orientates, with specific guidelines and practical work, parents aiming a better child neurodevelopment. Bonds are necessary for a better and trustful relation. When you are present in a relation, nervous connections are promoted, and these lead to a more effective motor, cognitive and affective development of the superior mental functions such as: memory, attention, language, psychomotricity, executive functions, etc. This work uses didactally the following principles of Luria and Vygotsky´s theory: mediation and zone of proximal development. Results proved in actual researches observe that each person is an individual self and that relationships are essential to produce development. Interactions between the brain and the formation of mental functions require the maturity of the nervous system as well as an active process which emphasizes relations of two or more human beings.

**Format:** Poster

# Utilizing the repertory grid elicitation technique with cultural-historical activity theory (CHAT) (183)

Laura Anderson *(IBM Research - Almaden)*, Christine Bruce *(Queensland University of Technology, Science and Engineering Faculty)*, Geoffrey Z. Liu *(San Jose State University, School of Information)*, Kristen Rebmann *(School of Information; San Jose State University)* & Sharmistha Dey *(Queensland University of Technology, Science and Engineering Faculty)*

Over the past 30 years, Cultural-Historical Activity Theory (CHAT) has been successfully and extensively utilized to study the meditation of language, artifacts, and technology across diverse contexts while maintaining the overall integrity of each complicated system and setting. Cultural-Historical Activity Theory (CHAT) is a powerful theoretical framework but would benefit from additional associated methods to the Change Laboratory. This paper focuses on the methodological contribution of using repertory grid elicitation in conjunction with CHAT, and the advantages and disadvantages of doing so. The use of the repertory grid elicitation technique provides a strong pathway to map participant observations obtained in interviews onto CHAT constructs. It also invites participants to think about their context in a different way, especially if they are not familiar with repertory grid elicitation, yielding new insights for both the participant and the researcher. By capturing the words of the participants, such as the identification of tools and associated definition and descriptions, the subject-centered viewpoint and vantage point is maintained and richly described, providing rich input to activity system analysis. It is aligned with the CHAT posture of the subject-centered viewpoint and in line with the functional method of double stimulation of Vygotsky and Engeström. The use of Leximancer 4 natural language processing text analytics is also noted. The use of the repertory grid elicitation technique is recommended to others conducting CHAT studies, to be refined and developed further by the CHAT research community for specific use with Cultural-Historical Activity Theory.

**Format:** Paper presented in a Paper Session

# Challenging assessing practice in schools for students with intellectual disabilities (382)

Fia Andersson *(Stockholms universitet Specialpedagogiska institutionen)* & Diana Berthén *(Stockholms universitet Specialpedagogiska institutionen)*

Within the Swedish special school for children with intellectual disability (ID) issues concerning the improvement and formative assessment of knowledge appropriation are largely unexplored. The teaching practice has generally been organized by means of simple, repetitive tasks with a minimum of variation and a tempo that tends to inhibit, fragmentize and simplify the whole. Thereby contemplated knowledge remains inaccessible and to a simpler assessment practice. However, new demands from the government make teachers face requirements to create more complex assessment practices.

This presentation is based upon data from seven case studies focusing teachers experiences from teaching and assessing literacy. The case studies were designed as research-circles, focus groups interviews, or as research and development projects. 120 teachers from different special schools
together with researchers were involved.

Theoretically, the projects are framed within the Cultural-Historical Activity Theory and focus on two main issues: What is the object of teachers´ assessment work concerning literacy? How do teachers handle a changed teaching assignment – from a simpler to a more complex practice?

Results indicate that teachers seem to be hindered by their taken-for-granted assumptions about assessing, i.e. to shift perspective from focusing on what simply could be assessed to what would be worth assessing.  By challenging these assumptions, potential changes in assessment practices could be discussed.

**Format:** Paper presented in an Interactive Paper Session

# School management team: senses and meaning that the participants attribute to their activity. A study from the sociohistorical perspective

Elvira Aranha *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Wanda Maria Junqueira de Aguiar *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

This research focused on three school management teams, each composed by principal, coordinator and vice-principal, from three public schools of Greater São Paulo (two state and one municipal). The general goal of the investigation was to understand the phenomenon of school management from the subjects that experience it. The specific goal of this research was to grasp the meanings the participants (principal, coordinator and vice-principal) attribute to their activity in the school. The participants (three principals, three coordinators and two vice-principals) were selected due to being part of schools that were voluntarily part of projects offered by research groups connected to Pontifícia Universidade Católica de São Paulo (Teaching Activity and Subjectivity and Language and Activities in School Contexts – LACE). The information was produced with the eight participants from interviews, reflective meetings and training meetings, according to the specificities of each project and school. Anchored in the Sociohistorical Psychology, this research emphasizes the contributions from Vigotski (1925, 1926, 1927, 1930, 1934), one of its main theoretician, as well as the contributions from: Leontiev (1977; 1978a, b and c; 1983; 2004), Engeström (1987; 1999), Bakhtin (1929, 1979) and Bakhtin/Volochinov (1929-30). It also considered the works of contemporary theoreticians that discuss the subjective dimension of the human constitution process, namely: González Rey (2005a, b; 2007), Mitjáns Martinez (2005), Gonçalves and Beck (2009), Aguiar and Ozella (2006; 2013) and Aguiar, Soares and Machado (2014). It is important to highlight that, in different ways and with different emphases, all these contexts had in the Collaboration Critical Research (Pesquisa Crítica de Colaboração – PCCol) (Magalhães, 1998, 2009, 2011, 2012; Magalhães & Fidalgo, 2007; Liberali, 2011, 2012) a common aspect, that proved itself relevant to both the construction of new ways of conducting the research and the results themselves. The analysis of the information, following the same conceptual alignment, is based on the theoretical-methodological process named "Meaning Nuclei" (Aguiar & Ozella, 2006, 2013), which was of great contribution to the process of data abstraction in order to grasp the historical materiality and dialectics of meanings that the managers attribute to their activity. Taking into account, from the adopted perspective, that the meanings represent the synthesis of the objectivity and subjectivity, the analyses show that the managers' speeches are expressions of the social reality, and more specifically in this case, of the education reality of our country, considering, however, that all meanings are dialectically constructed by historical subjects. In this sense, it became evident i) the importance of method and of a constructive interpretative analysis based on the theoretical-methodological procedures called "Meaning Nuclei" in order to grasp the meanings the managers give their activities; ii) the importance of the role of the principal to the possibility of school improvement; iii) the relevance of the managers initial training and continuing education for the attainment of positive results in the learning of students and teachers; iv) the fundamental importance of the State in guaranteeing the human and material resources to the realization of education public policies, regarding salaries and teaching career, already determined by law; v) the contribution of research groups in promoting spaces for discussion and learning in the school; vi) the relevance of research and extension projects based on a collaborative and critical perspective in transforming the meanings the managers attribute to their activity, thus opening up the possibility for transformation in the school through new action taken by those that are responsible for it.

**Format:** Paper presented in a Symposium (153)

# Unblocking the tensions of innovation acceptance: Towards a mentoring model for CPD development (432)

Elaine Arici *(Nottingham Trent University)*

Studies into the management of e-learning adoption in Higher Education by participants in the change process is limited although there is a wide body of literature about e-learning technology uptake and user choice promoting improved learner outcomes. Most research studies to date report on the role of change agents within the change process but not the underlying issues of managing the process itself. This research uses activity theory to investigate implications of the management of technological change and the effects of institutional policy over innovative practice. It examines the management of tensions between institutional e-learning policies and effective pedagogical innovation. This paper reports on a case study to establish the role that mentors as change agents play during the process of technological innovation and to identify the optimal conditions in which innovation occurs. The combination of mentor knowledge and motivational factors drive the process by which the mentees take ownership of their development journeys. The findings show that innovation acceptance is achieved through the identity of shifting mentoring roles from the participants' perspective during the innovation change process. The results contribute to the conditions in which technological innovation from an end-user perspective is actively encouraged and supported to meet the challenges of managing change. A model is proposed to offer strategies to manage the challenges of the implementation of e-learning policies. Their application will result in quick gains in technological development for the end user and therefore better efficiencies for the institutional context to which it is applied.

**Format:** Paper presented in a Paper Session

# Evolution of cultural mediation in development: From symbiotic action to mental processes

Igor M. Arievitch *(The Graduate Center, City University of New York (CUNY))* & Anna Stetsenko *(The Graduate Center, City University of New York (CUNY))*

Inspired by Vygotsky's insights, much progress has been made in research on cultural mediation. However, the key directions suggest that distributed processes (beyond the individual level) are the major and even exclusive realm of human development. With all due importance of going beyond the individual in explaining development, recent studies leave the dualism of external versus internal processes unresolved. We offer a more encompassing account that includes processes traditionally termed *mental* or *internal* and integrates these into a non-dualist developmental theory. We consider the early history of cultural mediation to outline how the mind gradually develops from embodied and situated collaborative activity starting in infancy. Expanding the notion of cultural mediation beyond its traditional semiotic interpretation paves the way to understand the development of mind as a continuous process without ontological breaks between initial forms of culturally mediated activity and more elaborated forms traditionally seen as taking place "in the mind."  We argue that the "magical" power of semiotic mediation brought forth by Vygotsky can be de-mystified if we consider earlier, pre-linguistic forms of mediation, emerging within initially symbiotic and then shared child-adult activity. We suggest that underlying the power of sign mediation is the abbreviated, highly condensed guiding activity of the adult. At the pre-symbolic stages, this guiding activity is performed in its fully-fledged form, as the adult's actions symbiotically intertwine with the child's actions in the child-adult collaboration. Later, the adult's guiding role gradually takes on a more distanced and condensed form of sign mediation. At even later stages, the child herself begins to use this condensed guidance represented in signs (semiotic means) for orienting and controlling her own activity, as described by Vygotsky. From this perspective, sign (semiotic) mediation is preceded by the earlier forms of cultural mediation and contains in a condensed form the results of several earlier transformations of mediation. We briefly outline these transformations with a focus on the development of action meanings. We thus argue that there is a dynamic continuum of different forms of mediation that culminates in the internalized ability of the child to guide and control her own activity. From this also follows that contrary to Vygotsky's distinction of lower (unmediated) and higher (mediated) mental functions, all psychological processes are culturally mediated from the very beginning of life.

**Format:** Paper presented in a Symposium (079)

# Changing narratives of success and failure in primary mathematics teaching and learning in South Africa (172)

Michael Askew *(University of the Witwatersrand, Johannesburg)* & Hamsa Venkatakrishnan *(University of the Witwatersrand, Johannesburg)*

Research continues to point to low levels of attainment in primary mathematics in many South African schools. One contributing factor to the persistence of low standards comes from research evidence of teaching that presents mathematics as a collection of unconnected procedures or facts that learners need to remember rather than make sense of. Alongside this is the evidence of teaching treating mathematical tasks as 'unscientific' (in the Vygotskian sense), that is, as tasks that all have to be undertaken ab initio, not building upon learners' prior knowledge of established facts, nor connect together different aspects of mathematics. In this absence of seeing mathematics as scientific – as a connected network of ideas – there is broad evidence of teaching, and of pupils, tackling mathematical activity through naïve methods, commonly unit counting or tallying in number tasks.

Within this context, the Wits Maths Connect – Primary project (WMC–P) focuses on developing and investigating interventions aimed at improving the teaching and learning of mathematics in ten government primary schools. Underpinning the interventions is a theoretical position of trying to shift the implicit narrative of primary mathematics as a collection of isolated arbitrary rules and procedures that are simply 'known' or 'not known', to one where the teaching and learning are seen as complementary and united through the narrative of school mathematics as a highly connected scientific discipline. This paper presents the theoretical position underpinning this approach and how the research team is judging whether a shift in teaching is subsequently occurring.

**Format:** Paper presented in a Paper Session

# Making meaning of children's social interactions through dynamic narrating

Shannon Audley *(Smith College)* & Karina Huang *(Smith College)*

Children's stories about peer experiences reflect the ways they contextually make sense of their social interactions within the school context. More so, they allow us to see the values that guide their peer interactions, as values influence what people actually do; how they approach and interact with the world (Daiute, 2013; Rogoff, 1990). Yet, the sources of these values are often unclear. Children receive messages about social interactions from their families (Grusec, 2011), but they also receive messages from within the school itself: the broader school culture (Henry, Farrell, Schoney, Tolan, & Dymnicki, 2011), the classroom culture (Gest & Rodkin, 2011), and the peer culture (Corsaro & Elder, 2001). Although some of these values may be congruent because of school socialization (Wentzel, 2015), it is likely that there may be tensions among the endorsed values from these varied sources (Daiute, 2008). This study used dynamic narrating to examine the tensions and congruities of children's school expectations and relationship values among a group of third-grade children, sixth-grade children, their respective teachers, and the school that they all attended. We used values analysis (Daiute, 2014) to determine the social values from the school (taken from the mission statement), teachers (oral narratives) and students (two written narratives). We found value tensions and congruities across all levels, which reflected school mission values that were not recognized, teacher values that were contested, and inter-classroom differences in peer relations. Using a dynamic narrative approach allowed us to examine the shared and divergent meanings of school, teacher, and peer expectations, so we could more fully understand the complexities of creating and maintaining shared values within the school context.

**Format:** Paper presented in a Symposium (240)

# The co-constitutive nature of continuities and discontinuities in situational interests

Flavio Azevedo *(University of Texas at Austin)*

Traditionally, research on interests has been conducted within educational environments and has sought to uncover the conditions to spark students' interest in disciplinary practices. As such, much effort has gone into understanding the notion of situational (short-term) interests—i.e., one's contingent, engaged but short-lived participation in ongoing activity (references). At the core, such notions have highlighted the essentially discontinuous character of the experience of pursuing a novel form of activity, such as that expressed by a situational interest. While I believe such discontinuities in experience and quality of participation do exist, I argue that focusing on them blinds us to the larger continuities within which the whole of one's experience takes on meaning. Indeed, understanding such activity continuities is essential to grasp how new experiences—e.g., emergent, situational interests—are appropriated into one's existing repertoire of activities and practices. This idea harkens back to Vygotsky's (1978) formulation of human developmental processes and its various extensions in activity theory (Engeström, 1987) cultural psychology (Cole, 1996), and which sees humans as constantly participating in several concurrent activities—or whole distinct activity systems—all of which bear complex relationships to one another. Seen in this light, ignoring the co-constitutive role of activity continuities and discontinuities misses some of the basic structural aspects of situational interests. As a corollary, framing situational interests as simultaneously continuous and discontinuous experiences provides us a more accountable description of the phenomenology of interests, its "triggering" processes, and eventual uptake and development (or not). To illustrate these points, I use two in-depth case studies of people's interest-based participation in STEM practices. In the first case, students in an after-school program initiate personal excursions (Azevedo, 2006) into emergent (situational) interests by building off of both continuities + discontinuities available in action. In the second case, I show how a continuities/discontinuities can be used to capture an amateur astronomer's emergent interests within his long-term hobby participation. Throughout, the focus is on processes and real-time activity of individuals so as to track the sequential, moment-to-moment production of a situational interest.

**Format:** Paper presented in a Symposium (325)

# 'Growing up in Rosengard is quite nice!'? Social capital - A different perspective to consider young adults in Rosengard (164)

Mahmoud Azzam *(Sankt Lars Health Center, Region Skane)*

Social work practice and research, particularly targeting vulnerable inner-city neighbourhoods, lack a Cultural-Historical Activity Theory (CHAT) perspective on these issues. CHAT provides useful tools to describe people's social functioning when combined with the notion of Social Capital, which I used while studying young adults' experiences of living in the segregated and stigmatized inner-city neighbourhood of Rosengård, Sweden. This area is well known as a poverty zone, with high criminality, ethnic minorities, low educational attainment levels, drug usage and high unemployment. I found that fundamental social capital, as a collective asset within the family and with other kinship, and the availability of other social capital resources within the environment, is important for young adults' development of their own social capital.

Bridging and linking social capital seem to have great value for work, education, and functioning of the young adults. There was also a need for a balance between the bonding social capital within the primary group and bridging social capital towards heterogeneous networks in order to attract resources. The big question in practice is how to bridge the gap – what's called the structural hole – between the inner-city area and the surrounding community in order to meet each other's needs. Out of a CHAT perspective, we can ask the questions: How can two important communities or activity systems meet, how can CHAT be used in a Social Work practice together with a Social Capital perspective to improve adaption of youth and improve the interactive functioning of the two systems?

**Format:** Paper presented in a Working Group Roundtable

# The contributions of the cultural-historical perspective to research on the development of scientific concepts by students with intellectual disabilities (104)

Maria Inês Bacellar Monteiro *(Universidade Metodista de Piracicaba)*, Glaucia Uliana Pinto *(Universidade Metodista de Piracicaba),* & Ana Paula de Freitas *(Universidade São Francisco)*

The aim of this study is to analyze how the educational practices have occurred in the classroom dynamics so that these students may develop scientific concepts. Based on this, we reflect on the process of conceptual development and how students with disabilities can learn school subjects in view of the concrete conditions of everyday school life. The study is based on the cultural-historical perspective of human development. These projects are being carried out in different public schools in Brazil, and the research subjects are students with intellectual disabilities and their teachers. Two situations were analyzed. During the teacher training meetings, teachers reported their practices and revealed their great difficulty in creating learning paths for students with intellectual disabilities, so that they take hold of school knowledge, especially because these students show peculiar characteristics that set them apart from most students. We have seen some progress, in the sense that teachers are now looking at disabled students, which did not occur previously. This student is beginning to be noticed in the classroom, but the teachers' reports about the educational activities reveal the lack of confidence in this student's development possibilities. The analyzed classroom episodes reveal that education for students with intellectual disabilities is still restricted to what they already know how to do, always using the same routines, with mechanical exercises that prioritize perceptual skills such as sound and letter recognition, which do not allow them to move towards reflection on what they are learning.

**Format:** Poster

# Punks versus zombies: Evald Ilyenkov and the battle for Soviet philosophy

David Bakhurst *(University of Calgary, Canada)*

In May 1954, Evald Ilyenkov and his friend Valentin Korovikov presented a number of "theses on philosophy" to a large audience at Moscow University, where they were both junior lecturers. The subsequent furor pitched Ilyenkov and Korovikov against the Soviet philosophical establishment, controlled by philosophers who had come to prominence at the height of Stalinism. The establishment cast Ilyenkov and Korovikov as "punks", contemptuous of orthodoxy and indifferent to the class character of philosophy. In turn, Ilyenkov, Korovikov and the students they inspired saw the old guard as brain-dead automata, motivated by ideological dictates rather than the deliverances of free thought. The ensuing confrontation, which lasted some eighteen months, had a significant effect, not just on Ilyenkov's own philosophical development, but on an entire generation of Soviet philosophers. While the controversy was long known to have occurred, the text of the theses was lost, and all accounts of events were anecdotal. This situation changed dramatically in 2016, with the Russian publication of fascinating archival research by Ilyenkov's daughter, Elena Ilesh. Drawing on this recent work, this paper tells the full story of the famous theses, examines the provocative conception of philosophy that they defended, and reveals the incident's long-lasting, and ultimately tragic, influence on Ilyenkov's life and work.

**Format:** Keynote speech

# Do defense lawyers plead with Vygotski in crime court? (236)

Marie Barbou *(Conservatoire National des Arts et Métiers (CNAM), Paris)* & Katia Kostulski *(Conservatoire National des Arts et Métiers (CNAM))*

The aim of that abstract is to present how the defense lawyer's pleading in crime court can be called "art" the way Vygotsky defined it in The psychology of art, that is to say as a social technique of the feeling. We observed how the shape given to language, took or not advantage on the material, in other words how the way the lawyer makes his pleading can act on the juror's intimate conviction. The shape here would be a polemical way of expressing conflictualities (Markova, 2007), and resolving them by using rhetorical processes, including two concepts of social psychology, the concept of third parties' voices (Grossen, 2011) and the concept of Witcraft (Billig, 1996).

To study that process, we've chosen the French case of the Courjault affair. We met Me Leclerc, Veronique Courjault's lawyer, and discussed with him the transcription of his pleading. That research also contributes to understand how the form of language expression has a psychological function. In that manner, this study places itself in the field of the symbolic activity (Kostulski, 2011).

The material:
- Interviews with 25 lawyers from the Paris Bar on pleading, and 2 with Me Henri Leclerc.
- One whole pleading transcripted.

We can assume that the defense lawyer's pleading is a piece of art able to act on the juror's conviction by a movement called « deliberation art ». Following Vygotsky, we've demonstrated the materiality of this art, although it appears as a kind ephemeral because it was not created to last.

**Format:** Paper presented in a Paper Session

# Science teachers as mentors to their peers: the challenge of working over conflicting issues

Sylvie Barma *(Université Laval)*

Building on a six-year collaborative research with three science teachers acting as mentors for 60 of their peers during the implementation of a science curriculum, we document emerging 'conflicting issues' they faced. Using Developmental Work Research, we supported practitioners' agency in analyzing and transforming the systems of their joint activity (Barma et al., 2014). Data analysis was guided by dialectical, linguistic, and emotional criteria to document the discursive manifestations of contradictions, namely tensions, conflicts, critical conflicts, and dilemmas (Engeström, & Sannino, 2011). We illustrate how they found a way to resolve what appeared as contradictory emotions and also how they demonstrated agency leading to a new form of practice. Our results show that both emotions and imagination were central to 'work over' what appeared to be oppositional (Smagorinsky, 2011). This symposium is an opportunity to deepen our understanding of perezhivanie as an emotional experience that embraces personal characteristics as well as situational characteristics (Jornet & Roth, 2016). As researchers interested in the individual and the social dimensions of an activity where emotions are key (Gonzalez Rey, 2011), we would like to raise some methodological questions to share and discuss like: 1- Which data to select? 2- What is the unit of analysis? 3- How do we make sense of the intertwining of the present, the past and the future in the discourse? The answers to these questions could help us highlight what raises the agency of participants as individuals but also as a collective to understand better what sets transformative actions.

**Format:** Paper presented in a Symposium (118)

# Russian contribution to Vygotsky's heritage (450)

Sylvie Barma *(Université Laval)*

The Centre of Research and Intervention for Student and School Success (CRI_SAS) has launched an international Francophone journal, which exceptionally accept English written articles, on innovation. All published articles are inspired, one way or another, by Vygotsky's theoretical concepts. Thus, this scientific journal publishes texts explicitly linked to historico-sociocultural theories. The ISCAR 2017 conference was a great opportunity to invite Russian scholars to contribute to a Special Issue on Vygotsky's influence in sociocultural theories. More than 20 Russians have contributed. Sylvie Barma (Laval University) and Viktor Zarestkii (MSUPE) are co-editor.

**Format:** Paper

## STEM interactive symposium: challenging traditions in STEM research when crossing the CHAT landscape? (175)

Chair: Sylvie Barma *(Université Laval)*

Sylvie Barma *(Université Laval)*, Katerina Plakitsi *(University of Ioannina Greece)*, André Machado Rodrigues *(University of Sao Paulo)*, Cristiano Mattos *(University of Sao Paulo)*, Marie-Caroline Vincent *(Université Laval)*, Julie Massé-Morneau *(Université Laval)*, Samantha Voyer *(Université Laval)*, Florence Cadieux-Gagnon *(Université Laval)*, Seth Chaiklin *(University College UCC)*, Eleni Kolokouri *(University of Ioannina)*, Efthymios Stamoulis *(University of Ioannina)*, Liana Stylianou *(Environmental Education Centre of Naoussa)*, Eftychia Nanni *(University of Ioannina)*, Nikos Kolios *(Laboratory Science Centre of Ioannina)* & Jorge Sanabria-Zepeda *(SUV - Universidad de Guadalajara)*

The goal of this interactive symposium is to collectively share and compare the way we do research in STEM education so it may further develop. Each presenter will be given ten minutes to illustrate how cultural-historical activity and sociocultural theories influence their work. These examples will be used as a background for a more general discussion that should last one hour about whether there are significant differences with other approaches to STEM education. The ultimate interest is to see if we can articulate and strengthen our research perspectives.

**Format:** Symposium

# Why and how sociocultural-historical perspective lead us to ask different questions when doing research in STEM?

Sylvie Barma *(Université Laval)*, Marie-Caroline Vincent *(Université Laval)*, Julie Massé-Morneau *(Université Laval)*, Florence Cadieux-Gagnon *(Université Laval)* & Samantha Voyer *(Université Laval)*

Our contribution seeks to discuss how, as researchers in STEM, we have come to ask different questions as science teachers face difficult challenges in the context of a curricular reform. The Quebec reform requires that they integrate technological design approaches during class workshops in support of the appropriation of scientific concepts (MELS, 2006). We witness that science teachers still resist moving away from an empiricorealistic conception of experimental methods as they propose learning tasks to students (Barma, 2011, Désaultels and Larochelle, 1989). More specifically, in the context of school science education, teachers can be expected to experience a basic contradiction between teaching for tests and grades versus teaching for supporting students' mastering their own relationship to a sociotechnical society. For Fourez, being technoscientifically literate means knowing how to use knowledge for choice and decision, and not focusing on its value in an ivory tower (Fourez, 2002). We lead participant teachers to question the way scientific enquiry is presented to students in order to better link theory with practice: by engaging students in technological design processes in building prototypes and making more sense of scientific concepts (Lacasse & Barma, 2012). Our team will present how, over a period of six years, the researchers and teachers endeavoured to at sublate dichotomies between science and technology in teaching and learning. The analysis of recurring tensions and the emergence of levels of contradictions will be at the heart of our discussion. We conclude that their resolution is only accomplished through practice with the teachers who co-modelled the learning situations with us.

**Format:** Paper presented in a Symposium (175)

# Struggling for a culture of development and agency in student work (346)

Lara Margaret Beaty *(LaGuardia Community College, CUNY)*

Higher education involves ways of thinking and activities that are sufficiently outside the "real world" to have been dubbed the "ivory tower" with both positive and negative connotations. The academic culture is diverse, yet to newcomers, its complexity tends to be lost in a series of assignments and tasks that obscure the ideologies underlying them. The difficulties of new students are particularly apparent in community colleges—the two-year institutes in the United States that serve as a mix of vocational training and entry points for four-year institutes. In an effort to help students become enculturated to academic culture, a research group is in its sixth year, but the struggle to reveal individual and group development is still floundering as the struggles to keep the group functioning take precedence. In this paper, this struggle becomes the focus: The structuring of the group by the author is the topic, examining artifacts and video recordings of meetings to consider how I have changed in my efforts to fix problems and respond to individuals and group dynamics because I have been the only constant over these six years. Qualitative analysis seeks themes, styles, and structures that I attempted to impose as well as the specific student actions that were involved in their emergence, guided by the question of what is development and what is simply change. Have the group and I "developed" or simply responded to the changing context? What might this even mean?

**Format:** Paper presented in a Paper Session

# Mediating Teacher Learning Within a Professional Learning Community Through Video-Based Discussions

Stephanie Beck *(McGill University)* & Nilou Baradaran *(McGill University)*

Recent research suggests that teachers learn more effectively when they engage in iterative cycles of co-design, enactment, and collective reflection. However, much remains to be understood in terms of the mechanisms and processes that contribute to teacher learning throughout and as a result of these reflective activities, specifically in the context of professional learning communities (PLCs). For this presentation, we utilize cultural-historical activity theory (CHAT) as well as expansive learning (Engeström, 1987; Engeström & Sannino, 2010) as our theoretical framework. Our aim is to provide rich descriptions exploring the movement of the object shared amongst a small group of mathematics teachers collaborating within the context of a research-practice partnership. Qualitative discourse analyses are used to track and analyze the object, initially established during teachers' co-design conversations, and how this object is transformed by the time the teachers participate in collective reflection conversations. Such an analysis may allow us to better understand teacher learning processes in PLCs and thus how to better facilitate productive and reflective teacher discussions in current and future research-practice interventions.

**Format:** Paper presented in a Symposium (340)

# Vocational teachers' assessment actions as border workers between school and workplace (013)

Ingrid Berglund *(University of Gothenburg)*

In upper secondary vocational education and training (VET) in Sweden, students can choose to carry VET programmes as primarily either school-based or workplace-based education. The latter alternative is called

apprentice education, and students are not considered employees but apprentice students. VET teachers have an official mandate to follow-up and mark VET students' knowledge in all aspects of education, including the workplace using information from workplace supervisors. VET teachers are aware of this mandate as their responsibility, but they also carry out other duties based on demands from the workplace. The focus in this paper is on informal assessments. VET teachers have a dual identity. They are skilled workers as well as teachers and can be defined as

border workers between school and the workplace. They integrate vocation-specific demands into school-based learning, but they also have a mandate to ensure students obtain broad vocational knowledge through workplace- based learning by identifying what the workplace can provide the students. VET teachers are usually responsible for supplying students with appropriate workplaces. This means that VET teachers deal with the dual responsibility of a student's right to gain access to workplaces and the workplaces' demands on the student. The assessments when matching students with appropriate workplaces can be realized with VET teachers acting as gatekeepers in the

border zone between school and the workplace. In this paper, this border work will be analysed from an activity

theoretical perspective.

**Format:** Paper presented in a Paper Session

# Children's explorative activities in Kindergartens in China and in Norway

Åsta Birkeland *(Copenhagen University)* & Hanne Værum Sørensen *(Copenhagen University)*

In this comparative study, we discuss the cultural-historical conditions for young children's play during outdoor playtime as basis for conceptualizing children's explorative activity in a global perspective. The research focuses on the conditions for explorative play in kindergarten and children as explorative players. Play is regarded as the most important source for children's learning and development (Vygotsky, 1966). In the Nordic countries, kindergartens have a historical tradition to emphasize play in kindergarten's curriculum and practices. In China, play has traditionally had a minor role in early childhood education, but in recent educational reforms for early childhood education, the importance of play has been emphasized. Our research is based upon a cultural-historical approach to the social situation of child development, and we draw on Hedegaard's concepts of development as individual, institutional and societal processes. In order to capture the global aspects of early childhood education, we see the necessity for widening the model by including a global level (Hedegaard, 2009). We investigate one kindergarten in China and one in Norway by obtaining video observations, children's photos of places on playgrounds, and interviews with manager and staff. Our hypothesis is that there is a strong global exchange of ideas and anticipations in relation to what children shall learn in kindergarten as preparation for later life. We find it necessary to analyze the institutional conditions and children's activities in a global perspective as well as a societal perspective to understand the social situation of child development in outdoor playtime in China and Norway.

**Format:** Paper presented in a symposium (038)

# Conservationist discourse in zoos: contributions from historical-cultural perspective (279)

Alessandra Bizerra *(University of São Paulo)*, Helen Akemi Nomura *(Secretaria Estadual de Educação/SP)* & Thiago Merissi *(Secretaria Estadual de Educação/SP)*

The Biodiversity Conservation is a recurrent theme in different social spaces. In political, academic or educational spheres, many are the actions aimed at the optimum condition of the natural environment. However, there are also extensive human actions that affect the current environmental crisis, generating tensions and conflicts that pervade the daily lives of citizens. Decisions taken individually or collectively, comprise, in general, different levels and require a more complex view in the dialectical way of overcoming these contradictions. Among the most recognized educational institutions as geared to the conservation, are zoos and aquariums. However, in the Brazilian scenario, there are still few studies that investigate the impact of these institutions to strengthen a culture of conservation. In this proposal, we will focus on the concepts and practices manifested in different discourses involved in educational and communication processes in zoos, as well as their similarities and differences. We investigated three partner institutions (one Spanish and two Brazilian zoos) and interviews with exhibition designers and visitors (family groups), visit recordings, field observations and document analysis have been developed. An analytical framework analytical was created to investigate biodiversity conservation discourse. Data analysis pointed to a connection between discourses displayed in zoo exhibitions and discourses presented by visitors, but also to a gap between visitor and zoo professionals discourses.

**Format:** Poster

# A CHAT about animation: Extending activity theory into studio animation (316)

Janet Blatter *(National Film Board/Office National du Film - Scholar-in-Residence)*

How can Activity Theory (AT)/CHAT be used to reveal cognitive phenomenon in the design activity of time-based media such as animation? This under-researched activity provides a fertile ground to study complex cognitive processes such as team-based problem solving and spatiotemporal thinking. Significantly, design practices such as animation center around extreme "wicked" problems that have weak or ad hoc rules, methods, and multiple and conflicting goals. (Rittel and Webber, 1973). In an effort to provide a comprehensive description of the problem space, AT/CHAT has to be used as a theoretical and methodological framework (Nardi, 1996) in which to ground the research in a manner that allows a principled descent from activity to action, from the mediated and social contexts to lower-level cognitive phenomenon. Building on over 15 years of field research with animators, and focusing on a year-long research at the Animation Studios of the National Film Board of Canada, key findings are summarized and discussed as presenting issues for understanding studio animation. At the same time, this research poses some questions regarding the nature of the CHAT "nodes", "outcomes", and the trajectories between Activity and Action in "wicked" problems of design. In particular, it raises the question of "where do your outcomes go when they go out"?

**Format:** Paper presented in a Paper Session

# L.S. Vygotsky methodology as a way of solving the problem of creativity and giftedness (389)

Diana Bogoyavlenskaya *(Institute of Psychology of the Russian Education Academy)* & Liubov Kotlyarova *(All-Russian State University of Justice)*

Based on Vygotsky's methodological concepts, Bogoyavlenskaya's original approach to studies of creativity and giftedness and to building up creativity typology, corresponding to cognition level, is represented. The application of the creativity diagnostic technique (The Creative Field) in the sphere of education is described.

**Format:** Poster

# The complexity of school-community relations as a dialogical mesocultural context for students' development (298)

Theresa Raquel Borges de Miranda *(Universidade de Brasília)* & Angela Maria Uchoa Branco *(Universidade de Brasília)*

This research aims at identifying and analyzing the cultural and personal meanings, concerning school-community relations, presented by a male adolescent living in a poor area of a satellite city, close to Brasilia, Brazil. We used an ethnographic approach followed by interviews with a group of teenage students attending to a 6th-grade class in a public school, from which we selected Victor (fictitious name), a 15 years-old boy, to carry out an idiographic investigation. One particular interview with Victor took place immediately after he was expelled from the school, due to suspicions that he was directly involved with drug trafficking. Results show that Victor lived his everyday life under the strong tension between the drug gangs' and the school's cultures. The school never approached nor discussed the existence of such opposite contexts. Even though situated in a community where crime gangs prevailed, school professionals simply ignored the problem and did not discuss the terrible conflict lived by students like Victor, and this resulted in continuous suffering and the escalation of school-community conflicts.

**Format:** Paper presented in a Paper Session

# Play is Hope: Creating Community and Conversation, Thessoloniki, Greece

Elena Boukouvala *(Play is Hope)*

Play is Hope is a "coming into being" organization that creates opportunities for play in refugee camps and communities in Europe. In collaboration with local community organizers, we have worked in several refugee camps in Greece stimulating new conversations and building communities through performance. Responding to the leadership of young people Play is Hope has organized multicultural events and cosmopolitan trips: music concerts, dance events and playgrounds in local cities.

As an example of the work Play is Hope is doing, we will discuss a poetry exhibition initiated in Lesvos by Sham, a young person from Pakistan. Together with Sham, we collaborated on the production of a series of interactive performance exhibitions: 'Let's Start a Dialogue'. The audience of both refugees and locals was invited to respond to the exhibits with their own creations which then become parts of the exhibition. 'Let's Start a Dialogue' has already taken place in Berlin, Belgrade and New York. It is now heading to London and Thessaloniki with the goal of spreading across Europe. Sham's poetry emerged in response to his fear of deportation to Pakistan. While the exhibition was developing, he has rejected asylum from Europe. Our playful dialogue that has involved by now a hundred of people around the world is a political act. Our politics are not attached to a specific ideology other than the discipline to keep on relating to everyone involved in play as creators of their lives and our history, especially under conditions that are limiting our ability to choose and create.

**Format:** Paper presented in a Symposium (111)

# Challenges of collaborative research in a cultural-historical perspective: the relevance of the relationship between school and community and the multiple meanings of environment (326)

Elizabeth Braga *(University of Sao Paulo)*

For the purpose of this presentation, we will focus on the challenges of two projects developed in São Paulo, Brazil, that are deeply connected with the researched realities. The first one had as basic aim the investigation of the relationship between memory, narrative and experience in accounts produced by people from a school setting and the local community. Articulated to it, in a collaborative work, extension projects were developed, with the active participation of the school team and the acknowledgment of school and community history. The second project is being carried out in two Unified Educational Centres (CEUs) – complexes built in peripheral areas for educational, cultural, sportive and leisure activities –, with the aim of exploring the importance of school practices, spaces and context, related to narrative, memory and imagination practices. In an interdisciplinary approach, we try to analyse the conception and use of these spaces; to create opportunities for the arising of narratives about the environment and the local communities, and to apprehend in the accounts social practices of memory and imagination. The main challenges for the related researches have been to entwine diverse methodological perspectives and to provide the collaborative character of the research, ensuring that the work can consider the point of view of the subjects involved. The studies are based on the assumptions of cultural-historical perspective and explore the possibilities of analysis mainly from the concepts of "semiotic mediation" and "social situation of development" (Vygotsky), considering context as a dynamic, relational, meaningful and interpretative dimension.

**Format:** Paper presented in a Working Group Roundtable

# Space, Discourse, and Meaning in a Transdisciplinary Design Studio

Carol Brandt *(Temple University, USA)*

This micro-ethnography of a design studio brings together scientists and doctoral students from molecular biology and human geography at a research university. As 13 students and two instructors engage in the design critique, they position or align themselves to a new transdisciplinary domain of bio-social knowledge. This study (using participant observations, audio, video recordings, and student artifacts) documents pedagogical pivot points in the design crits and participants' use of the studio space as they work towards mutual understanding over one academic year. Similarly, Davies and Harré (2000) speak about "positioning" or how speakers position themselves in dialogue as being the key to understanding agency. Students cited the unfamiliarity of the studio; it was like nothing they had experienced previously in their university experience. Yet, this disorientation had productive and creative results, pushing them into a new "discomfort" and understanding of themselves as academic border-crossers.

**Format:** Paper presented in a Symposium (261)

# Rich artefacts at the boundary of the activity systems of teaching and research (340)

Chair: Alain Breuleux *(McGill University)*

Discussant: Malcolm Reed *(University of Bristol, United Kingdom)*

Alain Breuleux *(McGill University)*, Marta Kobiela *(McGill University)*, Gyeong Mi Heo *(McGill University)*, Stephanie Beck *(McGill University)*, Nilou Baradaran *(McGill University)*, Martijn van Schaik *(Meester! onderwijs inzicht, Fontys University of Applied Sciences & NCOI University)*, Scosha Merovitz *(McGill University, Bishop's University)*, Sophie Pinard *(McGill University)*, Cheryl Cantin *(Eastern Townships School Board)*, Malcolm Reed *(University of Bristol, United Kingdom)*, Terry Lin *(University of Alberta)* & Hailey Iacono *(McGill University)*

This interactive symposium brings together researchers and practitioners (elementary and high-school teachers and pedagogical consultants) to examine the different ways that video data from authentic classrooms are interpreted in the respective and hybrid activities of research and teaching. Most participants are from a research-practice partnership –PRACTIS (Partnership for Reflective and Collaborative Teaching, Inquiry and Support)– that includes a university-based research team and school-based pedagogical consultants and teachers, engaging in, and investigating, activities of: a) co-design of challenging learning activities, b) video capture of authentic classroom activities and, c) collaborative reflective conversations. Video-based artefacts documenting students' work are used as boundary objects, allowing collaborative design and reflection as boundary activities between teaching and inquiry/research, mediated by rich artifacts from practice (mostly but not limited to video records of classroom events), that are experienced mostly through discourse, and that can be scaffolded by various facilitation processes. We share the perspectives on design and reflection as culturally mediated action, and investigate how to move "from individual reflection on action to joint reflection on collaborative activity" (Virkkunen & Ahonen, 2011). Our analyses identify key elements of the activity systems of collaborative design and reflection, the socio-technical conditions enabling the productive capture and use of videos, the possible tensions and contradictions that emerge and how they are resolved, the mediating cultural tools, conversational manifestations and artefacts that are used, and how participants are responsive to features of the situations and develop adaptive forms of expertise.

**Format:** Symposium

# Underachieving students or underachieving education? (258)

Anna Broman *(Stockholms universitet Specialpedagogiska institutionen)*

The current paper aims to analyze the problem of underachievement at school from a CHAT perspective.

'Underachieving students', 'struggling students'– these are just some of the many words which are used to describe students who cannot cope with the demands of the educational system. Should all these cases be in the competence of Special Pedagogy? Or may it be that it is actually the educational system itself that is struggling and underachieving? The main paradox of the modern special education is that it is supposed to help students in their struggle against the difficulties that
the educational system has created.

The main question which special pedagogy has to answer is: "How should the 'underachieving' education be organized in order to become 'achieving', to develop all students, thus to become truly inclusive?" The answer which the learning activity theory gives is that learning content should not be a 'piece of knowledge' served to students by teachers, but an object of students' activity and the means of action; education should be organized as the learning activity. That means that educators have to answer three key questions:

- What should happen to the student?
- What should the student be doing so that this happens?
- What should the teacher be doing in order to organize such activity?

As long as the educational system will be working in the name of the pre-established knowledge requirements and delegate responsibility for the whole process to teachers and students, all main educational goals, as well as inclusion, will remain utopias.

**Format:** Paper presented in an Interactive Paper Session

# Design-based professional learning with mid-level teacher leaders (437)

Barbara Brown *(University of Calgary)* & Sharon Friesen *(University of Calgary)*

This one-year design-based research study involved 339 teacher leaders in elementary and junior high schools from one school district in Alberta involved in design-based professional learning. The research team found mid-level teacher leaders engaged in ongoing design cycles can influence school improvement through continually sharing evidence of learning from both students and teachers with each other. The findings suggest design-based professional learning supported by a collaborative team of researchers and professional learning experts requires a continual focus on using evidence as an indicator of growth and for building adaptive versus routine expertise.

**Format:** Paper presented in a Paper Session

# Integration of refugees to road traffic culture in their country of destination (168)

Eva Brustad Dalland *(Nord University)* & Roger Hanssen *(Nord University)*

This project is a consequence of the stream of refugees to Norway, which brings about various challenges in our community. How can refugees act and be a part of our culture of road safety? In the Norwegian community, road safety has a top priority to maintain human health. The National Transport Plan (2002-2011) describes how the Vision Zero states that the community cannot accept injuries and fatalities linked to road accidents. When refugees from another culture are moving in our traffic system, unfamiliar situations and conflicts arise. How can refugees develop attitudes to interact in our culture of road safety?

To create a practical oriented training for refuges, we collaborate with students and practical training supervisors from the Department of Education of Driving Instructors. We try it out in real life situations in local centers for young refugees aged 15-20 years. Seat-belts, bicycle helmet and wearing reflective equipment when walking in darkness are artefacts in the pilot project. The language combined with pictures and practical actions is a key to communicate the message properly.

Tensions in the Activity system led to this project, and the process can be explained by the expansive learning circle. A collective activity is involving our students, making use of their competences and diversity. Our data collection brings knowledge both about how the refugees look at being road users, and how the project influences their road safety thinking, and how the students embrace a wider horizon of possibilities in their study.

**Format:** Paper presented in a Working Group Roundtable

# The use of blogs, Skype and authentic tasks in the modern language classroom (091)

Sara Bruun *(Höörs kommun Ringsjöskolan)*

How can teachers bring the world into their classrooms by using modern techniques and different digital tools? Today's teachers have tasks that are wider than teaching pupils how to read and write. Teachers need to build bridges and have an intercultural perspective. In this talk, I will show you how we combined literature about the second world war with digital tools such as Skype in the Classroom, guest speakers, and a blog. I did this to help the pupils understand both the past and the present and develop their English at the same time.

**Format:** Poster

# The subject, equal participation and practice: an analysis from a cultural-historical perspective (265)

Yara Lúcia Mazziotti Bulgacov *(Universidade Positivo)*, Raquel Dorigan de Matos *(Universidade Estadual do Centro-Oeste - Unicentro)*, Jucelia Appio *(Universidade Estadual do Oeste do Paraná - Unioeste)*, Sieglinde Kindl Cunha *(Universidade Tuiuti do Paraná – UTP)* & Liliane Canopf *(Universidade Tecnológica Federal do Paraná – UTFPR)*

The present study addresses the relationship between equal participation, in its political dimension, and the practice of the subject in real concrete conditions. It originated, in some respects, from studies conducted by the Political Economy of Power and Organizational Studies Research Group on the collectivist forms of management, power and labor. In other respects, it originated from discussions held by the Practical Research, Subjectivity and Organizations Research Group on the works of Engeström regarding Activity Theory and its roots in Vygotsky and Leontiev, seeking possibilities for reconciling them. The aim is to arrive at an understanding of the practice of the subject, considering the cultural-historical perspective in a concrete and situated reality.

**Format:** Poster

# The Fred Newman Center, Ciudad Juarez, Mexico

Jorge Burciaga *(The Fred Newman Center)*

The Fred Newman Center for Social Therapy has been providing leadership in the border community between the United States and Mexico for over 6 years. The center is located in Ciudad Juarez where the level of violence seen in the past years has taken a heavy emotional toll on the population. Today we see an emerging cultural renaissance with murals on street corners, youth doing music, and street performers putting on a show on car stops. However, there are still many profound challenges with violence, corruption, and social unrest continuing and compounding the social and emotional damage of over a decade of extreme violence. During this period of transformation, the staff of the Fred Newman Center has been building a community of play and development activists with several groups across different settings (both educational and therapeutic) and involving collaboration with different organizations, NGOs, and independent groups. It is a heterogeneous group who have participated in workshops, classes, social therapy groups, and collaborations. At ISCAR we will share the impact that the activists say performance has had on their lives, their work, and in how it has transformed their perspective with respect to learning, growing creating, and building community.

**Format:** Paper presented in a Symposium (111)

# Inquiry into the mediation of self-regulated learning

**Alexandre A. J. Buysse** *(Université Laval)*

Extensive research on Self-Regulated Learning (SRL) has revealed its importance in respect to academic achievement. Different ways to enhance the development of SRL have been found, and the various factors underlying it have been studied, ranging from cognition to volition and emotion. Different approaches have led to different tenets proposing different teaching methods: from direct teaching to inquiry-based learning. Notwithstanding this wealth of information, there are few overarching theories taking into account different contexts and learning activities. Based on our extensive review of the existing literature and our own research, we propose a theory based on the study of different mediations, their internalization, the differences in their transmission as well as the different processes they influence. We consider mediations according to their controlling or structuring nature, and we analyse them as being composed of knowledge but also of processes that allow their internalization. These processes can be further analysed according to their characteristics and potential effects on reflexivity. They are then seen as having a potential to provoke ongoing developmental changes in different levels and fields of consciousness. This translates then into a potential increase of self-regulation and of self-regulated learning across domains. We also outline the effects of structuring and controlling mediations, as well as their direct or indirect transmission, according to cultural activity and internalized culture.

**Format:** Paper presented in a Symposium (087)

# Thinking tensions between learning and development in a Vygotskian perspective (087)

Chair: Alexandre A. J. Buysse *(Université Laval)*,

Alexandre A. J. Buysse *(Université Laval)*, Anne Clerc-Georgy *(Haute Ecole Pédagogique Vaud)*, Isabelle Mili *(University of Geneva)*, Christiane Moro *(University of Lausanne)*, Philip Laflamme *(Université de Sherbrooke)*, Luis Radford *(Université Laurentienne)*, Frédéric Saussez *(Université de Sherbrooke)*, Stéphane Martineau *(Université du Québec à Trois-Rivières)*, Raymond Madrigal Perez *(Universidad de Ciego de Avila)* & Catherine Pilon *(Université de Sherbrooke)*

This symposium aims at exploring in how far a Vygotskian or Cultural activity theory framework can help overcome the tension between teaching, learning and development. It is a quest for a modest synthesis of the present knowledge and of different fields of expertise in order to find a path towards "reading" the recent advances in research. Therefore, we have brought together researchers from different fields of study who are not necessarily experts in sociocultural activity theory, from neurology to didactics and from early age development to professional development, but who are willing to exchange in that perspective. Indeed, if there are some principles to be found, it should be valid through different fields of practice.
For each contribution, we'll start a debate on how they relate to the results from the other researchers, and we'll pinpoint how the theoretical perspective that underpins our symposium can help make sense of the global picture and bring us to recommendations for the field of practice.

**Format:** Symposium

# Building communicational competence within a cultural-historical environment. An interview study of young non-verbal people and their families (088)

Louise Bøttcher *(Aarhus University)*

The legacy of defectology, Vygotsky's theoretical work on children with disabilities, still offers a useful approach to disability research. Vygotsky understood disability as an incongruence between the individual's psychological structure and the structure of cultural forms. The incongruence describes a dialectical relation between the person with a disability and the surrounding society. The aim of this presentation is to explore and elaborate Vygotsky's concept of incongruence. This will be done through a study of eight young people who, due to congenital motor impairment, have severe difficulties in developing verbal speech. The young people and their parents were interviewed about the life history of the child and the family vis-à-vis becoming able to/making their child able to communicate. Unlike development of verbal speech, the zone of proximal development for children using alternative ways of communicating has to be created and recreated as the children grow. Children and parents' choices of both low-tech and high-tech communicational technologies are guided by the particular verbal and motor abilities of the child, current trends in AAC (Augmented and Alternative Communication) practices, available technologies and the child's own preferences. Both the children, now young persons, and their parents figure as active agents in the construction of a mode of communication.

**Format:** Paper presented in a Paper Session

# Drug addiction view from the perspective of the Theory of Subjectivity: giving a new meaning to the human aspects of addiction (231)

Thamiris Caixeta *(University Center of Brasilia (UniCeub))*, Fernando González Rey *(University Center of Brasilia/ University of Brasilia)* & Valéria Mori *(University Center of Brasilia (UniCeub))*

Reflect on the context of drug addiction, from a cultural-historical perspective and using the constructive-interpretative method, which is based on the Qualitative Epistemology (González Rey, 1997, 2005b), brings the possibility of thinking about subjectivity processes that pervade the genesis of addiction and that go far beyond the causality proposed by current studies on drugs that were developed according to the positivist science and the biomedical model. In this sense, it is known that the production of knowledge is determined by valuing the natural and dialogical in the course of information construction process, social subjective and, to consider the drug addict in their historical and cultural context, which relates their social subjective production recursively. Thus, to understand the subjective senses of production associated with the abuse of psychoactive substances, as the proposed objective of this study, it was considered in this dynamic research work pregnant women in hospitalization for cracks abuse.

**Format:** Poster

# Conceptualizing La Clase Mágica as a bilingualism and biodiversity program

Catalina Calderón *(ICONK),* Olga A. Vásquez *(University of California, San Diego)*

La Clase Mágica in Colombia has worked on three different fronts with the common goal of designing environments for the learning of English as a second language through the study of local biodiversity as a strategy of cultural appropriation, at Los Llanos Orientales in Colombia. Known as "The Bilingualism and Biodiversity Program" (BB), this variation focuses on reducing the gap between language and knowledge of biodiversity that exists both locally and on a scientific level. Two strategies arise from this perspective: first, the viewing of program participants as holders of tacit knowledge (empirical) capable of transmitting their knowledge to others and second the acquisition of new knowledge that benefits and contributes to local and regional development through documentation processes that ensure sustainability beyond the spoken word. Through the incorporation of these strategies, we will exploit the innate curiosity of students and their intrinsic motivation to acquire learning new skills, develop scientific thinking, observe and interact with others and the environment, and rescue the spontaneity of oral and written expression. The Program aims to examine innovative strategies for managing the learning of foreign language from three angles: a) positing error as an opportunity and as a natural part of learning b) incorporating Spanglish as a transitional element in the learning of English; and c) closely linking language and culture, understanding that learning the language of another does not mean forgetting one's own culture, but sharing it. Thus BB has developed a three-prong approach: Offering a practicum Teacher-training Education course on pedagogical strategies, an English program for kids that allows learning English as a foreign language and an English program for non-English teachers (that must teach English).

**Format:** Paper presented in a Symposium (151)

# Thinking in Spanish: conceptual development and discourse in the Foreign Language classroom (332)

Mar Calero-Guerrero *(Mahidol University International College (Salaya, Thailand))*

This research study is aimed to entangle the factors that lead to student's development of thinking when learning Spanish as L2 in Thailand at University level. Vygotsky's notion of word meaning as a unit of analysis is the key to investigate thinking and speech; therefore, the core of this research. However, the idea of word meaning of Vygotsky is also studied in relation to Bakhtin's conception, taking into account the role of authority and power. The notion of Bakhtin's internally persuasive discourse in relation to conceptual development is used as the methodological tool to analyze students' interaction when learning about culture and history of Spanish-speaking countries. The appropriation of internally persuasive discourse together with concepts related to history and culture is aimed to foster students' awareness of the mediation role of culture in their own lives as well as to enable them to interpret cultural artifacts in a more systematic manner so that they can understand their own social and cultural life. The classes are designed following Chaiklin and Hedegaard's radical local approach. Class interaction has been recorded during 6 months, and this data together with students' oral and written assignments are analyzed in order to shed light on how conceptual development and discourse are related and can promote students' awareness of their own social community.

**Format:** Paper presented in a Paper Session

# Developing theoretical thinking regarding culture in the Spanish classroom as a Second Language (333)

Mar Calero-Guerrero *(Mahidol University International College (Salaya, Thailand))*

This research project attempts to answer the question of how cultural and historical theoretical thinking can be developed in the Second Language classroom. The objective is to investigate to what extent a questioning and reflective attitude can be developed in the students when they are engaged in the interpretation of cultural artifacts, integrating the students' theoretical thinking with their personal experiences. Cultural artifacts such as festivals like The day of the Dead are analyzed by the students using the main concepts (the Hegelian relationship between society, individuals and culture) to concede integrity to the reality of Latin-America as well as to internalize a different discourse.  The hypothesis is that students' internalization of this theoretical thinking, as well as a different type of discourse, will mediate the students' development of a conscious reflection of the mediation established by their own culture and history. The data collection consists of the students' written and oral assignments, which are analyzed to track the students' development of these concepts over a 2 years period.

**Format:** Paper presentation on PhD Day

# Potential activity: On the nature of scientific knowledge and human development in science education (259)

Juliano Camillo *(Federal University of Santa Catarina)* & Cristiano Mattos *(University of São Paulo)*

There has been throughout the last decades different movements within Science Education. One particular movement, which can be called "Science as Human Activity" aims to overcome conceptions about science as value-free and detached from particular contexts of production; and that scientific knowledge is absolute and ahistorical. Within this perspective, there are two predominant trends: one that introduces social relations into scientific agenda but keeps untouched the core of scientific production; and the other that transforms
Science into pure discursive consensus among researchers.

On the other hand, Vygotskian approach has been bringing considerable contributions to understand educational phenomena within Science Education field. We argue, however, that these contributions are mainly focused in analyzing science classrooms and/or proposing new forms of activities, giving little attention to questions about the nature of scientific knowledge and its significance to human development.

In this sense, we draw on a theoretical perspective we call Potential Activity (in tune with Vygotsky, Leontiev, Freire, and Stetsenko, who brings contributions to overcome ontological breaks between human activity – which includes knowing, transforming the reality, and becoming human and an outside reality – whose core is essentially ahistorical) to understand the problematic nature of the reality and its role as driven-force of scientific and human development.

Within this perspective, we seek to bring an alternative to those predominant trends, illustrating how human development (and science development as part of it) is an integral process by which humans make up themselves transforming the reality, i.e. through/and in the reality actively.

**Format:** Paper presented in a Paper Session

# Study groups: Survival strategy in physics undergraduate program (109)

Antonia Candela *(Centro de Investigación y de Estudios Avanzados)*

This sociocultural study examines the collaborative learning practices (Vygotsky, 1984), in spontaneously created study groups of physics Mexican undergraduates for the purpose of completing their problem-solving homework. These groups articulate individual work and collaborative work, where the more competent students help others understand (ZPD), but these roles alternate frequently. In order to face disciplinary complexity, the differences in the possibilities of students understanding, and their diverse social and working conditions, the study groups comprised a form of peer interaction that open opportunity times (kairos) with students acting as bricoleurs. The construction of different roles within these groups and their frequent alternation produce qualitatively variable timeframes, inasmuch as time is a socially dependent category. Time is shown as a category of action that does not change uniformly, but is modified depending on the differential social action undertaken by students in their problem-solving processes. The study group provides the timely support that each participant requires, at the moment of opportunity (kairos) when he/she is working and encounters an obstacle or doubt that keeps him/her from continuing to build the solution to the problem. Thus, students act as bricoleurs, because they work with the resources that are available in any given situation. The way students help others at the moment of opportunity works in reducing students' intellectual differences, as well as their differences in possibilities and aptitudes. Furthermore, complementary work and mutual supervision also save students chronological and emotional time by reducing the frustration of not being able to solve a complex assignment.

**Format:** Paper presented in a Working Group Roundtable

# Emotion in practice: researching from a cultural-historical perspective (081)

Liliane Canopf *(Universidade Tecnológica Federal do Paraná – UTFPR)*, Jucelia Appio *(Universidade Estadual do Oeste do Paraná – Unioeste)*, Raquel Dorigan de Matos *(Universidade Estadual do Oeste do Paraná – Unioeste)*, Yara Lucia Mazziotti Bulgacov *(Universidade Positivo)*, Denise de Camargo *(Universidade Federal do Parana' e Universidade Tuiuti do Parana')* & Sieglinde Kindl Cunha *(Universidade Tuiuti do Paraná – UTP)*

This work is linked to the works of the Practice, Subjectivity and Organizations UP/CAPES/BRASIL research group of the Research in Management Nucleus (UTFPR), which is also part of the research projects for the Study of Educational Practices: promoting human development and defending the diversity of the Line of Research in Cognition, Learning and Human Development UFPR/CAPES/BRASIL. The aim of this work is to return to the ontological, epistemological, methodological and conceptual concepts that guide the bibliographic production of authors in these lines of research. These concepts have to do with research practices from a cultural-historical perspective, with emphasis on emotion in this human activity in concrete conditions of existence.

The authors use the concept of social practice as an analytical category, understanding it as "the smallest significant unit of study for organizational research" (Bulgacov et al., 2014, p. 02). The concern is the establishment of conceptual foundations that supported for qualitative research development This research practice considers both the researcher and the research subject as reflexive beings capable of assigning new meanings to their actions, broadening the scope of their power to act, counteracting traditional forms of organizational research and including the research subject: "As a protagonist in the reflexive activity in research that describes and analyzes together with the researcher, increasing his awareness of local practices and global texts, and assigning new meanings to his actions, broadening the scope of possibilities regarding his power to act" (Bulgacov et al., 2014, p. 12).

**Format:** Poster

# Observing Mexican children´s agency in a non-school environment (196)

Diego Carrandi *(Western Institute of High Technology and Education (ITESO))*

Most of the public education in Mexico follow an "assembly line" model that does not foster the development of agency in children authentically. This is because schools do not recognize the conceptual existence of agency, and, as a consequence, many of the children´s opinions are silenced or not taken into account. The lack of investigation regarding agency in kids in relation to learning processes is largely due to this. There are a number of definitions and applications of agency. Agency is recognized as a sociocultural concept because it occurs when in interaction with others and is situated in a determined time and space. The research consists in observing moments in which the children's agency becomes evident during a non-school and socioculturally situated workshop. The results obtained from the investigation show that children can have a transformative ability, that agency is a gradual process and that this can have a profound impact on Mexican culture and society.

**Format:** Poster

# Intervention research in a pedagogy course: a critical-collaborative Study Group on reading process (251)

Viviane Leticia Silva Carrijo *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

This dialogue paper presents a Study Group (SG) as an intervention research aimed at creating new modes for educating undergraduate students as proficient readers. The methodological framework was based on Vygotsky's discussions of method as praxis (Vygotsky, 1921-23/1997, 1930/1999, 1931/1997, 1926- 30/1996), in the Marxist practical–materialistic–revolutionary activity, Engeström's (2008, 2009) extensions of Cultural Historical Activity Theory (CHAT), and on Magalhães' discussion of collaboration (Magalhães, 2011, 2014, 2015). The work at the Pedagogy Course was motivated by students' limited awareness of reading. The goal was to involve the Study Group as a community in understanding and transforming the ways in which reading is used in their lives. The methodology used for organizing and carrying out the study was Critical Collaborative Research, considered as an activity system that offers an important context for the critical-collaborative construction of knowledge in Study Group environment. Data was analyzed following Collaborative Argumentation categories (Liberali, 2013). The theoretical and practical work developed was targeted at creating a mutual Zone of Proximal Development that would support undergraduate students through the appropriation of reading as a process. The results showed that the critical-collaborative organization of the Study Group as interrelated activity systems enhanced the students' prospects of appropriating the reading teaching-learning processes. It focuses on the dialogue to create with language an understanding, completing and expanding environment for the articulation of different points of views, supports, counterarguments, conclusions.

**Format:** Paper presentation on PhD Day

# Body by L. S. Vygotsky: Exploring possible understandings of the body in selected works of L. S. Vygotsky (203)

Jessica Casanova *(EF Arr.7)*

First reconstructions and analyses of body and body-related terms will be presented, as described, defined explicitly or merely mentioned by Vygotsky in some selected works. The theoretical background used in order to fulfill this goal is based on hermeneutic approaches including corresponding attitudes and principles. These philosophical and methodological perspectives offer a research framework to reconstruct the most plausible, shareable and coherent interpretations. The hermeneutic spiral movement of going back and forth from parts to the whole within a work and between works is one of the most important methods used in this project. Background questions based on this general framework give some guidance to question critically all kind of interpretations including the researcher's own implicit understandings of the explored topics.

Eventually, this may lead to a first attempt to add a more explicit "body" lens to selected concepts and ideas which may offer practical and methodological applications in educational / therapeutic fields, such as preschools, primary schools and psychomotor fields.

For this purpose, some paths are being inquired simultaneously in order to add interpretation layers to the reconstruction made within and between selected works of Vygotsky.

By offering alternative interpretation perspectives potentially developed on the basis of this research, social and cultural realities may be described and analysed using other nuances.

**Format:** Paper presentation on PhD Day

# Children's resistance in the emergence of learning as leading activity: Playfulness in the transformation of spaces of participation (275)

Paula Cavada-Hrepich *(Aalborg University)*

From first-year primary school (FYP), learning subject matter becomes the main activity of the traditional school practice, replacing and clashing with the previous one: play. Thus, children encounter an educational institutional practice that demands the display of new skills, attitudes and knowledge for ensuring their participation in a new socio-material arrangement. As a consequence, a variety of reactions can be observed in children, from engagement to struggle, resistance and rebellion. One of the main issues is the still rather unknown process of the shift from play to subject matter learning as the leading activity. The purpose of this paper is to explore the emergence of learning as a leading activity focusing on the function of children's resistances to the new conditions. Drawing on a study taking the child's perspective on the transition to FYP in two educational traditions (Danish and Chilean) the following ideas are unfolded: resistance and transformation are part of the process of emergence of learning as the new leading activity; resistance works on two intertwined levels, i.e. in the process of making sense of the demands required by the new social practice, individuals must also resist their own needs and wishes oriented to previous motives; playfulness can be seen as a particular form of resisting and transforming the current conditions based on the functions of play as the previous leading activity; and actions of resistance are culturally and historically shaped sets of demands; but personally related to the individual's trajectories and interests.

**Format:** Paper presented in a Symposium (037)

# The subjective time category as theoretic-epistemological alternative to research on teacher training and professional development of teachers (230)

Érica Cavalcante *(Universidade de Brasília)* & Cristina Madeira-Coelho *(Universidade de Brasília)*

Classical studies in teacher training area (HUBBERMAN, 1992; MARCELO, 1999) investigated the teaching career from categories and stages in professional development and point regularities that are common to the vast majority of teachers. However, these phases do not occur linearly and do not manifest the professional development cycle of all teachers. As they are defined according to legal and administrative definitions of the school environment, these phases serve as a basis to frame the plurality of teachers in a standardized profile with more visible and recurring characteristics. From the studies of Vygotsky (2007) on the meaning and sense categories, and González Rey (2005, 2012) on the theory of cultural-historical subjectivity and qualitative epistemology, we formulated the following question: what is the theoretical-methodological alternative to advance in studies on teacher professional development and teacher training which does recognize the individual-social units, objective-subjective and symbolic and emotional? The construction of subjective time category enable us to show the subjective movement of these units in opposition to the standards set in traditional theories, showing that each teaching subject produces subjective sense not only from the context and circumstances in which he is living in his present moment, but, brings emotional, symbolic, historical burdens that are linked to what he is experiencing at the present time and trigger the subjective productions of these teachers.

**Format:** Paper presented in a Working Group Roundtable

# Inclusion as the object of an intervention: teachers facing school realities (194)

Adriane Cenci *(Universidade Federal do Rio Grande do Norte - UFRN)*, Daniela Vilas Bôas *(Profícere - Instituto de Desenvolvimento do Saber)*, Monica Lemos *(University of Helsinki)* & Magda Damiani *(Universidade Federal de Pelotas)*

The inclusion of special need students in regular schools is a mainstream initiative in Brazil since 2008. This article presents a formative intervention performed with a group of teachers that, for the first time, was working with intellectually handicapped students on final grades of basic education. Such intervention aimed to give support for developing strategies and tools that would promote a collective teacher's learning process, which would result in the generation of better conditions to promote special need students' learning. The investigation was characterized as an interventionist research based on the principles of formative intervention, which is driven by contradictions and designed collectively in collaboration, and a pedagogical intervention. The analysis, which aimed to seize the dynamicity of the object of the intervention, was oriented by the following question: how was the inclusion of special needs students perceived by the teachers throughout the intervention? The results pointed that the most relevant category of analysis was the discursive manifestation of contradictions. Moreover, the categories regarding inclusion as learning and inclusion as a fallacy were also meaningful. Finally, the intervention did not result in transformations, but it certainly brought out the contradictions of the system, although there was not time to overcome them.

**Format:** Paper presented in a Paper Session

# Maya children's learning to be vernacular architects: it needs to be settled into your eyes and you need to have spirit/energy

María Dolores Cervera Montejano *(Cinvestav. IPN)*

This paper presents partial results of an ongoing study on how Yucatec Maya children learn and contribute to sustaining knowledge and practices related to vernacular architecture. The study is a major component of a project on Yucatec Maya knowledge related to vernacular architecture whose ultimate goal is to be declared as intangible cultural heritage. My contribution centers on children's learning by observing and participating in the construction of the tablado (arena) for bullfights associated with festivities in honor of the patron saint. Based on direct observations, I describe children's engagement in the construction. Depending on their age, they may just observe, they may replicate what they observe or have observed, they may pitch in without being asked, they may be in charge of some stages of the process with or without adult supervision. However, learning depends on individual ability to observe (settle into the eyes) and spirit/energy as per expert adults. I finalize suggesting that these two concepts are central to the Yucatec Maya psychological and pedagogical theories and that understanding learning by observation and participation/pitching in requires a broad interdisciplinary approach. That is, what ethnographic, historical, epigraphy, linguistic anthropology, archaeological studies document about the cultural community in which children are born.

**Format:** Poster in a Structured Poster Session (077)

# The role of subject-matter analysis in science didactics: A cultural-historical perspective on food production

Seth Chaiklin *(University College UCC)*

Cultural-historical theory is primarily a psychological theory about and human action and development within meaningful contexts. As a psychologically-oriented theory, it can be relevant to science education research, even if it has not been developed or elaborated specifically in relation to problems within science education. STEM education research can be reduced (roughly) to four major problem areas: curriculum, empirical evaluation of existing practices and conditions, didactics, and professional development, where each of these categories can be concretised further according to grade levels, pupil characteristics, subject-matter content, professional level and so forth. Cultural-historical theory can be relevant in different ways to each of these four areas, where different aspects of the tradition are worked out in different ways in relation to each area. The focus of the present paper is primarily on the didactics category, and slightly in the professional development category. The purpose of this paper is to outline three significant points that have been developed within the cultural-historical tradition that have consequences for these two categories: (a) the relation between research and practice, (b) the idea of developmental teaching, and (c) the idea of theoretical thinking. This paper will present an example of subject-matter analysis for food production and food chemistry to illustrate practical consequences that follow from these three points.

**Format:** Paper presented in a Symposium (175)

# Translanguaging during instructional conversation: A means for linguistic and educational mediation (129)

Elizabeth Chapman de Sousa *(University of Hawaii at Manoa)*

Translanguaging is the fluid use of various languages to communicate. It is considered a natural act of bilinguals; however, in some educational settings, it is underused and even discouraged. Yet, the literature indicates that translanguaging fosters the linguistic and cognitive development of multilingual children. The results of this study demonstrate that translanguaging encouraged the engagement and verbalizations of multilingual children during Instructional Conversation and provided opportunities for linguistic and educational mediation. An Instructional Conversation is a discussion centered on a learning goal between small groups of children and an educator. From 27 hours of video data, three sequences were identified in which the educators encouraged translanguaging, and the multilingual children responded with increased verbalizations and shifts in behaviors marking increased engagement. Across these sequences, the educators positioned themselves and the children as coparticipants during the Instructional Conversation. The discourse contained clear indicators that expertise was distributed among participants. This positioning and distribution of expertise appeared to promote the translanguaging and engagement of multilingual children. The results support the use of translanguaging as an alternative to more traditional ways of talking with young multilingual children. The examples could be used for educator professional development and reflection.

**Format:** Paper presented in a Working Group Roundtable

# Implementing a change laboratory to promote teachers' engagement in autonomously motivated pedagogical practices in mauritius (446)

Angel Anne-Lise Charlot Colomès  *(Université Laval)*

Students' concentration and interests demonstrated in class have been associated with their autonomous motivation in engaging in their school activities. However, the nourishment of such motivation is based upon students' perception of their teachers being in turn autonomously motivated in their teaching practices. According to self-determination theory, autonomous motivation can only be optimized through the satisfaction of basic needs of autonomy, competence and relatedness. Those needs are however thwarted due to the factor of accountability of students' success imposed on teachers and pressures experienced from the combination of time restrictions and bulky curricula. Consequently, under such pressured conditions, teachers' autonomous motivation to engage in class are diminished.

The aim of this presentation is to demonstrate a hypothetical implementation of a change laboratory in a government school of Mauritius Island. The goal of this change laboratory will be to undermine the optimal conditions that are necessary to generate and promote teachers' autonomous motivation.

3-5 teachers along with the headmaster and a representative of the ministry of education are participating in the change laboratory. The unit of analysis is the teachers' teaching practices. Due to the multi-level organizational nature of this change laboratory, the activity triangles of the ministry, the school and the students have been included in the analysis. The hypothesized results indicated various contradictions in the activity triangles but the most salient contradictions identified were between teachers' tools and the object as well as between the school staffs' division of labor and the object.

**Format:** Poster

# Using visual technology reflexively to study father engagement in four countries - a pilot study from a cultural historical perspective (152)

Rita Chawla-Duggan *(University of Bath)*

This paper critically examines the contribution of visual technology for explicating young children's perspectives of father engagement in home learning environments (HLE), as part of a project aiming to study how fathers engage in child development across different national contexts; where we understand development as the sociocultural genesis of a child's mental functions. From this perspective, development is not already formed and consequently requires methodological tools that enable researchers to document and analyse children's intention and engagement across activity settings. Visual technologies hold possibilities to do this. However, whilst they present an opportunity to look at the dynamics of children's development, there is also a need to understand the implications of methods and technologies that form part of them, for the quality of research knowledge produced. At the present time, there is limited critical understanding about the research process when using visual technology for researching children's development.

Accordingly, we ask:

How can we critically examine the use of visual technology to explore how fathers engage in child development within home environments, across four national contexts?

Drawing on footage of children in 12 families in England, Hong Kong, Norway and India, we critically reflect on how we use visual digital technology to explore father engagement from the child's perspective, where the footage is child generated; but also where a reflexive visual research design provides researcher generated footage which enables the researcher to critically examine how the child is positioned in relation to the social situation and the technology used.

**Format:** Paper presented in a Paper Session

# Perezhivanie and preschoolers' emotion regulation in early childhood settings

Feiyan Chen *(California State University, Fresno)*

Recent investigations of perezhivanie have focused on its historical origin, interpretations, related theoretical and methodological issues, and empirical applications in fields such as science and language development. While these have been productive for developing the concept more generally, its potential for understanding, specifically, the development of emotion regulation in early childhood has not yet been realized. Thus, drawing upon Vygotsky's cultural-historical framework, this study aims to examine how adult-child interactions create the conditions for emotion regulation in preschoolers during the homepreschool transition in the early childhood educational settings. The concepts including perezhivanie, cultural development, and the zone of proximal development framed the project. Eight focus children (aged 2-5 years), their parents, and teachers in California were involved in the study. Data were collected by digital video observations, running records, interviews, and field notes. Preliminary findings uncovered that diverse types of teacher-child interactions played an essential role in supporting preschoolers' emotion regulation in the home-preschool transition. The concept of perezhivanie contributed to a holistic understanding of the process of development of emotion regulation. It is argued that teacher practices should be emphasized and enhanced to facilitate the development of emotion regulation in the everyday context of early childhood education. This study potentially contributes to a better understanding of how quality teacher-child interactions can foster children's emotion regulation. It may also demonstrate how the concept of perezhivanie supports empirical studies in emotion regulation in early years.

**Format:** Paper presented in a Symposium (083)

# "Chess for overall development" software in the frame of Reflection and Activity Approach (410)

Aleksey Chernysh *(Moscow State University of Psychology and Education (MSUPE))*

Within a framework of the Reflection and Activity approach and in support of the "Chess for overall development" project the software "Chess for overall development" was made. Its main goal is developing the ability to act mentally. The software consists of 6 stages. Every stage consists of a number of types of tasks. At each type, the students can learn the action on the material plane, and later on, their involvement in working on the ideal plane gets gradually increased. At the end of each type, the child solves every problem purely in his/her head without using any of material tools.

The software makes it possible to establish the following conditions for development:

It allows for quick and accurate identification of which problems of which difficulty level are feasible for the student at any given moment of the training.

It enables the student to proceed within his/her zone of proximal development without forcing this process and without getting stuck on the problems that the student can easily manage by him/herself.

It models working with a chessboard and makes it possible to use material tools when the student encounters difficulties while doing problems at the initial stages of learning.

It helps to travel a long way: from elementary actions relating to identifying a square's location and color to solving challenging mate-in-two-moves problems in one's head.

**Format:** Poster presented in a Structured Poster Session

# Vocational literacy as means for vocational… (242)

Maria Christidis *(The Red Cross University College)* & VIveca Lindberg *(University of Gothenburg)*

The issue of this paper is to explore what vocational knowing is made available for students in Swedish upper secondary vocational education (16+) within the Health and Social Care program, with a specific focus on literacy-related vocational knowing framed by contextualized teaching (previously integration of subjects). A case study of contextualized teaching in a Swedish upper secondary school was followed ethnographically during autumn 2012 in the Health and Social Care program (year 2 of 3). Cultural-historical activity theory was used for analyzing what vocational knowing was made available and what literacy aspects that contributed to this. Teachers constructed a theme, Death, in order to work with ethical content relevant for nurse assistants. Ethical dilemmas and literacy practices (writing notes, reading aloud) were used as tools for enhancing sharing of different perspectives. The object of learning was identified as the ability to change perspectives and taking the other's perspective in a dilemmatic situation related to caring.

**Format:** Paper presentation on PhD Day

# Play as interrelation between spontaneous and reactive learning

Anne Clerc-Georgy *(Haute École Pédagogique Vaud)*

Vygotsky (1935/1995) defines preschool age in terms of systemic changes in the structure of a child's mental development. He takes into account the difference between spontaneous learning (the child learns by his own program) and reactive learning (the child learns by following the program of the teacher). Between these two forms of learning, play can take a privileged place. In fact, the first signs of future higher functions emerge in play. This is the leading activity of preschool age because it promotes significant developmental gains. In play, children choose roles to invest and in which they assign, decide freely to change and develop the rules of action. In this activity, the child gets used to govern its own behavior not only from his immediate perceptions of objects and situations, but also from the meanings that take these situations (Vygotsky, 1933/2002). The play is also the privileged place for subjectivation of tools and ways of thinking that the child observes, imitates, tests or transforms to internalize better. This is a particular form of imitation: it is linked to the understanding the child has of the situation (Vygotsky, 1928-1931 / 2014). Moreover, in play, the child takes risks, it goes beyond what they could handle in a formal situation imposed. Play creates a zone of proximal development (Vygotsky, 1933/1978). But in play, the child can only work from which it was also proposed in the context of more structured learning situations. This contribution will be the opportunity to question the relationship between learning and development, between appropriation and subjectivation, focusing more specifically on the role of play as a space of potential development.

**Format:** Paper presented in a Symposium (087)

# Playing with knowledge in college writing: guiding students to perform, create and take risks in contemporary Vygotskian sense (308)

Natalia Collings *(Central Michigan University)*

Lois Holzman and Fred Newman created powerful ideas based on their readings of Lev Vygotsky (Newman & Holzman, 2013).  Here is how three of them speak to me: What we do are performances we create and not the behaviors that nature subjects us to.  Our performances raise us "a head taller" (Vygotsky, 1978; Holzman, 2008) when we playfully create them anew instead of consuming well-known paradigms.  Knowing is the privileged power that takes power away from unprivileged.  These offers deeply inspired me and reflected in my teaching practices in the context of an American university.  Among other things, I re-conceptualized students' writing.  Instead of consuming traditional genre of analytical essay, students compose scripts of conversations, address letters, write poetry – anything that inspires them and allows to create new meanings.  They work together, they appropriate the words of those who we read in the course, and they leave their work open to the participation of peers – i.e., they engage in "a head taller" performance.  This presentation will showcase the work of my students and the guidelines that scaffold routine collective creativity and taking risks.

**Format:** Poster presented in a Structured Poster Session

# A look at changes in teaching approaches at medical school through the lens of activity theory (441)

E. Alexander Cooper  *(Université Laval)* & Sylvie Barma  *(Université Laval)*

Reflecting on six years of medical training, thirty years of medical practice and ten years of teaching and tutoring medical students, we build on some third generation CHAT concepts in order to better understand some inner contradictions in the process of training physicians from first year medical school to professional licensure. Engeström describes dialectical contradictions as the motor of self-development in real activity systems. Medical training and the practice of medicine are examples of such real activity systems that exist as dialectics. Over the last few decades, medical education has shifted from a system based on a mastery of basic medical classroom and laboratory sciences before ever entering a clinical environment with real patients to a system that exposes the medical student to the clinical environment at the outset, with concurrent instruction in relevant basic science. The new curriculum was implemented in 2000 at Laval University. Classical medical subjects such as anatomy, normal physiology, pathology, and biochemistry are introduced to the medical student only insofar as they are relevant to their clinical teaching activities. Modern medical students are directly introduced into practical application of their growing knowledge base through the use of such mediating artefacts as clinical "vignette" scenarios as well as real clinical situations with real patients. They are presented basic scientific concepts as a secondary and tertiary concept in the hierarchy of learning. Active clinical practice in the form of problem solving is now the primary object of their learning activity.

**Format:** Paper presented in a Working Group Round Table

# Participation, identity, and leadership: A three-pronged exploration of agency in early childhood education (037)

Chair: Maria Cooper *(University of Auckland)*

Maria Cooper *(University of Auckland)*, Helen Hedges *(University of Auckland, New Zealand)*, Robert Lecusay *(Jönköping University, School of Education and Communication)*, Beth Ferholt *(Brooklyn College)* & Monica Nilsson *(Jönköping University, School of Education and Communication)*

Agency is a complex phenomenon that presents itself during interaction with others, as people recognise, interpret and respond to, either individually or collectively, the cultural activities in which they participate (Edwards, 2015). In early childhood education (ECE), understanding the notion of agency in relation to children and teachers isn't always easy for several reasons. For example, it can be argued that children are still developing an ability to fully articulate their intentions, decisions, and actions, and the notion of a teaching team suggests intersecting intentions and decisions about shared activity. With such complexities, it's clear that in order to develop in-depth understandings of agency in ECE, its manifestations, and the conditions and situations in which it emerges, researchers might give serious attention to particular interpretivist methods alongside sociocultural and CHAT theoretical constructs that recognize the potential for agency-in-context to be explored and understood in diverse ways. This symposium addresses these issues by exploring learning, knowledge, and agency in three layers:
1. Exploring the agency and participation of toddlers using sociocultural and sociological theoretical perspectives, a mosaic framework, and child-friendly participatory methods.
2. Examining learning, knowledge, and agency of a young child through sociocultural theory, and related concepts of funds of identity and funds of knowledge.
3. Investigating teachers' collective activity for the emergence of everyday teacher leadership using cultural-historical activity theory and the related concept of relational agency.

Our three-pronged exploration of agency emphasizes agency as a multi-dimensional phenomenon and highlights its significance for all children, teachers, and researchers in early childhood education.

**Format:** Symposium

# Supporting children's initiative: Appreciating family contributions or paying children for chores

Andrew Coppens *(University of New Hamphire),* Lucia Alcala *(California State University Fullerton)*

Collaborative initiative is an important aspect of Learning by Observing and Pitching In (LOPI), and many interrelated family and community practices in LOPI may support children's initiative. In this chapter, we examine two cultural ways of supporting children's helpfulness and responsibility that draw on different cultural paradigms for organizing children's participation in everyday work in U.S. Mexican-heritage and European American communities. European American university students reported having received allowances as a contractual enticement to do assigned chores. In contrast, although U.S. Mexican heritage university students reported having received pocket money from their families, this was a gift, noncontingent on completed chores or good behavior. They reported that this noncontingent support for children's responsibility focuses children on collaborating with the family, and contributing to shared work with initiative, consistent with LOPI, in which children are integrated into family and community endeavors and are eager to contribute. The work challenges traditional dichotomies in motivational theory that attempts to specify the "source" of children's motivation to learn and help within either individuals or social contexts.

**Format:** Poster in a Structured Poster Session (077)

# Children's participation in ceremonial life in Bali: Extending LOPI to other parts of the world

Yolanda Corona *(Autonomous Metropolitan University)*, Dewa Ayu Eka Putri *(Kabupaten Gianyar)* & Graciela Quinteros *(Autonomous Metropolitan University)*

This paper extends a model of how children in Indigenous communities of the Americas Learn by Observing and Pitching In (LOPI; Rogoff, 2014) to another region of the world, by examining which aspects of the model can be applied to the ways in which Balinese children learn with their peers and to adults. We describe clear parallels in the role of observation and communication, the social organization of endeavors, and children's motivation to participate as they learn the music of gamelan (the traditional orchestra) that is used in religious ceremonies.

**Format:** Poster in a Poster Symposium (077)

# US Mexican children working together: Cultural patterns in group organization and forms of interaction

Maricela Correa-Chavez *(California State University, Long Beach)* & Sergio Aguilera *(California State University)*

We examined patterns of collaboration and conflict among 8-year-old children from U.S. Mexican heritage families playing video games in groups of 4 on 2 computers. Each group was shown how to play then left to figure out the game themselves. They were not told how to organize turns, nor with whom to play. The video was coded in 5-second segments where coders identified how many children were on each computer, how they negotiated participation, and how they communicated. Preliminary analysis suggests children from families familiar with LOPI collaborated more often, often to the extent that multiple children were actively controlling the moves. This was less common among children whose families were familiar with school ways, who were more likely to discourage others from participating or helping when it was not "their turn" and more likely to engage in competitive interactions. These patterns seem related to familial participation in LOPI and may be changing as people participate in Western forms of schooling.

**Format:** Poster in a Structured Poster Session (077)

# The formation of environmental educators: a study of knowledge appropriation procedures and concept development in school context (215)

Lorenna Costa *(nstituto Federal de Educação, Ciência e Tecnologia de Goiás)*, Agustina Echeverría *(Universidade Federal de Goiás)* & Cristiano Aparecido da Costa *(Instituto Federal de Goiás)*

Research on environmental crisis involves understanding the relationship between human beings and nature associated with material and social relations which are determined by how capitalist society functions. So, thinking about concepts that need to be addressed during the process of environmental education, we noted the need for a greater relationship between concepts because the conceptual systematization in this field involves the appropriation of concepts from different areas. In this context, the objective of this study is to investigate how the discussion of environmental concepts in a dialectical approach contributes to a new understanding of the appropriation processes of knowledge and to the conceptual development in a specific context of school education. We aim to expand the understanding of the limitations and challenges of a training process - teacher trainer and teacher in initial training interaction - by focusing on environmental issues. This research was methodologically characterized as a "Participant Survey". A study group was implemented in a teacher training course in chemistry. The meetings were videotaped and transcribed, and then analyzed based on the micro genetic analysis. We have observed that the conceptual network presented by the future teachers is part of a system composed of situational, perceptual and experiential criteria. The neoliberal idea of society, which is based on individualism and the free market, had structured symbolic interventions of the individuals. It is important to explain the networking concepts brought by the individuals and to promote questioning and reflection in order to build a society with greater social-environmental justice.

**Format:** Poster presented in a Working Group RoundTable

# Double stimulation as model for the pedagogy of digital literacy (365)

John Cripps Clark *(Deakin University)*

Research has shown that students are expedient and uncritical with the use of digital information. Mostly, the teaching of digital literacy has relied on a checklist of criteria, which has been shown to be ineffective. What is not known, is which tools best mediate the development of students' sophisticated judgments of accuracy and reliability of information. This presentation seeks to address this research gap in our knowledge about digital literacy tools.

The focus is on examining how students flexibly and productively participate in a society awash with emerging and disruptive forms of knowledge creation and distribution, in which students need to develop their own criteria for evaluating the validity of information.

Drawing upon Vygotsky's method of double stimulation, this paper reports on the development and implementation of a pedagogy of digital literacy for undergraduate science students. Students confronted a contradiction: an unscientific website appearing authoritative (anti-vax or anti-windfarm, …). A second activity enabled students to develop criteria for judging accuracy and reliability of information and articulate them in a tool (a decision tree, game or story …) which is then tested by other groups and further developed and applied collaboratively in a video report for assessment. Data came from student focus group, tutor interviews and artifacts.

This research reconceptualises and applies the method of second stimulus in digital literacy. Using artifacts to evaluate complex and problematic sources externalizes the generation of criteria. This process nurtures students' emerging identity as scientists through increasingly sophisticated decision making and metacognitive reflection.

**Format:** Paper presented in a Paper Session

# Crisis and creativity: the development of cultural-historical theory in terms of a drama

Manolis Dafermos *(University of Crete)*

Crisis and creativity constitute important concepts of the conceptual system of cultural-historical theory. The concept of crisis has been used by Vygotsky in the context of a critique of psychology as a "problematic" science as well for the articulation of the specific mechanisms related to psychological development. The concept of creativity has been employed by Vygotsky for the conceptualization of future-oriented human activity. The paper proposes that the concepts of "crisis "and "creativity" can be included in the study of the very process of development of Vygotsky's theory. Vygotsky's creative and dramatic journey was full of various crises, rapid transitions and transformations. Dialectics as a form of conceptualization of contradictions offer a profound insight into antinomies, tensions and crises in the process of the emergence and formations of cultural-historical theory that can be examined in terms of drama. Developing creative action is a way to respond to crises situations and to make the genuine effort to cope with them. The elaboration of cultural-historical theory can be considered in relation to Vygotsky's attempt to cope with multiple challenges and crises (social, scientific, personal, etc.).

**Format:** Paper presented in a Symposium (127)

# Social character and the constitution of the person: language, disability and education (269)

Débora Dainez *(Universidade Estadual de Campinas)* & Ana Luiza Smolka *(Universidade Estadual de Campinas)*

Personality has been conceived and studied in many different ways throughout the History of psychological ideas. Our aim, in this presentation, is to discuss and to deepen the notions of personality and character from a historical-cultural perspective, inspired by Vygotsky's statement that the character is the social mark, or feature, of personality, in dialogue with Erich Fromm's concept of social character. Concomitantly to our theoretical discussions, we developed an empirical investigation involving the case of a 10-year-old student with Down Syndrome and intellectual disabilities in a Brazilian elementary public-school context. We followed that student during the 4th and 5th grades. Field records and video recording were the methodological procedures to register and to construct data. The analysis of empirical material showed how the adults' ways of signifying the student's gestures and behavior, based on assumed negative characteristics assigned and inherent to Down Syndrome, as stubbornness, aggression and indiscipline, affected the student's participation in teaching relations. However, in situations where the student was called to participate, based on assumptions of developmental possibilities, the above-mentioned features attributed to the syndrome acquired different meanings, turning into curiosity, interest and availability. In face of such results, we draw attention to: 1. the inter/intra regulatory function language; 2. the internalisation of alien/another's words, deeply affecting the personality formation and 3. the characteristics strictly attributed to the individual or to the syndrome as social marks and features, social constructed, susceptible, therefore, of (trans)formation in/through social relations and educational practices.

**Format:** Paper presented in a Paper Session

# Plotting activity in cross-cultural relations

Colette Daiute *(Graduate Center, City University of New York)*, Alessio Surian *(University of Padova)* & Christian Tarchi *(The Graduate Center - CUNY)*

Extending the premise that language is a symbolic tool for acting in the world (Engestrom et al., 1999; Vygotsky, 1997), this paper discusses the literary convention of "plot" as a scaffold for interacting in human environments. The paper draws on theories that emphasize pragmatic relations in narrative as material means for figuring out what is going on in the world, how one, fits, and what one would like to change (Daiute & Nelson, 1997; Labov & Waletzky, 1997). Plot elements and structure, thus, serve as lenses guiding perception and action. Studying how people with different histories narrate everyday events offers insights about real-time sense-making processes. We bring this theory to life with 60 study-abroad students' video-logs of "puzzling" intercultural experiences (Surian & Tarchi, 2014). Thirty-two participants from the U.S. studied in Americanized institutes, whereas 28 ERASMUS Mundi students came from different countries and studied among Italians. Plot analyses of the video-log transcripts revealed significant differences in how these groups of students used narrating to interact with Italian culture. ERASMUS students emphasized settings and endings in more detail than the US students. US students included more complicating actions in their narratives, without balancing them with resolution strategies. These differences indicate that one group of students was more sensitive to complexities of the foreign context and how they fit in, while the other group used narratives to notice problems in the foreign culture. The paper explores how plot is not only a mirror into cultural relations but also scaffolds these relations.

**Format:** Paper presented in a Symposium (240)

# When Merleau-Ponty meets Engeström, integrating phenomenology in the emotional dimension of the Activity literacy (383)

Aurore Dandoy *(University of Paris Dauphine (PSL))*

After a year spent among collaborative spaces and their workers, it becomes obvious that co-worker communities are not just marketing punchlines. If the first argument to rent a desk in a coworking space is about price and shared facilities, quickly appears the importance of the community. Collaborative spaces talk about "tribe", "family" or "third-place community" (Oldenburg, 1989) to describe the extended group of their customers. However, research has mainly focused on business models and on how space and materiality have improved collaboration and innovation (Capdevilla, 2013; Moriset, 2014; Fabbri, 2015; de Vaujany & Vaast, 2016).

This research wants to deepen the understanding of the community in collaborative spaces through the particular role of the community manager. In this objective, I would like to question my theoretical framework at ISCAR in order to answer my actual research question: How embodied phenomenology (Merleau-Ponty, 1945) can improve the emotional dimension of the fourth generation of the Activity Theory (Engeström, 1999) to explain the community feeling in new work configurations?

**Format:** Paper presented in a Working Group Roundtable

# Perezhivanie and teacher professional identity formation in the paired-placement of student teachers (334)

Thi Kim Anh Dang *(Monash University)*

This paper examines the evolution of the professional identities of student teachers (STs) over a 15-week paired-placement in Vietnam. Teacher collaboration in the form of paired-placements has emerged in response to challenges associated with the traditional single placement. The study draws on activity theory, its notion of contradiction, and Vygotsky's concepts of ZPD and perezhivanie to identify the factors driving the intricate learning process. Vygotsky's interrelated concepts of perezhivanie and ZPD are used to explore how emotion and human development could be reciprocally related to one another. Drawing on case-studies of four ST pairs, the study revealed how the STs were aware of, interpreted and emotionally related to paired-placement events all influenced their actions in their environment. Findings show that opportunities for learning were initially manifested in conflicts within the teacher pair, for example, negotiation of their multiple identities, as friends, students and teachers in training. Perezhivanie has proved useful to the present study. First, it helps to explain how the individual STs constructed different meanings of the same planning and teaching event, depending on how they each emotionally related to that event.  Perezhivanie provides the prism through which we could explore the relationship between the STs and their social environment of development, and the identities they were negotiating. Second, it identifies both emotional and cognitive dimensions of teacher development: in research into teacher development, the former is often overlooked. Unpacking the relationship between perezhivanie and teacher professional identity formation has implications to inform teacher education programs.

**Format:** Paper presented in a Paper Session

# DesignPractice (398)

Harry Daniels *(University of Oxford)* & Hau Ming Tse *(University of Oxford)*

This paper reports findings of a study which explored the ways in which design influences the perceptions and practices of the post-occupancy users at five UK secondary schools. An understanding practice differences at these schools extends typical Post Occupancy Evaluations (POEs) which have been criticised for their prioritisation of life-cycle build information (Watson, 2015), and lack of attention to the ways in which the processes of occupation itself may shape the experience of such spaces (Stables, Learoyd-Smith, Daniels, & Tse, 2014). The study involved case study profiling to document a range of key issues discussed by staff and students at each one of these schools. Multiple data sources allowed for triangulation of findings which has highlighted the impact of design and the adaptations made to the building by its occupants. Findings point to the importance of alignment between school design, pedagogical orientation on occupation and the management of built spaces.

**Format:** Paper presented in an Interactive Paper Session

# Play as purposeful activity for learning academic content in the science through technology-enhanced play (STEP) environment (085)

Joshua Danish *(Indiana University)*, Megan Humburg *(Indiana University, Los Angeles)* Christine Lee *(University of California, Los Angeles)*, Maggie Dahn *(University of California)*, Noel Enyedy *(University of California)*, David DeLiema *(University of California, Berkeley)*, Asmalina Saleh *(Indiana University)* & Randy Illum *(University of California, Los Angeles)*

Increased accountability measures initiated in the United States in 2001 by the No Child Left Behind Act pressure teachers to focus on academic skills. As a result, didactic approaches have prevailed as the presence of play in schools has declined (Bassok, Lathan, & Rorem, 2016). Given the constraints teachers face, some have suggested integrating play into curricula (Nicolopoulou, Barbosa de Sa, Ilgaz, & Brockmeyer, 2009) because play is a lifelong activity that spans development (Perone & Gönchü, 2014). In this paper we present a way of integrating play and science content (complex systems of honey bee pollination) through our Science through Technology-Enhanced Play (STEP) project, an Augmented Reality environment using motion-tracking technology to support children in play as a form of modeling and inquiry.

The STEP environment aligns with the concept of a "playworld" (Lindqvist, 1995; Marjanovic-Shane et al., 2011), where teachers and students co-create their learning space using imagination and dialogue. In previous work we argued that students have opportunities to develop an understanding of science by testing ideas through play (DeLiema et al., 2016). Here we examine how teacher roles change as they use play as a tool to mediate, develop, and support learning. As evidenced by quantitative learning gains, we argue the qualitative experience co-constructed by teachers and students supports student learning. We demonstrate ways teachers can accomplish academic learning goals without forfeiting playful learning opportunities by integrating play with science and thereby providing opportunities for students and teachers to co-construct learning pathways through playful inquiry.

**Format:** Paper presented in a Paper Session

# Sociocultural-historical theory and teacher education: Reflection for Inclusive practice

Eliane da Silva *(Federal University of Sao Paulo (UNIFESP, Brazil))*

This research aims to investigate the use of Vygotsky's views found in the studies of Defectology (Vygotsky, 1930/1997), along with a critical collaborative methodological approach that can contribute to teacher education in contexts of inclusive education. Teacher education is an important matter in the context of inclusion (Ferreira, 2014), since, at least in São Paulo, Brazil, where this research is being carried out, this area is treated in pre-service training situation or even in-service, and in neither of them has it been achieving the necessary goals so as to guarantee that inclusion is taking place. Knowledge about the teaching of pupils with special educational needs allows the teacher to reflect on and upon their teaching practice, building upon it by means of theoretical and methodological information. In turn, this can enable the teacher to review their pedagogical practices so as to take into account the diversity of their students (Pietro, 2006). As part of this investigation, a teacher education course is conducted with teachers from the public school sector of a city near São Paulo, aiming at discussing the development of students with disabilities in the school context. This course is based on the sociocultural-historical theory – which also composes the theoretical scope of the investigation. Some of the contributions from the sociocultural-historical theory (Vygotsky, 1924-1034) to education include the Defectology studies – and among them, the concepts of compensation and higher mental functions, which are very important for this study. In his work on Defectology, Vygotsky concluded, among other things, that the child whose development is complicated by a defect is not simply less developed than his peers said normal, but develops differently (Vygotsky, 1987/1924). Through the study of Defectology, our investigation aims at finding a positive task system which can allow the development of the potential of the person with disabilities (more specifically, with mental disabilities). It is our belief that the systematic study of the Defectology will enable the participants of this teacher education course to reflect about and discuss methodological approaches in order to understand the development of higher mental functions and the disorders of these functions (Vygotsky, 1991). To implement this research, we use the critical research of collaboration as a methodological choice (Magalhães, 2003). This methodology aims at building a collaborative space that fosters critical thinking (Smyth, 1992) of teachers on their own pedagogical practices, addressing the expectations, the impacts and the thoughts experienced by teachers (Magalhães and Fidalgo, 2010). In addition, Magalhães and Fidalgo (2007, p. 124) point to the "central role of collaboration in the process of co-production of new directions as to theories, functions and actions that occur in the area of conflict, that Vygotsky calls zpd." Building confidence and confronting ideas thus go together to challenge crystallized meanings and others about how to act in teacher education and research contexts. "So, these conflicts inevitably bring out cognitive-affective differences that cannot be separated, and imply that participants take intellectual and emotional risks so that joint development of meanings are negotiated" (ibid). In this sense, as Magalhães (2010) points out, it is the language of argument that creates the possibility for collaborative relations in the production of shared meanings. The proposed study demonstrates a promising path to understanding and analyzing issues related to the process of inclusive education in teacher education based on the study of the sociocultural-historical theory.

**Format:** Paper presented in a Symposium (307)

# Proposing and analyzing activities to approach perfumes in a TLS in Chemistry classes (272)

Maria Eduarda de Brito Cruz *(Universidade Federal Rural de Pernambuco)*, Edenia Amaral *(Universidade Federal Rural de Pernambuco)*, José Euzébio Simões Neto *(Universidade Federal Rural de Pernambuco)* & Verônica Tavares Santos Batinga *(Universidade Federal Rural de Pernambuco)*

This work aimed to propose and to analyze the structure in a Teaching Learning Sequence (TLS) on perfumes, taking into account engagement, exploration, explanation, elaboration and evaluation that such activities can promote in Chemistry classroom. We developed a TLS on perfumes, drawn from Méheut ideas (2005), trying to promote teaching and learning in 5 steps according to the phases of the 5E method (Patro, 2008). The results obtained from the following elaboration and analysis of TLS indicate that: it favored an articulated approach for chemical content to the theme perfumes; provides a contextualized approach to different types of content, concepts and scientific phenomena in schools. However, it requires teachers to appropriate integrated approach for chemical and pedagogical knowledge, including issues with social relevance, which requires a degree of complexity to work with the design of didactical proposals for science teaching and learning.

**Format:** Poster presented in a Structured Poster Session

# Implications of intersubjective and transformative praxis for field work (421)

Carlos Roberto de Castro e Silva *(Universidade Federal de São Paulo)*, Danilo Anhas *(Universidade Federal de São Paulo)* & Karina Rosa *(Universidade Federal de São Paulo)*

Qualitative research has contributed to the health sector, specifically to public health because it brings new analysis of parameters related to the strengthening of the principles of the Unified Health System (SUS), emphasizing interdisciplinarity, the enhancement of inter-subjectivity and citizenship. The objective of this work is to bring some of the experiences of researchers in an area in a situation of social exclusion, valuing the intersubjective implications and ethical-political aspects. The origin of Vila dos Pescadores, in Baixada Santista-São Paulo, is related to the history of occupation of mangrove areas in Santos, and part of the transformations of urban space, where it reveals a typical exclusion framework that has been imposed socially and politically over the past decades. Data collection was performed through two instruments: participant observation and, semi-structured interviews. The method of analysis of the three studies used Depth Hermeneutics (DH) as proposed by Thompson (2011), as it enables an understanding of the cultural and symbolic phenomena contextualized socio-historically.So we consider that the process of joint learning, between the researchers and subjects involved in research, led to an ongoing reflection on the roles and limits that occupied such research, to the strengthening of close ties between the actors involved, and to the encouragement of new forms of organization in their social life. In addition, this approach could contribute to denaturalization processes of exclusion and trigger a transformative praxis. Furthermore, the link between research, teaching and community-based programs has enabled new discussion parameters on the social role of the university.

**Format:** Paper presented in a Paper Session

# Implications of intersubjective and transformative praxis for field work (216)

Chair: Mariette de Haan *(Utrecht University)*

Discussant: Ruth Paradise *(Centro de Investigación y de Estudios Avanzadas)*

Mariette de Haan *(Utrecht University)*, Micha de Winter *(Utrecht University)*, Spark van Beurden *(Utrecht University)*, Ruben van Esch *(Utrecht University)* & Ruth Paradise *(Centro de Investigación y de Estudios Avanzadas)*

This symposium brings together different research projects in which the learning and development of parents are addressed in situations of intense social and cultural change, either through (transnational) migration or through the falling apart of local social structures in rural areas. Starting out from socio-cultural notions of learning, in particular, those that have conceptualized learning as related to the qualities, forms and extent of community participation of individual learners, the symposium has as its goal to review these notions to include understanding learning in communities that are under high pressure due to cultural and social change.

The papers bring together urban migration settings in Europe, the Netherlands and rural areas in West Africa, Kenya. The confrontation with conflicting belief systems, and diverging practices of meaning-making, as well as contexts of ethnic tensions, play an important role in the learning and development of these parents. From a practice-based perspective, the studies seek to contribute to the development and support of self-organized networking and communal learning, bottom-up training programs in the domain of parenting, as well as to an emancipatory agenda for non-mainstream groups of parents who face the challenge to re-invent their parenting against the backdrop of normative middle-class parenting practices which are often imposed on them by the mainstream services and training in this area.

**Format:** Symposium

# Developing teaching quality in higher education through peer teacher support groups (067)

Thomas de Lange *(Department of Education, Univeristy of Oslo)* & Anne Line Wittek *(University of Oslo)*

The paper analyses how university teachers observe and give peer-based feedback on teaching in so-called Peer Teacher Support Groups (PTSGs). These groups are composed of five university teachers from different disciplines, brought together as part of a compulsory professional development program for academic staff. The aim of the study is to conduct an in-depth analysis of how the discussions in the PTGS influence on the participants' reflections about student learning and teaching practices in general as well as in their own disciplines. Theoretically, the paper draws on Cultural Historical Activity Theory, more specifically on the conceptions of boundary object and boundary zones (Akkerman & Bakker, 2011; Engeström & Sannino, 2010; Jarheie & Ludvigsen, 2007; Tsui & Law, 2007). Empirically the study is based on a combination of video-observations, interviews and document analysis. These data were collected longitudinally over a period of 6 months. The analysis of the PTSG data revealed a collaborative space in which the participants questioned, challenged, and partially transformed their teaching. The data also revealed how cross-disciplinary notions on teaching and student learning were applied. The analysis identifies both the pre-defined structure in the PTGS and the participant's instructional memos as significant boundary objects. A general finding is that these artifacts opened a discursive space bringing together diverging disciplinary sites, which were made relevant to the whole group.

**Format:** Paper presented in a Paper Session

# The microgenesis of learning ecologies: Tsotsil Mayan children as agents of their own learning processes through initiative and cooperation

Lourdes de León *(Centro de Investigaciones y Estudios Superiores en Antropologia)*

This presentation documents the microgenesis of Mayan children's initiatives in creating learning ecologies as they engage in culturally relevant endeavors of family and community life. I approach learning ecologies as a socioecological system where participants mutually influence one another through verbal and nonverbal actions, as well as through other forms of semiotic communication. To this end, I carry out a fine-grained ethnographic and multimodal analysis to examine children's agentive roles in learning through "cooperative actions" and "hands-on" experience the skills of competent members of their community. To this end, I examine three distinct Learning Ecologies where children play different roles according to their: (i) competence in the task, (ii) requested guidance, (iii) monitoring, and (iv) guidance from a competent member of the family. I argue that the analysis of initiative in LOPI is enriched and empowered by taking a fine look at talk, gesture, participants' sociospatial organization, objects, tools, and other culturally relevant materials brought together to build action in situated learning activities. The study is rooted in three decades of anthropological and linguistic research among the Tsotsil Mayans of Zinacantán, Chiapas, México.

**Format:** Poster in a Structured Poster Session (077)

# Knowledge and practices of health and community professionals working in a low socio-economic community - in what ways do they shift through an intervention partnership? (218)

Letitia Del Fabbro *(Griffith University)*, Parlo Singh *(Griffith Institute for Educational Research (Brisbane, Australia))* &
Elizabeth Kendall *(Menzies Health Institute Queensland (Brisbane, Australia))*

Extra-organizational communities of practice and networks provide opportunities for participants from traditionally 'siloed' practice domains to develop so-called 'joined-up solutions', they also hold potential for knowledge exchange and translation of evidence and policy into practice.

My Ph.D. research is focused on a learning community intervention that brought together 19 health and community professionals, their organizations and a university partner in a region of South-East Queensland (Australia) associated with intergenerational socio-economic and socio-educational disadvantage. The network met bi-monthly, over an 18-month period, with broad aims related to promoting health in the region. Participants were also involved in a health promotion short course and interviews at the end of the intervention.

I am investigating the nature of learning between these inter-disciplinary professionals from diverse practice backgrounds. I use a methodological approach, drawn from cultural-historical activity theory and the sociology of education to conceptualize partnership research as the intervention. A critical ethnography approach was used for data collection.

From my early analyses, I have identified vignettes of knowledge exchange, and learning of relevance to multi-disciplinary practice and extra-organizational collaboration. By the time I attend the ISCAR Ph.D. Students' Day, I plan to have commenced the final phases of analysis. In this Dialogue Paper, I seek to discuss my data analysis and my experience of research informed by a cultural-historical paradigm.

**Format:** Paper presentation on PhD Day

# Experiential trajectory change in the approach angle of family-school collaboration in the context of learning assessment practices (045)

Rollande Deslandes *(Université du Québec à Trois-Rivières)* & Sylvie Barma *(Université Laval)*

In this paper, we propose to revisit the data of the four studies that were realized within our research program on Family-School Collaboration in the Context of Learning Assessment Practices (Deslandes, 2007-2011). The program aimed at: 1) identifying parents' needs in relation to learning assessments and 2) piloting tools or workshops for parents. Through the description of the studies, we ask ourselves as potential transformative agents and in light of our current theoretical and methodological lenses, how would we make sense of the findings and of the actions that were put forward? The first study using quantitative data aimed at identifying parents' views of their needs regarding learning assessments. The second one employed a qualitative approach to obtain educators' perceptions of parents' needs. A third one developed information leaflets for parents, and a fourth one used the experiential learning approach to conduct workshops with parents. Drawing on Engeström's Cultural-Historical Activity Theory (CHAT) (2001) and the Change Laboratory method anchored in the Expansive Learning Theory (Engeström, 2015), we engage in an experiential trajectory change as researchers to approach and analyze the data. We indulge ourselves with wearing new lenses and engage in experimenting the early phases of the expansive learning circle through questioning, criticising our interpretations and the activities that followed, analyzing and envisioning new activities. We question the added value of the theory-model combination in deepening our understanding of f-s-c in the context of learning assessment. We also reflect on the development of our own agency as researchers.

**Format:** Paper presented in a Working Group Roundtable

# Parents' pedagogical roles in children's imaginative play: A cultural historical analysis across diverse cultural contexts

Anamika Devi *(Monash University)*

According to Vygotsky (1998), the child's individual developmental trajectory depends on social contexts that the child actively participates in and interacts with. Family is the first social institution where the child has a strong social relation with others from birth. A large number of studies indicate that parents make a significant contribution to children's conceptual learning through play, whereas very few studies are informed by the parental perspectives and their role in children's imaginative play in terms of diverse cultural practices. This study investigates how parents' diverse cultural practices influence their pedagogical role in imaginative play to support preschoolers' conceptual learning. Four focus children (4-5 years old) of middle-class Indian families participated in this case study. A total 81 hours of data were collected through video and semi-structured interviewing over a period of 8 weeks. Vygotsky's notion of the "social situation of development" (1998) and Kravtsov and Kravtsova's (2010) conception of "dual subjectivity" have been used as analytical tools. The finding from the data sets shows that parents pedagogical roles in children's imaginative play and their different beliefs about imaginative play are influenced by families' diverse cultural practices, which provide varied social situations of developmental trajectory for the children. The paper argues that to understand children's learning and development in diverse settings, one needs to consider parents' pedagogical practices in family cultural contexts. The finding of this paper makes a contribution to early childhood scholarship and practice, showing a new dimension of cultural family practices that associated with parental support of children's learning and development through imaginative play.

**Format:** Paper presented in a Symposium (099)

# Collective stimulation of emotional consciousness: the role of participation in a career counseling group program

Patricia Dionne *(Université de Sherbrooke)* & Isabelle Rioux *(Université de Sherbrooke)*

In a career counseling group, the meaning of emotions is often an object of learning. Facing long-term unemployment, some participants may interpret this social situation as a personal responsibility (Blustein, 2006). This can cause sadness, anger, and shame that can hinder actions toward social and professional integration (SPI) (Dionne, 2015). The present analysis is based on a career counseling intervention which took place in disadvantaged socioeconomic communities in Québec. The collective activity and the discursive manifestation of the subject's learning and, eventually, development have been part of a longitudinal analysis using a framework matrix (Spencer, Ritchie, O'Connor, Morrell & Ormston, 2014). An emphasis is also placed on the discursive manifestations and on the transmission by the counselors of systematic instruments that participants learned. Those instruments serve them to attribute meaning to and to manage emotions especially in relation to work and the educational spheres. The results show that participation in the career counseling group activity, including resolving contradictions, creates many occasions for adults to gain perspective of their *perzhivaniya[i]*. The systematisation of action to master emotions progressively and give them meaning helps adults getting a progressive freedom from the domination of the immediate affectivity of the situation (Vygotsky, 1930) as they become conscious of the emotions that affect their thinking and actions. The systematic instruments, transmitted and learned in the collective activity, contribute—considering the motivating sphere of consciousness—to more control and to a greater consciousness of the relation to self, to others and to the world, which promotes actions towards their social and professional integration.

[i] For uses on the Russian term *perezhivanie* in English literature, see Blunden, 2016

**Format:** Paper presented in a Symposium (118)

# The motivating sphere of consciousness: Vygotskian conceptualisations of the individual subject in contemporary CHAT research (114)

Patricia Dionne *(Université de Sherbrooke)*, Alfredo Jornet *(University of Oslo)*, Anna Stetsenko *(The Graduate Center, City University of New York (CUNY) (New York, NY, United States)*, Frédéric Saussez *(Université de Sherbrooke)* & Beth Ferholt *(Brooklyn College)*

The subjectivity of individuals who contribute to and develop through collective activity is an important issue to consider in cultural-historical activity theory (Engeström, 2009). In considering the question of the individual subject in cultural-historical theory —this riddle of the self (Mikhailov, 1980) that continues to challenge CHAT researchers— the notion of consciousness is central. In this roundtable, which brings together leading and emerging voices in contemporary CHAT literature, our aim is to discuss the relations between the individual and the social planes of activity taking as a point of departure Vygotsky's seminal work on the primacy of the social in the development of human consciousness. Instead of a divide between an ideal individual on the one hand, and a material social world on the other, Vygotsky sees in the social sphere of life the genetical origins of individual consciousness. In Thinking and Speech, he studies the relation between, verbal thinking, word and the motivating sphere of consciousness (Vygotsky, 1987). It is in this sphere, which "includes our inclinations and needs, our interests and impulses, and our affect and emotion" that "thought has its origins" (p. 282). This motivating sphere of consciousness affects the collective and subjective planes of activity through a volition and affective investment. Subjectivity manifests itself in movement when subjects act as social subjects in collaborative processes (Stetsenko, 2013). In this roundtable, we will take as the basis for our theoretical discussion the late Vygotsky's ideas of considering the motivating sphere of consciousness as a central problem in CHAT investigations.

**Format:** Paper presented in a Working Group Roundtable

# The motivating sphere of consciousness in/as praxis: empirical studies research (118)

Chair : Patricia Dionne *(Université de Sherbrooke)*

Patricia Dionne *(Université de Sherbrooke)*, Alfredo Jornet *(University of Oslo)*, Sylvie Barma *(Université Laval)*, Anne Lessard *(Université de Sherbrooke)*, Isabelle Rioux *(Université de Sherbrooke)* & Chantal Poulin *(Université de Sherbrooke)*

The aim to overcome the Cartesian dualism between subject and object, mind and body, and most characteristically, individual and society when theorizing about human activity is fundamental to the cultural-historical theory research. Yet, the challenge of theoretically and empirically accounting for the individual subject that transforms and is transformed in societal activity is one of the most often discussed and critiqued in the literature (Engeström, 2009). A follow-up to the roundtable titled The motivating sphere of consciousness: Vygotskian conceptualizations of the individual subject in contemporary CHAT research, the present symposium aims to illustrate ways in which aspects often attributed to the individual person such as motivation and emotions are examined within a cultural-historical framework. Grounded on empirical data, four contributions will exhibit and discuss ways in which the changing subject is accounted for while participating in changing education and work praxis. The four studies represent four different ways in which current research examines such crucial aspects or moments of activity across a range of professional and educational settings.

**Format:** Symposium

# Developing historical reasoning in primary education classrooms (161)

Marjolein Dobber *(Vrije Universiteit Amsterdam)*, Inge Haarsma *(De Activiteit)*, Eline Geus *(Vrije Universiteit Amsterdam)* & Bert van Oers *(Vrije Universiteit Amsterdam)*

Historical reasoning helps students understand the dynamics between different time periods. A group of teachers, teacher trainers and researchers collaborate on developing a toolkit that helps teachers to focus on developing historical reasoning of their students, starting out from a CHAT perspective. During the school year 2016-2017, 11 teachers of students aged 9-12 took part in a research project to design history education. They were supported in this effort by teacher trainers and researchers who visited them in their classrooms regularly and discussed their teaching during meetings. The whole research group was aimed at improving a toolkit for historical reasoning so that other teachers can use this as well. Important subjects in the meetings were the use of exploratory talk in students' historical research, connecting the past, present and future, and the use of 'big ideas' (like power, communication and inventions). Video observations of lessons, interviews with children and portfolios of both teachers and teacher trainers provided insight of both the development of historical reasoning of children, as well as the capacities of teachers to design lessons. From the preliminary results, we can see that teachers find it interesting to search for historical questions into different topics, together with children. At the same time, teachers feel it is challenging to engage in conversations that result in the historical reasoning of students. They needed support in asking the right types of questions and guiding conversations in such a way that historical reasoning is evoked in children.

**Format:** Paper presented in a Paper Session

# Extending the teacher educator role: developing new tools for working with school mentors (015)

Alaster Douglas *(University of Roehampton)*

This project followed up eight key respondents from a year-long ethnographic study undertaken with teacher educators in 2006 (Douglas, 2014). The initial research explored the experiences of teacher educators when working with school mentors. The current study, through in-depth interviews, explores reflections from the past respondents to developments which have taken place in teacher education and in their own career profiles over the 9 years since the first study. The analysis in this study uses a cultural-historical and activity theory lens (Engeström, 2008). This focuses attention on learning as a social phenomenon, a process that takes place within social systems that have evolved culturally and historically and that offer participants in those systems certain tools with which to work on a shared object. The findings focus on how teacher educators support their role in higher education which for many in England is moving into schools (White 2014, O'Dwyer, & Atli 2015) whereas other nations have extended the process of placing teacher education under the auspices of universities. The findings focus on new tools appropriated by teacher educators which have developed in response to the changing nature of their work. Tensions arose from changing policy contexts for teacher education in England with new tools used to negotiate the object of teacher education activity such as an extended university-led forum for developing the 'collective' of school mentors, collaborative research projects, shared writing and publication activities and the development of related Continuing Professional Development courses.

**Format:** Paper presented in a Paper Session

# The Vygotskyan concept of mediating activity and the educational production of needs (086)

Elaine Duarte *(Universidade Estadual de Campinas (UNICAMP))* & Newton Duarte *(Universidade Estadual Paulista (UNESP))*

Based on Hegel and Marx, Vygotsky considered the use of tools and signs as mediating activities. A typical mediating activity is the one in which human beings transform objects or phenomena into means of action. In order to do that human beings must work with the objective characteristics of the objects in relation to the activity goals. The transformation of something into a mediation inside the activity requires the development of the mental capacity to work with indirect relations between the human needs which generates the activity and each specific component of the entire process that leads to the achievement of a good final result. In this sense, activity puts in movement, at the same time, the external reality and the psychological processes. However, we must consider that human activity is collective in its most basic forms and its success depends on the development of efficient processes of communication as much as on the use of powerful tools. The use of signs and the development of systems of signs generate the complexification of inter-psychical and intra-psychical functions. On the one hand it is true that an activity is always motivated by needs but, on the other hand, the use and the transformation of systems of tools and signs generates historically new kinds of human needs beyond the level of subsistence. From the dialectical perspective, this is a crucial aspect to be considered by educational projects which intend to promote the expansion of the horizons of students' life and society views.

**Format:** Poster

# Education can not be neutral: contributions of Vygotsky's psychology to a critical analysis of the ideology of "schools free of ideologies"

Newton Duarte *(Universidade Estadual Paulista (UNESP))*

In the last few years, the ideological Brazilian landscape has become intensively polarized. A conservative wave has taken many forms: from the coup against the president to the proposals of laws against worker's rights. There is a revival of a motto used during the dictatorship: "Brazil: love it or leave it". In this context "to love Brazil" is understood as to accept social inequalities as naturals and to cultivate entrepreneurship as the solution to poverty and unemployment. The school curricula and the teachers have been considered suspicious of dissemination of leftist ideology. Some politicians are trying to approve laws prohibiting any kind of discourses inside schools that reveal ideological choices. They postulate that the teaching of school knowledge has to be ideologically and politically neutral. In this paper will be presented some contributions of Vygotsky's psychology to the critical analyses of that ideological perspective of a school without any ideology.

**Format:** Paper presented in a Symposium (093)

# Working relationally in and across practices: Refining concepts in the field of practice (029)

Chair: Anne Edwards *(University of Oxford (Emerita))*

Anne Edwards *(University of Oxford (Emerita))*, Nick Hopwood *(University of Technology Sydney)*, Annalisa Sannino *(University of Helsinki)*, Yrjö Engeström *(University of Helsinki)*, Prabhat Rai *(Ambedkar University)*, Marilyn Fleer *(Monash University)*, Iris Duhn *(Monas University)*, Hanna Toiviainen *(University of Tampere)* & Mariane Hedegaard *(Copenhagen University)*

Cultural-historical approaches to learning and work are usually premised in Leontiev's precept that "society produces the activity of the individuals forming it". Yet, this statement also points to the challenges presented by work across institutional boundaries in sites of intersecting practices, while tackling problems that require multiple forms of expertise. Conceptual struggles with these challenges have produced three concepts: relational expertise, common knowledge and relational agency. In brief, relational expertise involves revealing one's own motives and recognising what matters for potential collaborators from other practices; common knowledge consists of these motives and is employed as a second stimulus when working with others on complex problems; and relational agency consists of the acts of collaboration when interpretations of problems and collaborative responses to them are mediated by common knowledge. The eight short presentations in the symposium will each take one or two of the key concepts to discuss how they were used in studies in different settings to address very different questions. In the process, they will reveal how, in sound Vygotskian terms, the concepts were refined in use in the field. All the presenters are contributors of Working relationally in and across practices, recently published by Cambridge University Press.

**Format:** Symposium

# The concept of drama: A Politzerian and Vygotskian perspective

Mohamed Elhammoumi *(Department of Psychology - United Arab Emirates University - UAE)*

This paper presents a critical examination of the Marxist underpinnings of Georges Politzer and Lev Vygotsky's materialist psychology with particular reference to the concept of drama. Politzer and Vygotsky's Concrete Human Psychology is the study of "le drame vécu" (drama of human's everyday life - doing and acting). It finds fruition in drama of everyday human life rather than through the abstract gradual increase of academic knowledge. We need a psychology of the concrete, argue Politzer and Vygotsky. Human's drama means the study of concrete human existence both in singular individual and collective social totality. Both Politzer and Vygotsky continued to explore the possibility of a new psychology constructed around the dramatic life (la vie dramatique). Concrete is defined as the singular individual, conceptualized as a conscious actor within social reality. Vygotsky elaborated his concrete psychology on Politzer's concept of drama. Drama is the object of psychology and "psychology must be developed in the concepts of drama, not in the concepts of processes" (1989, p. 71). He also stated that "The dynamic of personality is drama (p. 67). This project advanced by Politzer and Vygotsky remained "an immature germ" (Yaroshevsky, 1989, p. 125). Vygotsky's concrete psychology means the psychology as a drama which Politzer put forward. Politzer and Vygotsky's ideas on the concept of drama will be developed further.

**Format:** Paper presented in a Symposium (127)

# The legacy of Vygotsky's cultural historical psychology in a conservative time (093)

Chair: Mohamed Elhammoumi *(Department of Psychology - United Arab Emirates University - UAE)*

Mohamed Elhammoumi *(Department of Psychology - United Arab Emirates University - UAE)*, Newton Duarte *(Universidade Estadual Paulista (UNESP))* & Marilene Proença *(University of São Paulo)*

This symposium assumes the on-going relevance of Vygotsky's contributions to education and aims to continue the development of the legacy of Vygotsky Marxist traditions in and for education.

In his early educational and pedagogical writings, Vygotsky remarked that the most difficult problem to be faced in creating a new society is the molding of a new human individual for a new society. That is the transformation of the human personality, intellect and behavior which are presenting themselves as the most challenging practical problems. Education is the process directed toward forming a fully developed human individual, as well as ensuring a certain level of development of individual's cognitive needs and capacities and his/her ability to perform some kind of practical activity, oriented to social goals. It is education, which should play the central role in the transformation of human individuals, that "can lead to the formation of a new type of man" (Vygotsky, 1994, p. 182).

**Format:** Symposium

# Vygotsky's educational ideas in the light of "the Socialist alteration of man"

Mohamed Elhammoumi *(Department of Psychology - United Arab Emirates University - UAE)*

Those of us who have followed the course of Vygotsky's cultural-historical psychology, its revivals, its controversies, its multiple readings, and its struggles toward a meaningful Marxist interpretation can appreciate its impressive achievements in education and pedagogics. The goal of education, according to Vygotsky is to create a new type of human individuals, who are creative, inventive and discoverers and capable of doing new things, not simply of repeating what other generations have achieved. In "The Socialist alteration of man," Vygotsky argued that the goal of education is the creation of a mankind that is qualitatively different from its predecessor. This paper will examine the educational ideas formulated by Vygotsky in his landmark paper "The socialist alteration of man".

**Format:** Paper presented in a Symposium (093)

# Intervention study to enhance school leaders' competence in engaging in learning conversations (023)

Anne Berit Emstad *(Norwegian University of Science and Technology (NTNU))*

The purpose of the study that I based this article on was to examine whether school leaders improved skills in learning conversation enhanced teachers' ability to inquire into their teaching practice. Vygotsky (1978) argues that the source of individual thinking begins on an interpsychological plane, in social interaction between people. Higher mental processes are constructed through joint activities. The intervention study started with the school leader. He was trained in skills about how to engage "open to learning conversations". Data consist of transcripts of conversations between a teacher having a class struggling in math, and the leader during 2014- 2016. Learning is a social process where people interact and negotiate to create understanding or solve a problem and where all participants form the final product (Vygotsky, 1978). The school leader was a skilled math teacher, a "competent other", but the main focus of the research was on the school leaders' skills in participating in a learning conversation and scaffolding inquiry. The study proved successful in the case of teacher's development in teaching, but the school leaders still lack the ability to be open minded, which results in confirmation biases that hinder genuine inquiry. Findings indicate that the conversation is affecting collegial collaboration in school. I argue that, as the teachers, school leaders' daily experiences in their practice shape their understandings, and their understandings shape their experiences and that learning is influenced by and also influence the school culture and the community and society in which the school is situated.

**Format:** Paper presented in a Working Group Roundtable

# Our Shared Common Lands: Playing maths in England and Mexico (293)

Mabel Encinas *(University of Suffolk)* & Dora Sevilla Santo *(Autonomous University of Yucatán)*

This paper presents the results of a research project between the University of Suffolk (UoS, UK) and the Autonomous University of Yucatán (UADY, Mexico), supported by a British Academy with a grant from March 2016 to February 2017. The aim of the project was to pilot an intervention instrument, a board game, designed by the UK lead-researcher to support 4 and 5 years old children's learning of mathematics, as well as the development of dispositions related to children's social and emotional development. The pilot was run both within a reception class in Ipswich (England), and in two pre-schools in Mérida (México). The board game comprises tasks that support the development of understanding, skills and dispositions in relation to number sense, according to both the Early Years Foundation Stage in England and the Mexican Plan of Studies 2011 for pre-school in the area of mathematics. Additionally, the game's tasks support children's development of values of social justice, collaboration and sustainability. An audio recording was undertaken while participants (children, parents and facilitators) played. Additionally, informal interviews and focus groups were undertaken with participants after playing. The data were analysed through thematic analysis to determine 'what worked' and 'what did not work' in the use of the game, in terms of clarity of the game instructions, mathematical understanding by parents and by children, emotions associated with the activity and collaboration and care while working together.

**Format:** Paper presented in a Working Group Roundtable

# Expansive learning in social movements

Yrjö Engeström *(University of Helsinki)*

Learning in social movements has been largely addressed as formation of political awareness and commitment to social justice through civic engagement (Choudry, 20125; Walter, 2007; Welton, 1993). This literature tends to rely on case descriptions of specific social movements. Theoretically ambitious studies of learning in social movements are rare. Cultural-historical activity theory and the theory of expansive learning (Engeström, 2015) offer a potential framework for such research.

The very idea of social movements is transformation and generation of qualitatively new forms of practice and culture. Expansive learning may be characterized as "learning what is not yet there" (Engeström, 2016), that is, as collective construction and appropriation of new patterns of activity that resolve historically accumulated inner contradictions in the existing practice. Thus, expansive learning is an inherent potential of social movements. One might say that all expansive learning processes have characteristics of a social movement - but not all social movements accomplish expansive learning. Expansive learning is a demanding longitudinal process that consists of specific learning actions and follows the general pattern of ascending from the abstract to the concrete (Engeström & Sannino, 2010).

I will analyze expansive learning processes in four social movements, namely the New York City Community Land Initiative (NYCCLI), the Abahlali baseMjondolo in the shack communities of Durban, the Herttoniemi Food Cooperative in Helsinki, and La PAH in Barcelona. Each case affords a specific scope and scale for the analysis of expansive learning. In NYCCLI, I will analyze the evolution of the entire movement. In Abahlali baseMjondolo I analyze the learning process of a community of shack dwellers. In the Herttoniemi Food Cooperative I analyze expansive learning in the board of the cooperative. And in La PAH, I analyze the cycles of expansive learning of individual members engaged in the movement. This range of analytical scales offers us a unique possibility to examine the methodological potentials and pitfalls of multi-level analysis of expansive learning in social movements.

**Format:** Keynote speech

# Fourth generation activity theory is about alternatives to capitalism

Yrjö Engeström *(University of Helsinki)* & Annalisa Sannino *(University of Helsinki)*

The third paper – "Fourth generation activity theory is about alternatives to capitalism" – from Yrjö Engeström and Annalisa Sannino start from a very different perspective. Claiming that the contradictions of capitalism threaten the very possibility of life on our planet, Engeström and Sannino argue firstly, the new societal challenge is to re-embed the economy (Adler, 2015) into democratically controlled civil society. Secondly, to identify where such developments are occurring and how they might be 'expanded' the new unit of analysis is needed that focuses on materially variations of an existing activity as they are emerging or functioning by virtue of initiatives and efforts generated by social movements, cooperatives, community-based enterprises and other forms of organizing alternatives to capitalism. Engeström and Sannino propose the way to do so is to include in existing third generation unit of analysis a key component envisioned in a diagram in Learning by Expanding (Engeström, 2015, p. 71), namely the "culturally more advanced central activity." This development is depicted in the diagram below (Figure 1.).

**Format:** Paper presented in a Symposium (219)

# Setting an object of knowledge in motion through Davydov's learning activity

Inger Eriksson *(Stockholm University)* & Helena Eriksson *(Stockholm University)*

In this study, we discuss learning activity as an educational tool to enhance the goal of setting an object of knowledge in motion and thus developing students' theoretical thinking. Radford has argued that In order for an object of knowledge to become an object of thought and consciousness, it has to be set in motion. It has to acquire cultural determinations; that is, it has to acquire content and connections in process of contrast with other things, thereby becoming more and more concrete. And the only manner by which concepts can acquire cultural determinations is through specific activities (Radford, 2015 p. 10-11). We are particularly interested in presenting some results about the motion of objects from a study based on the so-called Elkonin-Davydov mathematical program and learning activity. The aim of the study was to make students experience rational numbers as numbers through measuring lengths. In the study, two groups of teachers tried to find ways to explore rational numbers in five groups of Grade 4 students, aged 8 to 10 years old, in a Swedish compulsory school. As the initial step, a problematic situation was introduced to the students. The situation was designed to be transformed by the students into a learning activity (Davydov, 2008; Zuckerman, 2007). They were given a length (e.g., a black Cuisenaire rod) and a smaller length to use as units of measure (e.g., a red Cuisenaire rod), but making the black rod have an equal length with red rods was not possible. This problematic situation can be described as a double stimulation in which known methods and tools are experienced by the students as insufficient (i.e., they could not choose other rods). To overcome the problem built into the situation, the students need to find a new method or model (Sannino, 2014; Vygotsky, 1987). This type of need is central to Davydov's model and is seen as a source of students' engagement in a problem-solving work. In a situation like this the students may ask themselves questions such as: What problem do we need to solve? What tools do we have access to? What problem is related to the tools and models we know? What type of model can we design that will help us solve the problem? How can we explore and test different models? How efficient is the new model? If the students engage in a type of work like this, according to Davydov, a learning activity is established. In what ways can this also be understood as "a specific activity," in which an object of knowledge is set in motion? In this specific activity, the students and the teacher discussed the object of knowledge by developing a model for rational numbers, inspired by the work of Davydov and TSvetkovich (1991). This model evolved from a discussion of the fraction part in a mixed number as "a little bit more" (represented as B = W + "a little bit more") to a general model represented as B = W + p/w (B for a black Cuisenaire rod, W for the whole part, p for part, and w for the white Cuisenaire rod in the fraction part). From this general model the students wanted the model to be changed the specific measurement: B = W red + p/w red. The model started in the general and became more and more concrete. In this study, we argue that when the students realize that "a little bit more" of the red rods is needed, the development of a possible model emerged (H. Eriksson, 2015). The model of rational numbers was developed through the collaboration between students and the teacher. The results show that the students, together with their teacher, discussed 1) the whole in relation to the parts, 2) the units in relation to the object to be measured, 3) whole numbers in relation to fractions, 4) the numerator in relation to the denominator, 5) the smaller unit in relation to the units, 6) entities in relation to units, 7) rational numbers in relation to x and x+1, and 8) the indefinite integers in relation to the indefinite rational numbers.

**Format:** Paper presented in a Symposium (078)

# The expansive learning cycle transformed into a tool for educational design (249)

Inger Eriksson *(Stockholm University)*, Diana Berthén *(Stockholm University)*, Torgunn Finnset *(Stockholm University)*, Anders Jansson *(Stockholm University)* & Viveca Lindberg *(University of Gothenburg)*

The aim of this presentation is to give an empirical example of what can be an indicator of transformative agency in a Change Laboratory (CL). The idea of a CL is to empower the participants to enable transformative agency and changes in their activity. The researchers are supposed to both provoke and sustain the work of the participants. We argue that the issue of agency – both relational and transformative – is of great importance in a CL but that sustaining participants' agency is a demanding task. Furthermore, participants' agency must be analysed empirically.
A CL-project at the Swedish Manilla-school (grades 1-10), a special school for students with impaired hearing aimed at qualifying math-teaching. The team consisted of teachers in all grades and a group of researchers. The researchers produced mirror data. The teachers prepared themselves by reading the epistemology underpinning the national curriculum. At the end of the project, teachers created a new way of using the expansive learning cycle and the process of change laboratory, fit for their purposes, for designing, developing and assessing their math-teaching. This we see as an indicator of a transformative agency.

**Format:** Paper presented in an Interactive Paper Session

# Learning activity in early mathematical education (431)

Helena Eriksson *(Stockholm University)*

During the PhD-day I would be grateful to discuss different ways of analyzing how young students are dealing with a specific object, specific mathematical subject content, from a CHT perspective. My data consists of videotapes from lessons designed as Learning Activity. My question for the PhD-day therefore is: How to answer questions of what is possible to explore of young students dealing with specific subject content in education using tools in the perspective of Learning Activity for analyses? One research question for my theses is; "How do children deal with specific mathematical content in education designed to be a learning activity"? To produce my data, I have worked together with teachers using Learning Activity, actually, using the Elkonin and Davydov (ED) mathematical program as a tool for designing and analyzing lessons. Now, I want to explore what can be possible for the young students to discern when dealing with the content in these lessons. What content do the students actually deal with? What is possible for them to discern in relation to the object of the lesson? Therefore, my question for this Ph.D. day is how to do analyses of the activity in a CHAT perspective?

**Format:** Paper presentation on PhD Day

# Old age as a cultural and historical phenomenon and its transformation in modern times design (395)

Marina Ermolaeva *(Moscow Psychological-social University)*

Old age, like any other age, is a cultural and historical phenomenon. In the culture and mass consciousness, the viewpoint about elderly and old age as the period of involution is still prevalent. At the same time, there has been a change in attitude toward this age. Many authors emphasize the perspective of using the potential of older people in society, the value of continued employment to maintain social and intellectual activity in old age. This is possible only if a person realized the need for continuous creation of themselves and their living conditions.

Currently, the ending of the life of modern people has moved from 60 to 80 years. Thus, after retirement, the person has a chance to live around 20 years of valuable productive life. This means that contemporary people's life path has a completely new period, which did not exist before. At that time, when the previous life attitudes were realized, the person opens up new possibilities of self-development in other areas. People, in their life, become able to realize the potential of self-development and to resist the pressure of adverse cultural forces. At any age, the opinion about people's abilities has a significant impact on the life efficiency and quality. Conscious and productive change in the trajectory of person's own life path not only questioned the idea of the inevitability of negative changes in the quality of life in old age, but also "removes" the problems of this age, as constant depression, deficiency and weakness.

**Format:** Paper presented in a Paper Session

# Developing English teachers as transformative agents (138)

Francisco Estefogo *(Faculdade Cultura Inglesa São Paulo)*

This communication aims at discussing the proposals of a postdoctoral project in Applied Linguistics developed at the Pontifical Catholic University of São Paulo. The main objective of the study is to investigate the complexity of the activity of developing English teachers as critical transformative agents. The context for this study is two subjects called "Reflective Teacher Development 1 and 2", held during the first year of an English teaching graduation course of a private college in São Paulo. These subjects aim at providing students with a theoretical and methodological framework for reflective teaching necessary to develop critical agency for their future English teaching practice so as to foster transformation to cross boundaries of school subcontexts. The main theoretical pillar is the Cultural-Historical Activity Theory (Vygotsky, 1930, 1994; Leontiev, 1978, Engeström, 1987, 1999), focusing on collaborative agency (Miettinen, 2013) as a way to potentiate the involved ones in a collective movement of overcoming issues related to English teaching from a critical transformative perspective. The focus is to investigate to what extent multimodal mediating artifacts constitute the development of agency of the involved participants in the activity, considering the chaotic situations, human complexity, 'life that one lives' (Marx & Engels, 2006), but with the omnipresence of creativity and innovation of human action that usually creates possibilities for a new object, a new order.  The data collected will be analysed and interpreted based on the perspective of critical and interpretative aspects, in the light of argumentative categories of interpretation (Liberali, 2000, 2004).

**Format:** Paper presented in a Paper Session

# The role of children's play in teaching-learning of English language (303)

Regina Estonlho *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

The present work aims at critically discussing the elaboration and implementation of didactic units for an English language course curriculum based on Social Activities, as well as their role in the reorganization of teaching-learning and the strengthening of bonds between school and life. Over the years, English language teachers have witnessed changes that generated more "impositions and restrictions" (Liberali, 2009) than transformations. Changes fall back on mechanical techniques that produce ahistorical teaching practices which do not take praxis into consideration. Prescriptive school curriculum favors the reproduction of models, and does not provide experiences for students who belong to a world that is changing very quickly, and thus, need to be prepared to act in different social contexts. Therefore, the present work focuses on the possibility of transcending borders. That is, how to create opportunities to take students beyond the school walls by bringing experiences to the classroom that may help them envision new horizons, and act consciously and critically in the modern world. The theoretical framework is based on the Socio-Cultural-Historical Activity Theory - TASCH (Vygotsky, 1934; Leontiev, 1977; Engeström, 1999; Liberali, 2009), on play based curriculum (Oers 2013), and on multiliteracies as proposed by the New Group London. Methodologically, it is anchored in the Collaborative Critical Research (PCCol) - (Magalhães, 2011). The project was carried out with a group of eight 10-year-old students from a language school whose proficiency level is basic. The analysis of preliminary results reveals the creation of new spaces for teaching-learning.

**Format:** Poster

# Materiality and activity scenarios: Longitudinal analysis of educational practices in infant school from 1 to 2 years

Luisa Fernanda Estrada Gómez *(Universidad Autónoma de Madrid)*

This research is a part of the project "Materiality and activity scenarios in infant schools from 0 to 2 years: Analysis of educational practices in Spanish and Latin American schools". We present preliminary results. The aim of this study was to analyze educational practices through the uses of material reality and semiotic systems. This study followed a longitudinal design. We videotaped once a month during four months, the central activity of the day in the classes 1-2 (years) in three infant public schools in Madrid. Two types of analysis were carried out: (1) A qualitative analysis of the activity scenarios centered on the selection, organization and uses of the material world, the nature of the activity, the role of the teachers and the participation of the children. (2) A micro-genetic analysis of each activity focused on the type of teachers' intervention and its orientation, the semiotic systems used by the teacher and the uses of the materiality promoted. We found 3 different types of educational scenario: Semi-structured, structured and directed. We identified 7 different strategies to introduce children to the uses of material reality: invitations, positive evaluations, accompaniment, reorientations, Distant demonstrations, Direct demonstrations and inhibitions. We also analyze the orientation of the interventions (Specific, adjusted and individualizer/General and homogenizer) and the different semiotic systems used by teachers in each of these interventions: Language, Gestures, Uses of Objects of ¨Direct¨ interventions.

**Format:** Paper presented in a Symposium (116)

# Meaning and sense of the work of teachers and psychic illness (056)

Marilda Gonçalves Dias Facci *(Universidade Estadual de Maringá)*

We are faced today with several teachers with psychological illness, which leads to their removal of classrooms and subsequent relocation in other functions. In this way, the objective of this paper is to discuss the relationship established between the illness of relocated teachers and the sense given to the pedagogical practice, based on the assumptions of Cultural-Historical Psychology.

Development: initially, we address teachers' illness and relocation; subsequently, we bring some assumptions of Cultural-Historical Psychology that can assist us in understanding the illness, discussing the concepts of sense and meaning, as well as briefly presenting some initial ideas on Psychopathology. As results, we defend the need for discussing the topic of research anchored in assumptions that go far beyond an individualistic, positivist analysis that naturalizes the phenomena, taking historicity into account. We conclude that, in several cases of illness of relocated teachers, there is a division between sense and meaning of teaching practice, being necessary to create, in schools, collective alternatives so that teachers and students can make use of the knowledge produced by humanity.

**Format:** Poster

# Towards a theoretical revision of the concept of dirty work in emerging countries illness (300)

Jorge Falcao *(Universidade Federal do Rio Grande do Norte - UFRN)*

This paper aims to propose a critical analysis of the concept of dirty work, firstly presented by American sociology in the fifties of the 20th century. Such a concept was firstly proposed in order to describe a set of jobs covering tasks socially seen as fastidious, dangerous, servile and not attracting any prestige or social valorization for those engaged in them. In emerging countries like Brazil, where unemployment and informal jobs are very frequent, the concept or dirty work grew-up and presently recovers not only not-prestigious jobs, but equally morally problematic ones (like prostitution), work done in special conditions (like work in prison), and work in context of job- exhaustion (like work of banking employees).  It is argued here that this excessive enlargement of the concept of dirty work is theoretically problematic since it proposes a unique characterization for a set of distinct phenomena. We will present arguments in order to show that even very negatively socially represented jobs in emerging countries like Brazil can be very strong in terms of their links to a professional gender, and a specific collective of colleagues. The concept of dirty work should, in consequence, be reserved for job domains where workers suffer from isolation concerning their relationship to a cultural instance, the professional gender, and their relationship with a group of colleagues allowing to discuss their shared job activity. The concept of dirty work should refer only to those activities in which one can't identify an instituted sense of collective work.

**Format:** Paper presented in a Paper Session

# Operationalizing Vygotsky's unit of verbal analysis: How to use speech acts to track the development of 'word meaning' (349)

Peter Feigenbaum *(Fordham University)*

'Word meaning' is Vygotsky's (1934/1987) unit of analysis for studying the development of verbal thinking in childhood, but the absence of a sufficiently articulated theoretical and methodological framework for examining actual samples of children's speech communications has prevented Vygotskian researchers from conducting rigorous empirical tests of word meaning. This presentation proposes a basic dialogical framework and locates within it several of Vygotsky's (1934/1987) most important theoretical formulations: the relationship between linguistic and psychological subjects and predicates; the differences between interpersonal (social) and intrapersonal (private) speech; the five psychological planes through which a thought passes as it is embodied in speech; and the four basic stages in the acquisition of linguistic structures during childhood—and the corresponding four stages in conceptual development. The proposed dialogical framework also establishes clear boundaries for defining an 'utterance' of speech, which in turn provides a fixed focus for applying an analysis of word meaning throughout development. Furthermore, this author introduces an additional analytical tool: 'speech acts'. Functionally, speech acts serve to define the communicative context in which words are used—a concept Vygotsky (1934/1987) referred to as 'sense'. Tracking sense in a conversation is essential for listeners, who require a communicative frame of reference for appropriately interpreting the intended meanings of words. This paper concludes with preliminary results from a study of 4-, 6-, and 8-year-olds in which this dialogical framework and speech act analysis were applied to samples of children's social and private speech.

**Format:** Paper presented in a Working Group Roundtable

# Dialectical thinking about language and academic activity: learning and development in developmental teaching (098)

Marília Ferreira *(University of São Paulo)*

V. V. Davydov´s pedagogical approach based on cultural-historical activity principles (Leontiev, 1981; Vygotsky, 1987, 1978) is known as developmental teaching (Chaiklin, 2002; Davydov, 1988a, b, c, d). It aims to promote development (motive formation and dialectical thinking) through six learning actions: problem situation question, modeling, modification of models, problem-solving, monitoring and evaluation.  Despite the recognition of its potentiality to education and appeal to transformation (Hedegaard & Chaiklin, 2005; Lompscher, 1999; Stetsenko, 2010), Davydov´s approach has neither been extensively implemented in schools nor investigated by scholars in the cultural-historical tradition. The studies reported are few and restricted to some subject matters like math (Davydov, 1990), sciences (Lomspcher, 1999), language (Aidarova, 1982; Markova, 1979) and interdisciplinary studies (Hedegaard, 2002). To fill this gap, this study aims to discuss to what extent postgraduate students developed dialectical thinking about language and scientific activity (Engeström, 1987) in a 50-hour academic writing course. Students' models and their solutions to language problems were analysed. The analysis shows that the postgraduate students could more easily conceive the new concept taught (scientific activity) dialectically than the already well-known concept language. They conceived language mainly empirically, as a tool for result (Vygotsky, 1978) and without questioning the reasons for its rules. These findings suggest that the empirical based teaching of language prevent students from fully appreciating its potential for agency and transformation, as Vygotsky's work argued for. A strong connection was noticed between students' commitment to the course and model drawing and their development of dialectical thinking.

**Format:** Paper presented in a Paper Session

# Family relationships for HIV patients (149)

Maria Irene Ferreira Lima Neta *(Pontíficia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Edna Maria Peters Kahhale *(Pontíficia Universidade Católica de São Paulo (PUC-SP), Brazil)*

The human immunodeficiency virus (HIV) affects not only the lives of those around people with HIV but relatives who live with an HIV-infected people. The diagnosis many times reveals a betrayal by someone in the couple and/or sexual practices, few people tell their families about being infected by HIV. Among those who do, there are criteria to tell and not tell a relative, as studies show this diagnostic causes family changes, as well as changes in their existing relationship. These relationships are sometimes so underrated that the concept of family, the daily living, and the family standards change differently in each case. This essay aimed to reveal the family structures of this demographics. It was carried out in an Infectology Ambulatory in São Paulo/SP, with 16 families. All participants signed the Free and Clear Consent Form and personally answered to questions related to family relationships, sickness history and family relationships with HIV. Results show us the family relationships, as well as the style and attitude of each relative matter when it comes to telling or not about the diagnosis. The secret for part of the family means loyalty among those aware of the situation, and this newly-set family cluster sets its own behavior rules, which are different than the rest of the family. HIV intensified an already poor family bond. Therefore, we believe there are many families in need of greater information about HIV, such as a place to share their fears and concerns with the HIV-infected relative.

**Format:** Poster

# Interventionist research used for professional teaching-learning in diverse and difficult ecologies where [dis]ability is socially [de]constructed (307)

Chair: Sueli Fidalgo *(Federal University of São Paulo)*

Sueli Fidalgo *(Federal University of São Paulo)*, Márcia Honora *(Federal University of São Paulo)*, Eliane da Silva *(Federal University of São Paulo)* & Lucineide Machado *(Federal University of São Paulo)*

In broad terms, the papers focus on the exclusion-inclusion dichotomy, discussing the extent to which schools have been promoting inclusive education, as prescribed by numerous national and international policies and treaties. More specifically, the papers debate (1) the education of the deaf in regular, mainstream schools; (2) the understanding that professionals have of a bilingual education for the deaf; (3) the relationships established among children and teachers when there is a disabled child in the classroom; and (4) teacher education within an interventionist approach for professionals working with a number of different specific educational needs. We also depart from the fact that data has continuously shown that teacher pre-service and in-service education in Brazil, especially for those professionals working with disabled children, is quite poor (Celani, 2003; Magalhães et all., 2006; Freire, 1992; Fidalgo, 2006). For this very reason, the investigations here proposed are all fully or partially realized in reflective sessions (Magalhães, 2002) that follow lesson observations and recordings, or in teacher education extramural courses. The idea is to find actions that may also be carried out by students with specific needs in the classroom so as to make sure that these students have a chance at being agents of their own learning development (Vygotsky, 1993).

**Format:** Symposium

# What the language used (in schools and public policies) tells us about inclusive practices for children with specific educational needs

Sueli Fidalgo *(Federal University of Sao Paulo (UNIFESP, Brazil))*

Developed within Socio-Cultural-Historical studies, and bearing in mind the means by which this area connects with other areas of knowledge production, more specifically: Critical Applied Linguistics (Pennycook, 2001), Critical Theory (Heller, 1996) and Critical Pedagogy (Freire, 1970), this investigation aimed at looking into the language that is employed either to include or exclude participants in educational contexts in Brazil. It was carried out in schools since it is in school organizations that this dichotomy is mostly seen, both historically speaking and in the microgenesis of each lesson that is taught (Fidalgo, 2005, 2006). The former will be shown through the analysis of educational laws and public policies that have traditionally been prescribing the work developed within the public-school environment; the latter through classroom observation and video recorded lesson excerpts, as well as field notes. The paper will discuss school inclusion, a rather popular, yet controversial policy in Brazil at present, due to the way it has been practiced throughout history and more precisely in the last few years, when the term has actually been educationally defined, and an attempt is being made to implement it. The focus on the language employed is to verify if, by what means and in which instances the project of school inclusion has been successful and has led to social inclusion. Whilst analyzing the policies of inclusion, we also analyze the dichotomy found in the inclusion-exclusion of educators (who lack teacher education), sometimes resulting in further exclusion for students. The actual picture may be described as follows: sometimes, in one class, we might find more than one child with specific need: one might be dyslexic, another, deaf; and so on. Most public-school classes are overcrowded – with between 40 and 60 students for state schools and between 30 and 40 for local, municipal schools. There is only one teacher per class, in the case of the state school; in the case of the local school, there may be a teacher and a Sign Language instructor where deaf students are enrolled. I said "may be" because this is a legal right, but whether or not the deaf children will have their right respected depends if there are professionals available, and there are not many instructors with sign language proficiency in São Paulo yet. Sometimes, Sign language interpreters are hired for the job, but these are not teachers. The teachers themselves, as I have stated, have little, if any, education on special needs. Most have none. I speak from the social place of an Applied Linguist, which means that I believe that it is through language that we can maintain or challenge the status quo. I prefer to question and make room for others to question too. This allows for empowering. The research that I will briefly discuss here was carried out in my research groups: ILCAE and GEICS. The first stands for Language Inclusion in Educational Activities Scenarios. The second, a Study Group on Deaf Identity and Culture. (Fidalgo, 2016) Theoretically speaking the paper is based on the dialogical understanding of language; one that looks at language as "a field of conflict" (Bakhtin/Volochinov, 1929); a teaching-learning perspective that focuses on the triad conflict-negotiation-transformation (Vygotsky, 1930); besides sociocultural-historical concepts of 'defectology', especially that of compensation (Vygotsky, 1993) – term that is in need of much discussion - zone of proximal development, mediation. We also bear in mind the concept of higher mental functions – since this seems to have been Vygotsky's chore concern in his discussion about students with specific needs and their learning-development. Methodologically, the paper is based on the critical research of collaboration (Magalhães, 2006, Magalhães and Fidalgo, 2007, 2010), which also assumes that every interaction will be based on conflict and negotiation – which leads to knowledge production. This methodology takes the collaborative events that take place in the zone of proximal development as an instrument and result (Newman & Holzman, 1993) par excellence for the transformation of senses and meanings (Vygotsky, 1930) that participants bring to the lesson, or to a teacher education meeting, or any other place/instance where participants gather with the intent of teaching-learning and producing knowledge. Teacher education is a complex area of work, and this intricacy may be thus explained – albeit in very general terms: each teacher has a different set of senses by which they understand the world (and their classrooms, their work, the public policies that they have to implement). Confrontation that occurs in the meetings requires "the questioning of socio-cultural issues that historically have

organized the uses of language and the division of labor, as well as their political meaning" (Magalhães & Fidalgo, 2010), and – for those using collaborative methodology - it must take place in a way that joint consideration of the many interests and needs of the participants involved are equally considered, voiced and discussed. This takes time and requires sensitivity. The work that will be presented was developed as part of a joint project involving public schools and a public university in Guarulhos, the largest city in the outskirts of Sao Paulo. It was carried out by undergraduate and graduate students and a senior researcher as part of an Extramural Program in which we implemented an intervention project of teacher education for teachers working with elementary school students that present specific educational needs. Initial results indicated that most teachers could not identify what special needs the students in their class had, let alone work with them. Therefore, many young people were/are going through the system without receiving any quality education. After the initial result had been analyzed, the team organized extramural courses with the teachers. Data from two of these courses will be used in this presentation: (1) a course in which participants (always including the school teachers) work with deaf children. This is set up in a way that (a) allows participants to read and discuss texts pertaining to the education of deaf children: Brazilian sign language, written Portuguese as a second language, among other aspects. As a result, the team has concluded that the methodology currently being used with students in the mainstream schools for teaching Portuguese is not resulting in learning. For this reason, the group is implementing and testing a new second language teaching-learning methodology with the children. (2) a course in which participants present the difficulties they have been able to identify in their students with specific need; the group researches in order to find out what special need this is and reads about it; after considerable reading and discussion, participants adapt a part of the curriculum for that specific child. This is then implemented and tested with feedback being presented to the team (Fidalgo, 2016). The projects are ongoing, but their initial results now show that teachers feel more confident to initially identify the needs they have in the class (the final identification and report is evidently left to such professionals as psychologists, physicians, neurologists, among others). This initial identification, however, as well as being able to develop the tools they feel necessary, and having the group support, allows teachers to plan their lessons for each child or group of children accordingly.

**Format:** Paper presented in a Symposium (307)

# Collaborative teaching praxis as a locus of argumentation, deliberation and expansive learningconstructed (295)

Adriana Fiori-Souza *(Universidade Estadual de Londrina)* & Elaine Mateus *(State University of Londrina)*

This paper aims to report on a collaborative teaching experience carried out in the context of the Institutional Program for Teacher Initiation (PIBID), within a subproject of English Language Teaching held at State University of Londrina/Brazil. In particular, it investigated emerging historical contradictions as elements that promoted deliberative dialogues and triggered expansive learning. The research is based on collaborative studies; Activity Theory and the Expansive Learning Cycle; Critical Discourse Analysis and Practical Argumentation/Deliberation. Five student teachers, a cooperating teacher, a supervisor and a coordinator participated in the collaborative English teaching experience and were in charge of four classes of senior high school students at a public school in Londrina. The research data consisted of audio recording transcripts of eight reflexive sessions, during which participants deliberated on difficulties and conflicts that surfaced in the course of praxis implementation. Data analysis, based on the interlocution between Practical Argumentation/Deliberation and the Expansive Learning Cycle, led to considerations about the ways in which language enables critical questioning and collaborative knowledge production, which served as a basis both for assessing proposed actions and for their potential transformation. Such movements, compared and contrasted with the Expansive Learning Cycle, suggested that the collaborative teaching praxis was a locus of expansive learning.

**Format:** Paper presented in a Working Group Roundtable

# Emotional imagination during teacher-child play in playworlds

Marilyn Fleer *(Monash University)* & Rebecca Lewis *(Monash University)*

The research of Gunilla Lindqvist introduced playworlds as a pedagogical approach for developing children's play. She drew upon Vygotsky's conception of play and drama pedagogy, resulting in a playworlds approach which positioned teachers as taking an active role in children's play. Since then, this research has been further elaborated and developed (Hakkarainen et al., 2013). Insights have been made into how playworlds work in other countries, such as Finland, Lithuania and Australia (see other presentations). One of the unique features has been the need for teachers to be inside of the playworld. Despite the evidence from this body or research showing that children welcome teachers' involvement in playworlds (Lindqvst, 2003), it appears that teachers have not always felt comfortable in this new role. What is missing from this research is an exploration of how teachers make sense of their new role, and how they emotionally engage with playworlds. In drawing upon the work of Vygotsky (1987) and Zaporozhets (2003), this presentation uses the concept of emotional imagination to understand better how children and teachers make meaning together in playworlds. The presentation will report on an analysis of 37 Australian early childhood teachers from across a range of studies, as they introduced and lived through playworlds. Each of the playworlds had a slightly different focus (e.g., scientific playworld; fairytales; digital playworld; executive function activities playworld), giving broader insights into teacher crises, emotions, and practices (El'koninova, 2001, 2002; Lobman, 2010). In taking the teachers' perspective, the study has shown that new forms of pedagogy are practiced, new conceptions of children's play emerge, and new understandings about the psychological development of children became possible. Teachers noticed how children changed the meaning of actions and objects in playworlds, and how children moved from the object to the idea of the object, and then to the word and back in their play narratives. It is argued in this presentation that research into play should also study how play supports the development of teachers.

**Format:** Paper presented in a Symposium (038)

# Playworlds, emotions and play explorations (038)

Chair: Mariane Hedegaard *(Copenhagen University)*

Marilyn Fleer *(Monash University)*, Mariane Hedegaard *(Copenhagen University)*, Fernando González Rey *(University Center of Brasilia/ University of Brasilia)*, Rebecca Lewis *(Monash University)*, Åsta Birkeland *(Western Norway University of Applied Sciences)*, Hanne Værum Sørensen *(Western Norway University of Applied Science)*, Liv Torunn Grindheim *(Western Norway University of Applied Science)*, Elin Eriksen Ødegaard *(Western Norway University of Applied Science)*, Ruth Ingrid Skoglund *(Western Norway University of Applied Science)*, Milda Bredikyte *(Lithuanian University of Educational Sciences)* & Sue March *(Monash University)*

This double symposium deals with the shared problem of how play creates the conditions for children's learning and development. It draws upon Vygotsky's (1966) original conception of play as the theoretical foundation underpinning the eight papers. The first symposium focuses on emotions and children's playworlds and the second symposium discusses play explorations from societal, institutional and personal perspectives. The first three papers (Fleer, Lewis, Hakarrainen, Bredikyte, & March) use Lindqvst's (1995) original play method to discuss the theoretical and empirical developments observed through their research, and the fourth paper by Gonzelez Rey draws out the theoretical dimensions of emotions in relation to subjective sense and subjective configuration. The second symposium focuses on the different perspectives of global-societal perspective, a Nordic institutional perspective and a practice and child perspective. The first paper (Birkelund and Værum Sørensen) takes a global perspective and explores the different societal conditions that influence children's outdoor play. Next, Grindheim explores the relation between the demands children meet in the Nordic kindergarten and how they find ways to research what is important to them. In Eriksen's, the focus is on how institutions create conditions for play activity influence how children explore while playing and how this is reflected in their experience. In this paper, 'play exploration' is seen as a crucial practice for kindergarten pedagogy. In the last paper (Hedegaard), examples of children's play in different life periods is presented to point out the importance of children's play as a possibility for exploration.

**Format:** Symposium

# The relational agency framework as a tool for supporting the establishment, maintenance and development of multidisciplinary networks of professionals

Marilyn Fleer *(Monash University),* Iris Duhn *(Monash University)*

This presentation shows how the relational concepts have been used in an Australian evaluation study of nine multidisciplinary networks of early childhood professionals who worked together during a period of professional development to realise new approaches to assessment. The evaluation sought to examine how professionals from these nine networks changed their ways of working when collaborating for the improvement of outcomes for children in their regions. Data from professional inquiries and pre- and post- surveys were interrogated using the three relational concepts. The study revealed that successful partnerships exercised relational expertise and built common knowledge, giving rise to new narratives about professional practice. Out of the analysis of the data from the study, a Relational Agency Framework was developed and will be presented in relation to the three concepts.

**Format:** Paper presented in a Symposium (029)

# Reimagining what it means to be black in the US: How family cultural socialization practices shape racial identities among diverse young adults

Latifa Fletcher *(City University of New York Graduate Center)*

Black individual's racial identity development is influenced by social positioning, unique ecological demands, and the cultural contexts in which both interact. Critical factors such as racism, discrimination, and other forms of oppression are deeply interwoven in how they see themselves and how they navigate different social systems. Family cultural socialization practices shape black individual's racial identity and influence responses to systems of power that black individuals encounter. The black population in the US has changed significantly with more individuals identifying as Afro-Caribbean and Afro-Latino. Historically, black identity research has relied significantly on experiences of African Americans to outline its development. Because the salience of race is often dependent on sociocultural contexts, it is important for research to incorporate the changing cultural practices and understandings of blackness that varies and lies dependent on evolving sociocultural contexts and sociohistorical positioning.

Social practice theory will be used as an organizational tool to understand black racial identity development. Additionally, this paper examines black racial identity as a dynamic set of activities that changes based on sociohistorical positioning. This study addresses both agentive and social dimensions of identity development in young black adults by examining the meaning that young black adults derive from their participation in family cultural socialization practices that shape identity. Young adults who identify as African-American, Afro-Caribbean and Afro-Latino will be interviewed using open-ended questions on facets of racial identity development and how they perceive the family cultural practices that shape their identities. The goal of this research is to: explore black racial identity development of diverse cultural groups, to explore how black individuals' understanding of family cultural socialization practices contributes to how individuals' racial identities develop, to examine how identity and cultural practices are influenced by the intersection of multiple social identities, and finally, to examine how racial identity and the understanding of blackness varies across cultural contexts.

**Format:** Paper presentation on PhD Day

# Refining student teachers' mathematics content course through mathematical problem solving (289)

Kathleen Fonseca *(University of Johannesburg)*, Elizabeth Henning *(SARCHI Chair Soweto campus University of Johannesburg)* & Nadine Petersen *(University of Johannesburg)*

This study reports on a design based research project that was aimed at refining a course in mathematics. The participants were student teachers in the second year of their program at an urban university in South Africa. The custom-made curriculum followed DBR principles during the process, which progressed over three phases: eliciting design principles from the literature, to address the (design) problem, a study of needs and opportunities the design could address and the form the resulting design took. In this DBR study, we set out from an analytical framework of student learning of math for teaching as a specific activity system in which the unit of analysis would be the students' learning, evidenced by their problem-solving competence which is the confluence of the math facts knowledge, their procedural knowledge and, of course, their conceptual knowledge. The study also reports on the student teachers' mathematical problem solving beliefs. Findings on the mathematics problem solving beliefs suggest that students strongly belief that sequenced steps should be taught in order to be successful in problem solving. Findings also indicate tensions between students and mathematical understanding.

**Format:** Paper presented in a Paper Session

# Inner speech as a public phenomenon: Revisiting the person - culture interaction like a basis of cognitive development (166)

Pablo Fossa *(Universidad del Desarrollo)*

This work shows a theoretical articulation of inner speech as meaning construction space. For this, a systematization of inner speech of Vygotsky (1934) and the model of hyper-generalization of Valsiner (2006) - based on pleromatization and schematization processes - is reviewed. I conclude that inner speech is a context of meaning construction in the inner experience that integrates schematic and pleromatic function, increasing and decreasing the complexity. The integration of both processes generates a field of meaning hyper-generalized that express the complexity of the original experience and transforming process these signs in iconic and metaphoric gestures in nonverbal behavior. A relationship between pleromatization, physiognomization and metaphoricity as phenomena – holistic, whole, organismic – that are integrated into the perception and construction of human experience, is established. On the other hand, a direct relationship between schematization, geometrical-technical perception and iconicity as another dimension – objectified, particularistic and cognitive – of making sense in human experience, is established. Inner speech is a complex phenomenon of genetic pathways in opposite directions: from the expression of the deeper states of consciousness and from the internalization of socially constructed meanings. Deep states are mediated by deploying internalized meanings within language that acts as a border zone between inner experience and the social and cultural environment.

**Format:** Paper presented in a Paper Session

# The expressive dimension of inner language (167)

Pablo Fossa *(Universidad del Desarrollo)*

This paper is a theoretical proposal on the expressive dimension of inner speech. The phenomenon of interest emphasizes Karl Bühler's proposal regarding the expressiveness of language; Heinz Werner's studies about a physiognomic-organismic dimension of human language; and the theoretical and empirical approach of Lev Vygotsky on the inner language phenomenon in human experience. I conclude that in some passages of Vygotsky's work are the keys to an understanding of the expressive inner speech, specifically the influence of affective-volitional sphere of consciousness in the development of thought and language. Finally, an integration of Vygotsky's monological conception of inner language, the Wernerian's physiognomic-organismic notion of language and Bühlerian's expressive dimension of human language, for an inclusive understanding of the expressiveness of the inner language, is developed.

**Format:** Paper presented in a Symposium (087)

# Development as a contradictory process: turning points in the process of child's scientific thinking development (074)

Glykeria Fragkiadaki *(University of Patras)*

The conceptualization of psyche development as a linear process oriented towards a psychological equilibrium has been considered a fundamental concept in the field of classic psychological theories and methodologies. However, the legacy of Vygotsky's non-classic psychology foregrounds "an abstract dialectical idea of a contradiction as a moving force of development." Focusing on contradictory social interactions between kindergarten children, the present cultural-historical study aims at featuring the way that unique developmental trajectories are dramatically constructed. The study seeks to determine what forms of dramatic events can occur in everyday kindergarten settings and how these events can act as turning points in child's scientific thinking development. A developmental research methodology as specified from the requirements of cultural-historical theory framework was used. The research sample consisted of 101 kindergarten students aged 4.5-6 years in Greece. An analysis of the conversational data gathered during collective science experiences regarding a specific natural phenomenon demonstrated that children's interactions were generally alive with dramatic events. The forms that emerged from data sets analysis were organized into the following basic categories: collisions, impasse situations, provocative situations. The outcomes showed that whilst these events caused a temporal loss of equilibrium at children's interactions, a kind of narrow crisis, they acted as turning points at their developmental trajectories creating the conditions for the development of their scientific thinking. Implications for early childhood science education include consideration of the utilization of the contradictory social situations as a moving force to children's thinking developmental process rather than as a communication barrier.

**Format:** Paper presented in a Paper Session

# Some sources of inspiration in Davydov's approach in mathematics teaching and learning

Viktor Freiman *(Université de Moncton)*

It is always fascinating to read Davydov's works on teaching and learning mathematics, especially his ideas about the early introduction of abstract concepts in algebra and measurement. While the psychological origins of his pedagogical ideas are well documented in western literature, we should also pay attention to other sources, namely those coming from the fields of mathematics, didactics, and philosophy. In my presentation, I outline the richness of interactions with mathematical and didactical schools of thought in Russia and in Europe, which brought new ideas of introducing arithmetic and algebra into the elementary curriculum. From the philosophical perspective, a close investigation of the relationship between Davydov and Schedrovitsky's Moscow Methodological Circle and Kharkov's school of methodology is an interesting task to be carried out. More specifically, in his texts published in the 1960s that laid the foundation of his approach, Davydov cites works by Galanin and Bronstein, Russian Methodists in mathematics teaching from the beginning of the 20th century. Also, the works of mathematicians Lebesgue, Khinchin, and Kolmogorov are often mentioned within the context of that day's reform of mathematics education based on introducing modern ideas of set theory, logic, and calculus, along with algebraic structures. Finally, much of the philosophical ideas about teaching and developmental learning are the results of constant exchanges between Davydov and philosophers from Schedrovitsky's Moscow Methodological Circle. One of them, Gromyko, made important contributions to the latter years of the development and implementation of Davydov's approach. In-depth investigation of these sources is important for a better understanding of the uniqueness of Davydov's insights about the role of reflective and theoretical thinking, and at the same time, the multidimensionality of his ideas and approaches. This multidimensionality resulted from Davydov's ability to clearly formulate his view, which is well-grounded in history and epistemology, and, at the same time, his ability to confront his own view with the views of others in the form of debates, which not only helped Davydov shape his own vision but also share it with the community. This factor is also important in the context of implementing his approach in school practice, not only in Russia but in the educational systems of other countries as well.

**Format:** Paper presented in a Symposium (078)

# Collaborative work in the context of the education observatory project – Obeduc: reflecting on the role of the other in the elaboration of teacher knowledge (096)

Ana Paula de Freitas *(Universidade São Francisco)*, Adair Mendes Nacarato *(Universidade São Francisco)* & Daniela Dias dos Anjos *(Universidade São Francisco)*

This paper focuses on collaborative work done in the context of research developed with the Education Observatory Program (OBEDUC/CAPES), São Francisco University, Itatiba, São Paulo. The group is constituted by primary teachers, post-graduate students and professors. The main theoretical reference of our analysis is the historical-cultural perspective of human development, with an emphasis on the postulates of Lev S. Vygotsky. We understand that collaborative work is a privileged instance for the teachers' development and we see it as a social practice, a place for the production of meanings, since, through technical-semiotics instruments (written narratives, oral discussions, theoretical texts, among others) the teachers give new meaning to their teaching activity, that is, experiences shared in the group transform themselves into individualized experiences. The research data was organized in two ways: 1. Narratives of practices produced by teachers through records of audio recordings, video recordings and photos. Such narratives are shared in group meetings once a month. 2. Transcription of recordings of group meetings where all participants analyze narrated practices. The main results are: 1) knowledge of new content in the Brazilian curriculum (algebraic thinking) and on how to teach it; 2) Written narratives that produce meanings; 3) How to record the practices developed in the classroom and to write about them; 4) Understanding literacy practices, expanding the theories that the group studied.  In the teachers' narratives and from discussions in the meetings, we see evidence of the learning built from this collaborative process.

**Format:** Poster

# High school students' collaborative learning integrated with teacher-led dialogical scaffoldings (378)

Yutaka Fujita *(Faculty of Education, Kumamoto University)* & Suzaka Nagata *(Graduate School of Social and Cultural Science, Kumamoto University)*

In the present study, we investigate to take more evidence concerned with learning through argument with teacher-led scaffolding in national language classes in a Japanese high school. We focused on the functional cooperation between students' discussion-based learning and teacher-led scaffoldings. The second grade of 10 students participated in the national language class organized as one of advanced courses of extra-curriculum for preparation of the university entrance examination. Three or four students were brought together in a group and required to take perspectives of examination designer to create university entrance examination reading question. With Resnick et al.(1993)'s developed graphic coding system applied, we made comparative and pseudo-experimental design to investigate the effect of timing of teacher-led scaffolding (early-, mid-, late-period) on the students' collaborative learning. Main results showed that there seemed to be better timing (during mid- to late-period) of the argument when teacher-led scaffolding could cooperate with students' collaborative discussion for the creation of reading question with a model answer based on the robust accountability of logical reasoning they shared.

**Format:** Paper presented in a Paper Session

# Building on activity theory to enhance capabilities in international development projects

Tatiana Garakani *(ENAP (École nationale d'administration publique), Canada)*

Vygotsky brought attention to individual and collective agency, and affordances that social, cultural and historical factors offer. The concept of human agency has been at the forefront of international development discourse, shaping human-centred approach and capabilities framework. In this view, development must help expand people's choices and create a conducive environment for people to develop their full potential and to have a reasonable chance of leading productive, creative, and meaningful lives in accordance to their needs and interests (Chandler, 2013). But subjects cannot be separated from their social, cultural and political environment and the structures of power. This complexity is compounded further by the diversity and multiplicity of stakeholder networks. This chaotic open system requires critical system thinking. Engeström's third generation cultural-historical activity allows to expand the unit of analysis from a single activity system to multiple interacting activity systems. This presentation links the cultural-historical activity framework to complex adaptive systems analysis and Sen's capabilities approach to highlight the debated strategies to enhance participation, empowerment, choice-making capabilities, freedom, individual and collective values and agency. Several international projects over the past two decades will be used to illustrate strategies and lessons learned.

**Format:** Paper presented in a Symposium (261)

# Affectivity in the classroom: How teacher-learner emotional bond interfere in development (400)

Daniele Gazzotti *(Universidade de São Paulo)*

This paper aims to critically understand the affective bond established between educator and learner in school context under the social-historical-cultural perspective. The process analyses child development in relation to play and child agency, investigating how these aspects of school situation may help strengthen the affective bond among educator and learner and how this may impact the global development of children. For that matter, it comes from a social-historical-cultural approach (Vygotsky, 1934; Leontiev, 1977; Bahktin, 1981), based on Marx's historical-dialectical Marxism (1865) which considers the role of environment, social interaction and emotional experiences essential to the constitution of subjects, their consciousness, and their psychological systems. Play (Leontiev, 2016; Vygotsky, 1934 e 1926) and child agency (Ahearn, 2001; Mercer, 2012; Freire, 1996; Cousinet, 1949; Pontecorvo & Zucchermaglio, 2005; Dewey, 1916; Vygotsky, 1984, 1972) are seen as tools that enable the teaching-learning process, fasten development at the same time as make it viable to enhance the affective bond among those who take part in the school context. The data produced consist of daily school activities recorded and analysed in relation to the theoretical background. The results point to a higher involvement and development of children as well as more significant emotional experiences in those when children experience being agents of their teaching-learning processes.

**Format:** Poster presentation on PhD Day

# Foreign Language Learning in secondary school as social practice: findings from a pedagogic exchange project

Jan Georgeson *(University of Plymouth)*

As have other curriculum areas, Foreign Language Learning (FLL) has benefitted from developments in ICT; however, it 'differs greatly from most other subject areas in the curriculum: it is both skill-based and knowledge-based' (UNESCO 2004:4). Furthermore, to overcome ICT uses in FLL classes amounting to no more than online textbooks and exercise correction tools which place the learner in a position of passivity, there are recommendations that 'teachers abandon traditional roles and act more as guides and mentors, exploring the new media themselves as learners and thus acting as role models for their learners' (UNESCO 2004:5). FLL and teaching, therefore, present a particular context within the school system in which teachers are expected to take on a less didactic role, often set against a backdrop of increased emphasis on students' outcomes (notably examination results). This suggests some uncertainty for those involved in FLL, both teacher and students, about the ways of doing, being and saying which are appropriate or possible in the context of the FLL classroom. In this presentation I will use a combination of Activity Theory to explore FLL in the context of the school system (Lantolf & Thorne, 2006) and Social Practice theory (and in particular the notion of schools as Figured Worlds, Urrieta, 2007) to explore the positions which teachers and pupils can adopt in FLL classrooms. This exploration will be based on findings from a two-year project investigating Second/Third Language Learning pedagogy in a secondary school in Devon, UK and an all-age school in Galicia, Spain. In both countries, FLL is shaped by social-cultural affordances and constraints that are different from other subject areas, leading to particular tensions within the school context. The project had a dual focus on teachers' developing understanding of the pedagogic potential of using Apple iPads in FLL classes with 11-12-year-old pupils, and on pupils' motivation for and attitudes towards learning a second (or in the case of Galicia – third) language. Data collection included online questionnaires, observation and video recording of lessons followed by focus groups with pupils and reflective conversations with teachers as well as engagement in collaborative lesson delivery between Spain and the UK. Teachers' involvement in the pedagogic exchange project supported reflective thinking about their own practice and Tobin's dialogic approach to fieldwork was used in the interpretation of their reflections (Tobin, 1997). Teachers voiced their views on the transformative power of ICT as tools to support learning and, as well as their experiences in the project, drew on their own experience of learning a foreign language in different cultural and international contexts. While all pupils said using iPads made FLL work more interesting, reasons why this was the case differed across the two countries, across the ability groupings and between boys and girls. The interaction between self-motivation and competitive classroom culture has been linked to the creative as well as the rote-learning potential of iPads (Naace, 2012), both aspects of pupil motivation highlighted as of particular importance in FLL (Bolster, 2009). However, they played out differently within and between the two school contexts, both in peer culture and school ethos regarding English in the Spanish school, and French/Spanish in the English school. Using Activity Theory and Social Practice theory to think about what it's like to teach or be taught in an FLL class in a particular sociocultural context helped to go back and forth between individual and system level considerations and to understand better the complex relationship between person and context.

**Format:** Paper presented in a Symposium (247)

# Teachers' reflections on a mandatory award for coordination of special educational needs: roles, trajectories, context (273)

Jan Georgeson *(University of Plymouth)*, Rowena Passy *(University of Plymouth)*, Irene Kaimi *(Queen Mary University)* & Nadine Schaefer *(University of Plymouth)*

This presentation is based on an analysis of responses to research into the impact and effectiveness of NASENCO - the National Award for Special Educational Needs Coordination in England, UK. Since 2008, this Award has been a mandatory requirement for all newly appointed special educational needs coordinators (SENCos), although experienced SENCos already in post and aspirant SENCos are also able to undertake the Award. The Award is therefore taken by teachers at different stages in their careers. The period since the Award's inception has seen many changes in educational policy, many of which relate directly to special educational needs, including a new Code of Practice. The UK education landscape is also changing with the promotion of new kinds of schools with different governance structures, and other changes resulting from the widespread reductions in funding after the financial crash. The context for SEN is therefore changing and becoming more diverse; the Award has also diversified following the withdrawal of government funding in 2014, when it was opened to the market with new providers entering the scene.

In offering views on the Award, our respondents (N=1109) gave us rich information about the context for SEN provision in their schools. We sent out online surveys to schools, parents and children with SEND to discover different stakeholders' perspectives on the Award in England.  The online survey included rating tasks and questions asking for comments, which were answered fully by many respondents. We also interviewed 20 SENCoS and 15 parents, and therefore have a rich dataset that includes quantitative and in-depth qualitative responses

A complex picture is emerging about how the award might influence provision. We are using Social Practice theory (and in particular the notion of schools as Figured Worlds, Urrieta: 2007) and Dreier's (2002, 2008) concept of personal action potency to explore how achieving the Award affects teachers in different contexts. Analysis so far suggests three major influences: **Personal resources** (previous experience, willingness to train, enthusiasm for study, expectations of the Award); **Content and delivery of Award** (flexibility of approach, relevance to own setting, opportunities for networking) and the **Context within which SENCos are working** (how well SENCos are supported, whether they are able to use their new personal resources in their schools when they have finished the Award).  Dreier depicts personal action potency, or agency tempered by resources and constraints, as individual potential for action. However, we have suggested that the strength of the potential to act with influence can be a shared or group capacity (Payler and Georgeson, 2013) and this resonates with the emphasis placed by SENCo respondents on the importance of networking beyond the school, both during and after the course. We are therefore considering how SENCos, at different stages of their careers, might build personal action potency in beyond-the-setting interactions in two ways: through (emotional and practical) peer support which enables them to take up positions in their schools that better reflect the aims and values underpinned the Award, and through the development of relational agency (Edwards, 2005) to provide them with outside connections to work more effectively.

**Format:** Paper presented in an Interactive Paper Session

*3.1 Farther reaches of theoretical and methodological explorations*

# Becoming a vegetarian: the role of socio-materiality in change of foodway

Fabienne Gfeller *(Université de Neuchâtel)*

Foodways (activities and representations related to food) are strongly rooted in the materiality of one's own body, the products consumed and the broader environment (Anderson, 2005). At the same time, they are strongly oriented by the socio-cultural environment, through which they are transmitted in a more or less formal context (Kontopodis, 2015; Ochs, Pontecorvo & Fasulo, 1996). Studies about change in foodways highlighted the role of values and representations in this process of change (Lewin, 1943; Ossipow, 1997). My purpose is to bring the focus on the socio-material components of this change through the example of trajectories of people changing their consumption of animal products. Analyzing interview and video-based data, I will present which socio-material elements are relevant in the development of these trajectories, and how these play a role in the process of change. I address change drawing on a socio-cultural understanding of human development in terms of identity dynamics, knowledge building and meaning-making (PerretClermont & Zittoun, 2002).

**Format:** Paper presented in a Symposium (116)

# Beyond the literal: The comprehension of humor texts by subjects with Down syndrome (211)

Carla Salati Almeida Ghirello-Pires *(Universidade Estadual de Vitória da Conquista)* & Sonia Shima Barroco *(Universidade estadual de Maringá)*
*)*

Scholars of Down Syndrome (DS) point out that subjects under this condition have difficulties in the operation of abstract thinking and understanding of non-literal texts, as jokes. According to Vygotsky, everyone can learn. The aim of this research was to analyze the difficulties that young people with DS present in the understanding of humor texts. The target audience was composed of six young people with DS, between nineteen and twenty-two years old. The methodological procedures involved the presentation of 4 small comics in two sections, with a three-day interval. In both, stories were presented, and the young people were asked to read and report the illustrated facts, demonstrating an understanding of jokes. When they didn't show it, instrumental mediations were performed. In the second section, the same jokes were retaken, seeing if they held understandings and how long it took them to respond. As a result, we highlight: in the first presentation of each joke, we observed that the subjects required several mediators clues to understand the non-literal content. One reason is due to the fact that they do not pay attention to the entire content displayed by focusing only on details of the material. In the second section, the majority of the subjects came to fully understanding of the jokes, showing assimilation of the idea of non-literal text and, moreover, they were faster in understanding new jokes submitted. It is concluded that the subjects reached appropriation of non-literal thinking from instrumental mediations, being the mediator is a key part to organize their thoughts.

**Format:** Poster presented in a Structured Poster Session

# Cultural-historical social pedagogy: A case of didactic-pedagogic dialectical-interactive intervention within the convergent epistemological regions of the social assistance and the education (286)

**Alexandre Giffoni Junior** *(Universidade de Rio Verde)*

This is a dialectic-interactive qualitative research with the Cultural-Historical approach in the form of a didactic-pedagogic intervention. It is a case study with the Davidovian experiment with teachers, pedagogic coordinators, and children at the Association for Children Support Joanna De Ângelis-AJA, in the city of Rio Verde, State of Goiás, Brazil. The research shows that it is possible to articulate the Social Pedagogy (Caliman, 2010) and the Cultural-Historical approach (Giffoni, 2014) in order to create new concepts within a changing movement of social assistance and education with subjects acting in risk and poverty social situations. The methodology was the radical-local teaching and learning approach (Hedegaard and Chaiklin, 2005) and Fichtner's (2009) and methodology of paint and photography description of the geographic subject's daily life activities. The research opens possibilities for AJA and other institutions to solve their own problem in the converging point of the social assistance and the education: Brazilian laws don't allow institutions with the main objective of social assistance to be supported by the City Secretary other than Social Assistance Secretary, but AJA's educators have been paid by the Secretary of Education. The research also opens new avenues for the foundation of Institutions in this convergent point, by studying the function of the Social Educator in the field of Social Pedagogy in Brazil. In this sense, an International Colloquium was promoted within the research: to study the work of a Social Educator inside the schools and other institutions. The research has been supported by Universidade de Rio Verde-UNIRV.

**Format:** Paper presented in a Working Group Roundtable

# Effects of school chess training on dynamics of child development (409)

Oksana Glukhova *(South Ural State University)* & Svetlana Volikova *(Lomonosov Moscow State University)*

The Chess for Overall Development Project has been evolving in the Vertical Chess Club in Satka (the Chelyabinsk Region, Russia) since the autumn of 2004.
Educators taught children the chess basics and used Chess as a vehicle for their overall development relying on the emerging ability to perform mentally (P. Galperin); core assumptions of the Reflection and Activity approach (RAA) (V. Zaretskii), and principles of Vygotsky's theory of the zone of proximal development.
A longitudinal research performed in 2004-2016 investigated specific effects of the chess training on the children's cognitive processes in a sample of 700 school students (Grades 1 to 9) in Satka who either received chess training or were in a no-chess group. The researchers assessed the children's core mental functions: memory, attention, cognitive performance, intelligence and some others.
During the aforementioned period, most students in the chess and no-chess groups improved their overall level of the cognitive processes. Nevertheless, the experimental group of students were consistently improving their outcomes in a wider range of the cognitive indicators throughout many years. The analysis of the findings showed that this improvement resulted from the use of the Chess for Overall Development Method, which relied on the principles of RAA. The experimental group of children performed better than their peers as far as the following 7 indicators were concerned: they improved their auditory and visual memory and started performing better on the tasks relating to non-verbal thinking. The students improved their levels of attention, cognitive performance, and their ability to plan actions mentally.

**Format:** Paper presented in a Paper Session

# Learning as an activist trajectory: "First Steps into Activism" (226)

Kristen Goessling *(Penn State University)*

The critical qualitative research took place in Vancouver, British Columbia, and focused on a group of young people who were learning to become activists through participation in a youth-driven organization, "Think Again" (TA). Conceptualizing TA using a community of practice lens provided an opportunity to examine, with young people, alternative places of learning. I utilized a narrative framework (Bruner, 1990) to analyze observations and field notes, interviews, and cultural artifacts to explore what youths' participation at TA meant to them.

Through their participation and their reflections about their participation the youths' co-constructed a narrative of learning as an activist trajectory. In so doing, they articulated unique, varied, and divergent meanings of their participation that coalesced around a shared story of TA as a particular place of learning that was organized toward the goal of positive social change. Importantly, the meanings and significance of this narrative and the stories within it are multiple, social, and situated. In this paper, I focus on two key interrelated stories that are situated within the narrative of learning as an activist trajectory: 1) community building, and 2) taking a stand. The youths' stories about their participation provide insight into their learning trajectories that were situated within the broader system of relations whereby TA was involved in the production of a community of youth activists working toward a broad social movement.

**Format:** Paper presented in a Working Group Roundtable

# Activity theory as a framework for analyze of Masterclass hands on particle physics (310)

Fernanda Gomes *(University of São Paulo)*, Cristiano Mattos *(University of São Paulo)* & André Machado Rodrigues *(University of São Paulo)*

This paper presents part of our investigation about Masterclass Hands on Particle Physics, a program organized by the International Particle Physics Outreach Group. The Masterclass goal is to popularize the modern physics researches developed at CERN. The event is structured to allow the students to live as a scientist for one day. The Masterclass began with a group of scientists; they have formulated it with an activity that would allow students learn from specific Physicists' experimental work. However, from the review of students and teacher this activity can represent different meaning and impacts on students' science learning. Our broader research goal is to understand how different subjects can meet in on activity as Masterclass and how it affects on students' science learning. We based our Masterclass analysis on Activity Theory framework. This theoretical basis was helpful since Masterclass complexity is viewed as an activity considering Engeström's (2001) five Activity principles. Here we particularly focused on the multivocality principle to understand how different subjects contribute to the objective of the Masterclass in Brazil. This event brought together around 400 high school students from 18 schools from the state of São Paulo (Brazil). We video-recorded the classes and interviewed students, Physics teachers, and organization members. Taking Masterclass as our unity of analysis, we investigated the interactions between Physicists, Physics teachers, and students. All those Masterclass Activity subjects composed a community with different backgrounds, believes, traditions and practices. As a multivoiced activity, contradictions appear through different meanings about Physics and experimentation, and even about the Masterclass objective. In conclusion, we deeper understand how the multivocality constructs fuzzy activity objects, since we had the chance to contrast scientific and educational goals exposing some contradictions, such as about the meaning of experimentation to science building and learning.

**Format:** Poster

# Science learning in the everyday life of preschool children: Introducing the concept of scientific perezhivanie

Judith Gomes *(Monash University)*

Vygotsky's (1994) notion of social situation of development is one of the least investigated concepts for understanding the complexity of child development. Within the recent growing interest in researching science learning for preschool children, less is known about the relationship between play and preschool children's wonder, curiosity and emotional experiences and scientific concept development. In the 'Problem of environment', Vygotsky introduced the concept of perezhivanie, ideal and real form, and social situation of development. These concepts together begin to address how we might understand children's emotional engagement in the moments of science experience such as planting beans, imaginary role playing, nurturing plants in the children's everyday context. This paper is part of a larger project in which 36 children from a preschool setting (aged between 3.3 to 5.3 years) participated. This paper focuses on one Australian-Canadian child's everyday experiences. Video data were gathered over four weeks in playful conditions in the home and preschool context. Perezhivanie has been used as the unit of analysis. However, conceptually it doesn't go far enough to explain what is seen in the data and therefore it was necessary to advance the concept of perezhivanie. Findings suggest that the concept of a scientific perezhivanie begins to explain children's scientific conceptual development that takes into account their wonder, curiosity and imagination. This study contributes to a more subtle understating of this under-researched area of young children, and contributes to filling the gap in the area of teacher education, play pedagogy and early years science learning.

**Format:** Paper presented in a Symposium (099)

# Discussing new pathways on Vygotsky´s legacy: sense, perezhivanie and subjectivity

Fernando González Rey *(University Center of Brasilia/ University of Brasilia)*

Vygotsky may be the only author in the history of psychology whose work has been broadly discussed worldwide before many of his writings were actually published in their original language. This fact has been responsible for one-sided interpretations of his legacy that remain until today. It is curious that being at the center of a psychology which identified itself as cultural–historical, Vygotsky frequently has been discussed without considering the different historical moments of his works, in such a way that his concepts have been presented as having a definitive meaning throughout his work.  This situation has been changing over the last 15 years when new interpretations have been developed.  As a result of this process, new concepts began to be stressed, and new historical interpretations have appeared. In this paper, I will discuss how some of Vygotsky's later concepts, such as *perezhivanie*, sense and social situation of development –largely overlooked in Soviet and Western psychology – allow us to advance forward on a topic that has remained in shadow within the Soviet psychological tradition: subjectivity. These later concepts, taken together, lead us to question some of the basic principles on which the "objective status" of a Marxist psychology was defined in the Soviet period, such as social determinism, a realistic–mechanical understanding of knowledge and mental development, and the primary character of "reality" in relation to consciousness, the latter taken in Soviet times as the "Fundamental problem of Philosophy". The concepts of sense and *perezhivanie* do not allow us to conceive of internalization as a process through which psychological functions emerge and are defined. Rather, the two concepts bring back *the subject* as a central dimension in defining the impact of external influences and of relationships with others on psychical processes and psychological development. In the definition of sense and *perezhivanie*, Vygotsky appealed to *personality* in what seemed to be an attempt to integrate the two concepts into a psychological system, despite his failure to clearly define what personality meant. However, he was never able to make explicit his novel conception of a new psychological system capable of integrating the above-mentioned concepts during the last period of his working life. These concepts, taken together with his criticism of the definition of thinking as "divorced from the full vitality of life, from the motives, interests and inclinations of the thinking individual" (Vygotsky, 1987a, p. 50), have important theoretical consequences, but have received little attention within so-called cultural-historical psychology. In this paper, I intend to discuss three aspects of this emerging line in Vygotsky's psychological thinking that were either absent or insufficiently developed in Soviet psychology and which allow us to reinterpret Vygotsky´s legacy by advancing a new definition of subjectivity: (1) The relevance of symbolic processes to the definition of culture as inseparable from a new understanding of the human mind as a subjective system. (2) As a new qualitative dimension of the human psyche, subjectivity is characterized by its creative, generative and non-deterministic character. Subjectivity is defined by the unity of symbolic processes and emotions that characterize human experiences as such, whether social or individual.  (3) Individual subjective functioning is subjectively configured, with motivation as intrinsic to all psychological processes and subjective functions.  From this point of view, speech is understood as the productive activity of *a subject*, with new theoretical and methodological value and implications for the study of subjectivity.

**Format:** Paper presented in a Symposium (139)

# Play and ludic situations: their relevance to overcome learning difficulties

Fernando González Rey *(University Center of Brasilia/ University of Brasilia)*

Play and ludic situations are grounded in a child's imagination. The play world of children at home sits in contrast with the learning environments of many children at school. However, play creates the conditions which allow children to separate and explore differing modes of subjectivization, including those related to learning. Unfortunately, assimilation of learning for children with disabilities in Brazil is still focused on intellectual operations which dominate many school activities today. One of the challenges we face in research focused on children with learning difficulties is the children's complete lack of interest in school discipline knowledge. In addition, many children present a curious reaction to avoid efforts related to school tasks, even though they know how to solve particular school problems. We have found in our analyses that this reveals a negative affective position towards what is taught in schools. These affective reactions express complex subjective configurations that integrate multiple subjective senses related to the complexity of the children's lives, particularly those evoked by the incapacity of the school to generate a different social space for children where family and other systems of children's relationships are meaningfully considered. In our research, play as well as the use of tasks modeled as ludic activities, have created learning situations that have generated different children's subjective sets, which appear to permit them to advance learning tasks in ways that they cannot solve at school. The sequence that has been very productive in our research is as follows: First, the use of spontaneous play chosen by the participants with the active participation of the researcher at moments in which affective relationships with children and among children are created. In a second moment, once the play activities function well, we involve those participants who are affectively engaged in the play activities to become engaged in a new social scenario that we have designed, where children begin a new activity with the researcher who is using school tasks as ludic situations. In these scenarios, imagination becomes an important device to advance the tasks. The procedures, their theoretical implications, and the results will be discussed in depth in this presentation, making it possible to conclude that without the subjective involvement of children it is very difficult to overcome learning difficulties.

**Format:** Paper presented in a Symposium (038)

# Resource-rich approaches for learning in a Multilingual Secondary Science Classroom in Luxembourg: A teacher's point of view

Anna Gorges *(University of Luxembourg, Luxembourg)*

In the current study, I examine the ways one teacher positions her students as resourceful in the science classroom. In the multilingual country Luxembourg, more than 50% of the students speak at home language(s) different from their languages of instruction. Many teachers consider both, the languages the students bring to the classroom, which are different from the school languages, as well as their everyday trans-lingual language practices, as deficient. Furthermore, like in most western countries, in Luxembourgish schools, the main focus is on the written and spoken modes, which diminishes the potential other modes offer for meaning making. Both trends especially marginalize multilingual students, as many of them have little confidence to express themselves monolingually in the language of instruction as well as in the written and spoken mode alone. I am conducting an ethnographic study in at an alternative high school, where students who dropped out of the traditional school system get another chance to gain a school leaving certificate. In order to give the students a fair chance to succeed, the classroom teacher employs a resource rich approach to learning in order to position each student as a valuable member of the learning community. I examine a whole-group interaction between the teacher and her students in order to understand in what ways the teacher positions the students as resourceful by looking at the different strategies the teacher applies to both position herself and her students in a way that allows for a meaningful interaction which facilitates learning.

**Format:** Paper presented in a Symposium (261)

# Dialogical approaches within the cultural-historical standpoint: epistemological and methodological challenges addressing education and human development (174)

Chair: Daniel Goulart *(University Centre of Brasília/University of Brasília)*

Discussant: Anne Edwards *(University of Oxford (Emerita))*

Daniel Goulart *(University Centre of Brasília/University of Brasília)*, Fernando González Rey *(University Center of Brasilia/University of Brasilia)*, José Fernando Patiño Torres *(Federal University of Tocantins)*, Megan Adams *(Monash University)*, Liang Li *(Monash University)*, Signe Juhl Møller *(University of Copenhagen)*, Thomas Sørensen *(Aarhus University)* & Anne Edwards *(University of Oxford (Emerita))*

In raising epistemological and methodological issues of relations between research participants in different practices, we hope to foster further discussions, advancing reflexive ways to address challenges within cultural-historical standpoint. A one-sided understanding of the relationship between activity and objects has been argued to have prevailed in cultural-historical perspective that has omitted the fact that human activity occurs within complex relational contexts (González Rey, 2015). In this sense, communication and dialogue have been traditionally overlooked by this theoretical tradition, at least, until Lomov, who first considered communication not as an instrumental dimension, but as a dialogical one (González Rey, 2014). This brought several epistemological and methodological consequences to research within cultural-historical theory, such as individualistic, instrumental and natural approaches to study human processes. In this context, this symposium aims to discuss different approaches within a cultural-historical standpoint, addressing epistemological and methodological challenges to research education and human development as part of different practices. Special emphasis is given to Gonzalez Rey`s concept of subjectivity, including qualitative epistemology and constructive-interpretative methodology. We argue that participants are not mere informants, but protagonists partaking in the research process. In this sense, the quality of the relationship between the researcher and participants are fundamental and part of the creative dimension of the research. Further, we argue that such dialogical approaches foster high-quality information and relational processes contexts that address learning processes and human development. Following the presentations, Professor Anne Edwards will lead a panel discussion with comments and questions from the audience.

**Format:** Symposium

# Subjective development from a cultural-historical standpoint: articulating education and mental health care (344)

Daniel Goulart *(University Centre of Brasília/University of Brasília)*

This abstract synthesizes the ideas I intend to discuss as a dialogue paper on Ph.D. day based on my Ph.D. research in process. In such dialogue paper, I aim to discuss the idea of subjective development from a cultural-historical approach as a theoretical way to promote institutional practices capable of articulating education and mental health care. Subjective development represents a way to overcome unilateral and absolute criteria as the basis to label people within standardized and universal stages without overlooking the uniqueness of this process. The case study of Sebastiao is presented as part of my Ph.D. research in a community-based mental health service in Brazil, and it was conducted through a constructive-interpretative methodology. The research was aimed at understanding individuals within social subjective processes of the institution. The main purpose of our work was to find effective ways oriented to the transformation of "patients" into subjects of their experience. Sebastiao, who was 39 years old, had been diagnosed with paranoid schizophrenia since he was 30. He was known as one of the first users of the service with uninterrupted treatment for seven years. I argue that only through a therapeutic process based on dialogical and educational actions it was possible for him to open new social spaces and to produce new subjective productions related to life and to himself. By raising those theoretical issues, I hope to foster further discussions, advancing reflexive ways to address research in social institutions within cultural-historical perspective.

**Format:** Paper presentation on PhD Day

# Studying subjectivity in mental health services: the research as an educational process

Daniel Goulart *(University Centre of Brasília/University of Brasília)* & Fernando González Rey *(University Center of Brasilia/ University of Brasilia)*

This paper discusses the research in mental health services as an educational process, in which the emphasis on the construction of dialogical relationships is seen as a fundamental condition for the quality of information and theoretical reflections constructed throughout the process. Education is defined as a system of actions addressed at the subjective development of individuals and social groups involved in the research, by triggering new reflections, emotions, and reactions among them. This discussion, based on the constructive-interpretative methodology proposed by González Rey, is underpinned by the results of research conducted over three years at a mental health service in the Federal District of Brazil, where both service users and service workers were participants. Throughout the fieldwork, the researcher made extensive use of conversational systems sessions, in which participants and researcher involved each other in different moments of the daily institutional routine. In this sense, there was no external objectivity and neutrality of the researcher to be respected, which expresses the subversive nature of this type of research, extrapolating the distinctive normative rules that underlie the social fabric of this context. We will address the importance of building the social scenario of research, presenting the assumption that the fieldwork not only responds to the objective formulated for the research, but also is a fundamental dimension of the design of the studied object. Overall, this proposal has as its fundamental pillar the emergence of the researcher and the participants as subjects of the investigative process, in a trajectory with no gaps between empirical field, theoretical production and professional action.

**Format:** Paper presented in a Symposium (174)

# Researching subjectivity within community mental health services: contributions of constructive-interpretative methodology

Daniel Goulart *(University Centre of Brasília/University of Brasília)*

This paper addresses some challenges in researching subjectivity within community mental health services, discussing some contributions of González Rey's constructive-interpretative methodology. This methodology generates information not through traditional inductive/deductive inference, but through the gradual construction of hypotheses from the convergence of emergent interpretive indicators. The reflections of the researcher are fundamental in this process because they allow him/her to organise the apparently diverse indicators into a meaningful and specific set of theoretical ideas related to the studied object. This recursive process between indicators and hypotheses, together with the theoretical constructs that accompany it, forms the theoretical model of the problem on which the research focuses. I discuss methodological issues involved in a research study conducted over two years at a mental health service in the Federal District of Brazil, in which both service users and service workers were participants. Firstly, I discuss the importance of the construction of the social "scenario of research", defined by the assumption that the fieldwork is not only based on the objectives formulated for the research, but also is a fundamental dimension of the design of the studied object. Secondly, I present part of the process of construction of information done during the research. From this perspective, the theory is not a set of a priori concepts to be applied to the "data analysis", but an intellectual tool to help the researcher to produce a theoretical model as the result of his/her constructive process upon the information raised during the research. In this sense, this perspective opens new methodological and epistemological possibilities to legitimise a type of production of knowledge that transcends "empirical evidence" and induction, defending the theoretical nature of the production of scientific knowledge. In this trajectory, there are no gaps between empirical field and theoretical production.

**Format:** Paper presented in a Symposium (083)

# Exploring explorative play, through the lenses of the practitioners

Liv Torunn Grindheim *(Western Norway University of Applied Science)*

There is a growing political interest in early childhood education in Norway. From being a desired option for few, there is now kindergartens available for most of the Norwegian children. In some areas, there are even competitions among the owners of kindergartens to attract parents. In addition, early interventions to provide for a better future, point at early childhood education as an arena for mending a variety of contemporary problem. Politicians and parents are thereby strong agents to define the content and methods of early childhood education. Research depicts that practitioner's approaches to education are often not conceptualized and constituted, and are thereby easily colonialized by strong economic and politic intensives. The Nordic kindergartens have a historical tradition to emphasize play in kindergarten's curriculum and practices. Play is also regarded as the most important source for children's learning and development (Vygotsky, 1967). This study, therefore, takes departure from the practitioner's point of view, by their videos of children in playing activities which they find of specific interest, followed by conversations of why they find this particular activity of interest. This material is to be analyzed drawing on Hedegaard's (2009) concepts of development as individual, institutional and societal processes, seeking to understand what the practitioners see as valuable activities among children. The aim is to straighten their voices in the choir of agents that constitute the content and methods of early childhood education in Norway. My paper can be associated with the sub-theme transforming agency.

**Format:** Paper presented in a symposium (038)

# Body representation in a relationship infidelity site (156)

Talitha Guenka *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Edna Maria Peters Kahhale *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Mae Nascimiento *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Mariangela Donice *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Maria Luiza Pigini Santiago Pereira *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Lesle Maciel *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Manuela Nacamdumbo *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

This work aims to identify the body representations posted on social networking sites to reveal how men and women expose their bodies and what body parts are valued. The data collected on 317 men and 315 women's profiles of an infidelity site. Initial results indicate that the photos are crisp and clear in most profiles (92%), allowing to identify a person. Blurred and/or dark photos are meant to camouflage themselves; but only 4.7% Blurred, dark (3.4%). In the open profile photos, women post more photos (91%) than men (59%). Men expose more in the private gallery where there is a predominance of nudity with genital exposure. On the quality of photos, women profiles follow hegemonic patterns: explore sensuality, smile, relaxed. The photos of men are neutral, stating that men are not expecting sensuality in a heteronormative official website. There are no significant differences between men and women whose body parts are presented in a photo. The pictures show aspects for assessing the body's way as revealed in everyday life, i.e., the social body: face and torso, allowing identify who the person is. As for the clothing that appears in the photos, most, regardless of gender, is the social body, which is indicative of the dress code for this situation. In conclusion, the body, which appears in photos posted, playing a hegemonic pattern of male and female.

**Format:** Poster

# Expanding units of analysis: Steps toward fourth generation activity theory (219)

Chair: David Guile *(UCL - Institute of Education)*

David Guile *(UCL - Institute of Education)*, Yrjö Engeström *(University of Helsinki)*, Annalisa Sannino *(University of Helsinki)*, Clay Spinuzzi *(University of Texas at Austin)*, Silvia Ivaldi *(Università Cattolica, Milano)* & Giuseppe Scaratti *(Università Cattolica, Milano)*

Third-generation activity theory has treated activity systems as reasonably well-bounded, although interlocking and networked, structure units. However, in new modes of production which have emerged during the last twenty years, for example, social production and peer production, the boundaries and structures of activity systems seem to fade away. Processes, therefore, become simultaneous, multidirectional, and often reciprocal, and movements of information create textures that are constantly changing. In light of these developments, the symposium argues that Cultural-Historical Activity Theory needs a fourth generation of activity theory to analyse the above trend in the organisation of work. The symposium tackles the above challenge by posing the following question – what is the appropriate unit of analysis (UoI) for fourth generation activity theory? - in the following ways. Two papers use the concept of 'coworking' (Spinuzzi, 2012) to address manifestation of constantly changing textures and the challenges they set for formulating a new fourth generation UoI. One paper introduces a new unit of analysis – "culturally more advanced central activity" – and explores empirically the challenges associated with researching with this new UoI (Engeström, 2015). The final paper offers a hybrid perspective that engages with coworking and culturally more advanced forms of central activity.

**Format:** Symposium

# Developing high-skill local ecosystems: issues for fourth generation activity systems

David Guile *(UCL - Institute of Education)*

The fourth paper – "Developing high-skill local ecosystems: issues for fourth generation activity systems" – from David Guile engages with variants of coworking and culturally more advanced central activity concepts, though from a radically starting point. Guile argues that successive UK government policies for skill development have been framed in terms of increasing the supply-side provision of skills to address an assumed high-, but unmet, employer demand. This policy has had mixed success: higher volumes of learners with higher qualifications, though not necessarily high-level, or even, employment. Drawing on work from colleagues (Spours and Hodgson, 2014) on the emergence of high-skill local ecosystems as an attempt to address the above supply-demand in-balance through education-employer configuration, Guile argues that such ecosystems are an example of a culturally more advanced central activity; but one that is based on a combination of co-configured capitalist and social production. In the case of the former, large-scale employers are working with Further Education Colleges to co-configure vocational programmes to address their skill needs; and, in the case of the latter, colleges are working with Small and Medium Size Enterprises to design vocational programmes to support the skill of coworking as an entry to freelance work. Guile argues that: (i) high-skill regional ecosystems are therefore characterized by a hybrid object of activity; (ii) the challenge is to formulate a unit of analysis to analyse this hybridity; and (iii) the outcome of this challenge will be a contribution to the development of fourth generation activity theory.

**Format:** Paper presented in a Symposium (219)

# The reconstruction of 'Parental Capital' in migration. A network approach

Mariette de Haan *(Utrecht University),* Micha de Winter *(Utrecht University)*

In this paper, we are showing how the reconstruction of new 'cultural capital' is closely intertwined with the specific configurations of immigrant parent's networks. Particular networked configurations create specific contact zones that impact upon the way parents are able to learn about parenting in the new country. Drawing upon a vision of learning as networked (Jones & Steeples, 2002; Ünlüsoy, et al., 2013; De Haan, e.a., 2014) we argue that these networks create particular challenges and opportunities for the formation of new knowledge and information about parenting. In total 25 in-depth ego network interviews were administered with a group of Moroccan mothers who are all active in migrant grass-root organizations but differed in educational level, professional affiliation and years of residence in the Netherlands. Discourse analyses were combined with a quantitative data analyses. While the quantitative network analyses focused on the structural and compositional characteristics of the networks, the discourse analyses focused in particular on their strategies of use. Questions for this analyses were: "When and how do mothers consult others with regard to parenting?" and "How can we compare and understand the different kinds of information exchange in the different clusters in their networks?" and "How do parents deal with and make use of the specific configuration of their networks in reconstructing their parental capital?". In our definition of social network, we are drawing up Bourdieu's notion of social capital who defines social capital as the "contacts and group memberships which, through the accumulation of exchanges, obligations and shared identities, provide actual or potential support and access to valued resources" (1993: 143). In addition to this, we assume, as Levitt & Glick Schiller (2004) have argued, that these networks of relationships, especially in the case of immigrants, are not confined to national boundaries, and can take multiple different forms depending on the networking practices of immigrants. Contrary to the commonly held notion that parents either live in closed ethnically based networks or have entered new social spaces while giving up the bonds with their traditional communities, the results show that parents are able to do both and apply diverse strategies to live in between and make use of multiple worlds for their learning. Being in touch with a more traditionally oriented community does not automatically imply that knowledge building practices concur with the values and practices of that community. While some experience the pressure of diversity as a burden, others make actively use of the diversity to select, reject and combine multiple influences. The study shows how parents as learners make differently use of the contradictions and tensions in their social environment for their learning and it reveals how particular networked communities facilitate these learning processes. From a practical and social policy perspective, the paper contributes to community-based perspectives of parenting against the backdrop of the rise of more clinical/therapeutic or behavioral approaches in this domain. It foregrounds the learning processes of immigrant parents as the mayor point of departure for any professionally lead program or training against approaches that start from particular curricula based on effective parenting.

**Format:** Paper presented in a Symposium (216)

# The challenges of vocational training at the workplace in automated production processes in Germany (050)

Monika Hackel *(Bitte wählen)*

Production processes in Germany are undergoing increasing automation. This is bringing changes for skilled work in its wake, and these changes need to be addressed in terms of work organisation or via Training. The present paper investigates effects on skilled work by simulation and animation and in laser manufacture and light construction on the basis of various case studies from the "Diffusion of new technologies" (DifTech) project. It demonstrates how know-how from qualified skilled work contributes to the further development of these technologies whilst at the same time being altered by automation. This is a challenge for the future development of vocational education in Germany which is very close to the workplace. The project follows the activity theory approach put forward by Engeström. The necessity of integrating the expertise of qualified skilled work in the further development of automated and digitalised work processes in cross-company networks is, however, also illustrated on the basis of the case studies.

**Format:** Paper presented in a Paper Session

# Using video to support teachers' learning: A systematic literature review to support clinical supervision (447)

Christine Hamel *(Université Laval)*, Anabelle Viau-Guay *(Université Laval)*, Pier-Ann Boutin *(Université Laval)*, Amélie Desmeules *(Université Laval)* & Josée-Anne Gouin *(Université Laval)*

Given the effort invested in workplace professional development programs, professional learning, as it takes place in context, should be examined closely to help inform the design of training mechanisms that will truly contribute to professional development. In particular, given the interest and growth in the use of video for the development of reflective practice among professionals, it appears relevant to further examine video-based mechanisms. Teacher education constitutes a fertile ground in this regard. This article thus presents a systematic review of the literature on the use of video for the professional development of teachers, particularly regarding their ability to reflect on their own teaching practices. To this end, 89 articles published in the last 15 years were analyzed to bring out the participants' learning, in terms of both the learning process itself and its effects. Our findings show that video-based training mechanisms lead to significant learning, at least in the medium term, but that the collaborative dimension of learning could be further explored. Ways to support the professional development of clinical supervisors will be submitted for discussion.

**Format:** Paper presented in a WGRT

# Towards psychology in terms of drama: Advancing Vygotsky's legacy through theoretical and empirical research dialogue (127)

Chair (part 1): Marie Hammer *(Monash University)*
Chair (part 2): Nikolai Veresov *(Monash University)*

Discussants (part 1): Junqian Ma *(Monash University)*, Victoria Minson *(Monash University)* & Fabiana M.B. Nasciutti *(State University of Campinas - UNICAMP)*
Discussants (part 2): Mohamed Elhammoumi *(Department of Psychology - United Arab Emirates University - UAE)*, Manolis Dafermos *(University of Crete)* & Nikolai Veresov *(Monash University)*s

Marie Hammer *(Monash University)*, Nikolai Veresov *(Monash University)*, Manolis Dafermos *(University of Crete)*, Mohamed Elhammoumi *(Department of Psychology - United Arab Emirates University - UAE)*, Junqian Ma *(Monash University)*, Victoria Minson *(Monash University)* & Fabiana M.B. Nasciutti *(State University of Campinas - UNICAMP)*

Vygotsky's unfinished project of building a psychology in terms of drama remains a challenging task and requires collaborative efforts of theoretical and empirical research. This symposium's aim is to initiate a dialogue on theoretical and empirical research to show possible ways of how they can inform and support each other in developing new theoretical tools and new empirical research projects. The theoretical framework which unifies these two areas of research is an interrelated system of concepts which includes (1) drama; (2) perezhivanie; (3) sociocultural genesis of the human mind and (4) dialectics.

Part 1 of the symposium is a dialogue of theoretical and methodological perspectives created around foundational theoretical concepts informing contemporary advances of key concepts of cultural-historical theory - drama, perezhivanie, creativity and dialectics of development.

Part 2 is a dialogue of empirical research informed by theoretical tools of analysis. There is a consensus that human development is not a linear, but a complex and contradictory process; however, there is still much work to do to explore drama and crisis as an essential moving force. This part of a symposium aims to present findings from three investigations in different social contexts, considering drama as a main analytical tool. Instead of a static perspective, we aim to examine social contexts in terms of movement and collisions, through a progressive viewpoint.
Keywords: cultural-historical theory, dialectics, childhood, development, drama, perezhivanie, crises, professional development, transition, assessment practices.

**Format:** Symposium

# Culture and education in a box: artefacts as the core of curriculum (327)

Marie Hammer *(Monash University)*

Pestalozzi succinctly highlights the importance of the child's surroundings as the initiator of learning.
This paper reports a project that explores Intercultural communication and new forms of being by combining cultural-historical theory with a tangible representation of culturally relevant artefacts, it is the aim of this project to build a relevant and contextually grounded curriculum that provides meaningful engagement and learning for Australian Indigenous children.

The use of culturally relevant tools as the provocation of learning is the key to ensuring that the learning experience is firmly linked to the children's cultural and social context.

Social competence as a goal for education encompasses a number of skills, such as literacy; numeracy; self-control. The concept of social competence refers to not just the social moirés of interactions but also the cultural tools and the skills of negotiation of the social structures.

It is this emphasis on cultural tools that has been the springboard for the project to develop relevant tools using artefacts as the impetus for learning and understanding and the vehicle for skill development necessary for social competence underpinned by dialogue and the co-construction of knowledge.

The project seeks to consult with the relevant Traditional Owners of the land to identify and incorporate significant artefacts that will become the basis of the education curriculum. It is anticipated that each curriculum will be individual to a specific community and will become the property of that community developing culturally appropriate and culturally approved materials through collaborative partnerships.

**Format:** Paper presented in a Working Group Roundtable

# Children's scientific imagining and their engagement in everyday family activities

Yijun Hao *(Monash University)*

Traditionally, children's imagination in play is depicted as a fantasy world created through play; however, based on Vygotsky's (1966) concept of play, it is a kind of imaginary situation through which children are trying to make conscious their awareness of reality and to act out the rules in their particular society. This study seeks to examine how Chinese families provide the conditions for children's scientific imagining through a wholeness approach from a cultural-historical perspective. The interactive and dialectic relations between children's scientific imagining and their everyday real life experiences across different family settings were examined, such as preparing to go to kindergarten, cycling in the park and out-door playing after snowing. Cultural-historical activity traditions are positioned as the theoretical framework of this study including the theorization of play, imagination, and the dialectic between everyday and scientific concepts. Two middle-class families in Mainland China with a 3-year child each (including a boy and a girl) participated in this study. A total 52.32 hours of data were collected through digital video observations and parent interviews over two observation periods (with an interval of ten months). This study found that children's participation in various everyday family settings worked as a whole to form their scientific imagining. Dialectically, with the help of parents' supported scientific imagining especially through family joint imaginary play, children showed their potential to make conscious everyday phenomena. It is argued that scientific imagining must be examined and discussed as a dialectical relation to children's everyday real life experiences.

**Format:** Paper presented in a Symposium (099)

# A-B-C or أ ب ت (443)

Maha Hassoun *(Université Laval)* & Hélène Makdissi *(Université Laval)*

Many scholars have demonstrated that the child's representations of the alphabetic system depend on a long developmental path and start well before the first step in school (Ferreiro, 2000; Sirois, Boisclair & Makdissi, 2008). However, the child's constructions in a consonantal writing system have not been documented.

The aim of this study is to describe on the one hand the structuration of invented spelling for children who are exposed to two writing systems (consonant/arabic and alphabetic/french) and, on the other hand, the relation between this two systems.

Sixty lebanese children participated to this study (4 to 6 years-old). The children were selected from three public school in North Lebanon.

The children has been asked to write, as they think, eight words that contains different grapho-phonemic segmentations.

The results show that there is no significant differences between writing structuration at 4 and 5 years-old. It is at 6 years-old that differences became significant between those two different writing systems. The results also indicate significant differences between age supporting a developmental pathway. Moreover, the results sustain a developmental hypothesis of a unique inductive structuration in both systems till the beginning of school when children begin their formal instruction into writing.

**Format:** Paper

# Facilitating transcultural flows through embodied language performance (241)

John Haught *(Wright State University)*

In this examination of Chinese children using drama to learn English, I argue that additional language learners are best understood as performing their understanding within their target language interactions. Language performance within discourse serves as a means of mediation between people involved in an activity that is always situated within specific sociocultural and institutional contexts. Pennycook (2007, 2010) investigated the varied appropriations and transformations of language and culture within transcultural contexts. He maintains his argument that language is best examined as an emergent act and is created through language performance. Rather than being fixed and prescribed, language and meaning are mediated during the very act of discourse and they are always created locally. This study will examine how 10 years old Chinese language learners created transcultural flows through language performance. Transcultural flows are essentially a dialectical synthesis between language practice and local practice, mutually informing and transforming both. As the actors co-construct meaning in their target language there occurs a flow of ideas, identities, and new meanings that arise from each individuals' historical and sociocultural background. The act of language performance is a local practice taking place within a highly contextual setting. As the term flow suggests, these interactions are fluid, continuous, and emerging within the localized drama worlds being co-created by the actors. Drama activities provide the meditational affordances that facilitate the creation of these flows and allow us to see this happening in actual language performance.

**Format:** Paper presented in a Working Group Roundtable

# Imagination and emotion in children's play: A cultural-historical approach

Mariane Hedegaard *(Copenhagen University)*

Interpretations of Vygotsky's texts have in general focused on the intellectual aspects of children's development, including his texts about play. This article presents a reinterpretation of Vygotsky's theory of play and draws on this theory of art to include emotions as an important part of children's play. I will argue that in play children's motives, emotions and feelings are connected vitally with the development of imagination, fantasy and creativity. Four main points are put forward: A) In Vygotsky's (1967) theory of play, children's imagination transforms the relations between objects and meanings and between actions and meanings. It is important to include children's emotions and feelings in these analyses; B) Emotions and feelings may be included by including the way imagination transforms the tensions that children expressed in play between different motive orientations towards the play theme; C) The relations between events and feelings may become transformed through children's play so that emotions and feeling become released from events the same way that meaning in play are released from objects, actions, and D) Changes in the way children play through their life course has to be seen as an interaction between the institutional conditions and traditions and children's motive orientation. Therefore, the way emotions and feelings become transformed in relation to events changes through children's different life periods. These points are illustrated by drawing upon observation of children's play activity in different age periods and in different contexts.

**Format:** Paper presented in a symposium (038)

# When daycare professionals' values for transition to school do not align with the educational demands from society and school: the temporal aspects of common knowledge

Mariane Hedegaard *(Copenhagen University)*

Preparing children for school is seen as a central practice demand for daycare professionals during children's last year in kindergarten. This demand creates challenges for practitioners and practice development. In the research presented here, the aim was to study how changes in demands for preparing children for school, conflict with what matters for professionals in kindergarten and the values underpinning good practice, and how this difference may be resolved. The study took the form of a practice developing research, and the intervention is analysed in terms of building common knowledge and exercising relational expertise and agency among daycare practitioners, the researchers and school practitioners. The study contributes to shaping the relational concepts by recognising the temporal dimension of using common knowledge as children are prepared for the transition to school.

**Format:** Paper presented in a Symposium (029)

# Young children's funds of identity: Zoe's learning, knowledge and agency

Helen Hedges *(University of Auckland, New Zealand)*

Children's formation of multiple identities as learners, communicators and citizens is a key outcome of their early years. Identity was once the domain of psychology; now it is argued as a vital link between learning and sociocultural context (Sfard & Prusak, 2005). Therefore, considerations of sociocultural theories and identity have appeared in the literature. From a sociocultural perspective, children learn through active and intent observation and participation in experiences they are exposed to in their families and communities (Paradise & Rogoff, 2009). Through these experiences, children learn funds of knowledge (González, Moll, & Amanti, 2005). Recently, funds of knowledge have become argued as a source for funds of identity when people use these actively and agentically to explore and define themselves (Esteban-Guitart, 2016; Esteban-Guitart & Moll, 2013). Similarly, children may seek to define themselves and related identities through showing adults what is important to them, and interests them, related to their life experience in their families and communities. Bruner (1996) argued that people construct identity through narratives. This paper extends the ideas of Bruner (1996) and Esteban-Guitart (2016) and explores them in relation to the potential identity construction of children aged less than five years. These young children may tell stories about their lives in their families and communities, or represent these stories in various ways, drawing on and using artefacts as well as their increasing verbal capacities. The paper draws on data generated from a two-year qualitative research project undertaken in Aotearoa New Zealand (Hedges & Cooper, 2014). The project was a collaboration between academic and teacher researchers and included teachers, families and children as participants. This paper will focus on one 4-year-old child, Zoe. Data used in this paper includes selected excerpts of video footage of teachers and children engaging in activities and conversations during everyday teaching and learning experiences, the transcript of an interview between teachers, Zoe, and her parents in the family home, and pedagogical documentation of Zoe's learning in the early childhood setting. Ways funds of knowledge were apparent in Zoe's interests, and ways she used her agency to select, express and represent these in the early childhood setting are identified. The ways that these findings, collectively, formed sources of funds of identity are explored. Specifically, Zoe's funds of knowledge will be used to argue and exemplify ways she actively sought to develop and understand her growing identities as a learner, communicator, member of wider family and cultural groups, and as a future, responsible citizen. The paper provides evidence that age is not a marker for capability in terms of ways children might perceive their future selves. It further argues that funds of identity are a useful concept for teachers to consider in their work in making decisions about which of children's interests might be highlighted and engaged with in early childhood curriculum in order to work with children's learning, knowledge and agency in ways that matter to children's identity development.

**Format:** Paper presented in a Symposium (037)

# Conceptualizing a professional learning network through the lenses of communities of practice and activity theory

Gyeong Mi Heo *(McGill University),* Alain Breuleux *(McGill University)*

This presentation provides an overview of one of the projects in the PRACTIS team: Creating, Computing, and Collaborating in Mathematics (CCC-M), examining how it can be described through the combined lenses of the communities of practice framework and cultural-historical activity theory. This paper serves to: (a) Document the evolving processes of a professional learning network (PLN), which aims at enhancing the capacity of teachers and students for integrating technology into teaching and learning and to improve student success in mathematics, with a focus on the transition from elementary to secondary school, as the context of a research-practice partnership project (b) Characterize two different communities (i.e., research and teaching communities) in the PLN in terms of "communities of practice (CoP)" (e.g., Joint enterprise, mutual engagement, and shared repertoire) (Wenger, 1998) and in terms of "Activity Theory framework" (Engeström, 1987). (c) Conceptualize the PLN by making links between the CoP conceptual framework and Activity theory framework.

**Format:** Paper presented in a Symposium (340)

# Dialogic withs in the assemblage of face-to-face interactions

Julie Hengst *(University of Illinois)*

Hengst first sketches out the theoretical frameworks for expanding Goffman's notion of withs to the traversals that pairs and groups trace across time, space, activities, and settings. Theoretically, attending to such traversals is central to any account of the historical dialogic processes necessary to understand transposition of indexical grounds (Hanks, 1990), semiotic remediation (Prior & Hengst, 2010), reported speech (Voloshinov, 1973), conversational narratives (Ochs & Capps, 2001), handing practices (Scollon, 2001), shadow conversations (Irvine, 1996), and a host of other communicative practices. In this paper, she focuses on trajectories of proximal and distal withs that are assembled and laminated (Latour, 1999; Prior & Schaffner, 2011) in face-to-face interactions and that interlocutors align with and around (the moment to moment work "to meet whatever occurs by sustaining or changing footing" [Goffman, 1981 p. 325]). In each moment then, a durable dimension of activity is reading and constructing withs (not just other object-oriented activities). Within social situations and among gatherings, people are fluidly navigating layers of overlapping alignments within production formats, participation frameworks, and interaction orders. Attending to the dialogic effects of chains of action and chains of semiotics requires close attention to the historical depths of these temporal interaction orders, to the historically situated sense that infuses any interaction (see Hengst, 2010). Analytically then, we should attend to the multiple temporal cycles/scales (Lemke, 2000; Scollon and Scollon, 2004) implicated in the dialogic itineraries of expanded withs. In the turn-taking time frame of face-to-face interactions, we can trace the immediate and shifting alignments among people as they negotiate talk. At the scale of repeated interactions across hours, days, weeks and years, we can trace the evolving social relations that people build over time and carry with them from one encounter to the next. Such temporally durable withs provide a rich history of interactions that can be drawn on in moments of talk. Finally, focusing on broader/longer cultural frames provides ways of tracing culturally recognized and valued (whether positively or negatively) social relationships and identities—e.g., spouses, parent-child; best friends; co-workers; teacher-student; jailer-prisoner; boss-employee; personal aideperson with a disability. Durable withs then are resources for (re)assemblage of social relations, action, and meaning-making in face-to-face interactions. Hengst illustrates this analytic approach through published examples from situated studies of everyday communicative practices of durable withs where one participant has been diagnosed with a communication disorder: on collaborative referencing (Hengst, 2003, 2006); on narrating lives (Hengst, 2010), and on communicative and activity brokering for adults with cerebral palsy (Hengst et al., 2016).

**Format:** Paper presented in a Symposium (292)

# Unanchoring activity: Withs as a unit of analysis for tracing distributed communication and action across spatial-temporal scales and socio-material settings (292)

Chair: Julie Hengst *(University of Illinois)*

Julie Hengst *(University of Illinois)*, Paul Prior *(University of Illinois at Urbana-Champaign)*, Kevin Roozen *(University of Central Florida)* & Martha Sherrill *(University of Illinois at Urbana-Champaign)*

This symposium tackles the problem of tracing distributed communication and action across temporal-spatial scales and socio-material settings. Extending Goffman's notion of withs (an interaction order formed by a mobile pair or group, as opposed to singles) and critiquing accounts of activity systems anchored in typified conjunctions of time, space, people, and social orders, we present analyses that explore how withs traverse time, place, activity, and setting. The first paper, "Dialogic withs in the assemblage of face-to-face interactions", offers a theoretical framework (integrating dialogic semiotics, CHAT, ANT, and research on communicative practices) to extend withs to the interactional chains a pair or group trace across time, space, and activities. It illustrates this framework through the author's research on collaborative referencing, communicative brokering, and narrative. The second paper, "A case study of writing withs in biology: Tracing laminated, dispersed, and diverse networks of semiotic remediation in scientific authorship", analyzes withs in the literate practices of a post-doctoral biologist's authorship networks (formal and informal, disciplinary and personal). The third paper, "Acting with animals: Tracing human-animal withs in a clinical setting", analyzes Animal Assisted Therapy sessions at an in-patient rehabilitation center. The final paper, "Acting with drawings: Tracing semiotic practices across laminated discourse itineraries", considers human-tool withs, analyzing how an undergraduate student develops and uses drawing practices across diverse settings (daily life, fan fiction, engineering, play, etc.). Ultimately, we suggest that seeing withs as historical highlights how durable dimensions of life (e.g., personal relationships) must be assembled in situated functional systems.

**Format:** Symposium

# A proposal for research on children's own projects (323)

Jaakko Hilppö *(Northwestern University)*

Projects have been recently suggested as a new addition to the theoretical vocabulary of cultural-historical activity theory (e.g., Blunden, 2012). The central idea behind the notion is that 'a project', as an aggregate concept of human action, resonates both with the theoretical foundations of CHAT as well as with how people use it in everyday parlance. While the affordances and constraints of the concept have been explored, these explorations have thus far centered around adult activities or projects taking place in formal education (e.g., Kratsov & Kratsova, 2012). In other words, the power of the concept has not been put to play in research on children, their everyday life across contexts and learning.

This poster proposes a research plan to investigate the way in which the concept of a project could be used to understand children's everyday lives and learning. Through a two-phase co-participatory research design, the aim is to focus on child-initiated and child-lead activities, or projects, sustained over time which focuses on a particular idea or the production of a certain material artifact. By studying these projects, this study hopes to explore the conceptual terrain between actions and activities with the notion of 'projects'. Furthermore, though a dialogue with research done under the broad family of the learning sciences the study also hopes to contribute with new insights on motivation and self-regulated learning processes and answers to recent CHAT based critiques (e.g., Martin & McLellan, 2008; Nissen & Solgaard Sørensen, 2016).

**Format:** Poster

# Opening new lines: Perspectives into interest, its development and learning (325)

Chair: Jaakko Hilppö *(Northwestern University)*

Jaakko Hilppö *(Northwestern University)*, Kay Ramey *(Northwestern University)*, Flavio Azevedo *(University of Texas at Austin)*, Ty Hollett *(Penn State University)* & Kevin Leander *(University of Illinois)*

This symposium brings together four converging perspectives on interest, interest-driven learning and interest development. Building on a common set of theoretical sources from practice and cultural-historical activity theory as well as recent work in anthropology (Azevedo, 2011; Engeström, 2009; Ingold, 2011), the contributions together seek to dialogue and contrast with the dominant cognitive take on interest. The standard theory (Hidi & Renninger, 2006) regards interest and its development mostly as a psychological disposition to engage with given topic and which, through this engagement, becomes progressively more independent of supportive conditions of its pursue. In contrast, the authors of this symposium highlight the complex social, cultural, material and affective entanglements of interest and how they are constituted and develop in lived practice.

Empirically the contributions demonstrate how research on interest can be successfully conducted in and across different settings. Azevedo's work draws on in-depth case studies on STEAM engagement from after-school and hobby astronomer's practices. Hollett's contribution is based on his recent inquiries into skateboarding and video/photography activities. Lastly, both Hilppö and Ramey will present their respective work from an innovative makerspace and STEAM learning infrastructure (called FUSE) implemented as an in-school science course.

Interest can be a powerful motivator for learning and, vice versa, learning also can influence motivation and fuel interest. Given, for example, the enduring global problems of motivation experienced in formal education contexts the contributions of this symposium represent important conceptual and empirical advances in unpacking these complex issues.

**Format:** Symposium

# Productive deviations: managing the tensions of interest-driven learning in formal education

Jaakko Hilppö *(Northwestern University)*

Fostering interest and interest-driven learning is often raised as a key solution to the motivational issues students and educators face in formal education. While this trust is not misplaced, interest-driven learning is, however, a troublesome object for the activity system of formal education (e.g., Anderhag et al., 2016). A central characteristic of interest-driven learning, its potential to lead the learner to new and sometimes unexpected directions. In a system that disincentives any excursions this feature creates potential tension between the students' interests and the designed learning pathway of the curriculum. This study focuses on cases where this tension is successfully managed. The data for the study comes from an ethnographic data corpus of seven different FUSE Studios during 2014-2015 in a large midwestern school district in the Unites States. FUSE is an alternative learning infrastructure (e.g., Stevens et al., 2016) where students solve series of STEAM topic challenges that they have chosen to work on as part of their normal school day. While interest-driven learning takes place also within the challenge structure of FUSE, this study will focus on cases where students follow (and are allowed to follow) their emerging interests beyond the FUSE design and what students learn in the process of doing so. Building on socio-cultural and activity theory perspectives (e.g., Engeström, 2009), we conceptualize these excursions as productive deviations, and argue that they represent pivotal cases on managing the tension between students' interests-in-motion and the formal learning structure. Our interactional analysis (e.g., Jordan & Henderson, 1995) has thus far uncovered several cases of productive deviations. Our findings show that the deviations dominantly focused on creating new artifacts, like computer games, 3D printed finger skateboard ramps or emoji pillows. This creation process required solving relatively complex design or production problems on the part of the students. Furthermore, the students also brought new tools and resources to FUSE to help in the process, and step-by-step learned to use them. In all, we believe that the concept of productive deviations, and our analysis of the learning that takes place during them, importantly highlights how interest-driven learning can successfully live with formal education and the agency the students in creating these learning opportunities.

**Format:** Paper presented in a Symposium (325)

# Development of authoring and agency in early childhood through play (345)

Pi-Chun Grace Ho *(The Graduate Center, City University of New York)*

Framed in a cultural-historical theory, dialogic approach, and transformative activist stance, I reframe play as a process of authoring that fuels children's passion for being agentive actors in the world and their own lives. This approach addresses how children position themselves in trying out different play roles in the world they themselves co-create with others.

This qualitative study was conducted in a naturalistic setting where dimensions of interaction, authoring processes, and positionality were observed and analyzed through an ethnographic lens focuses on authoring themes. Four themes emerged from the qualitative analysis of the data: (1) initiating/setting intention in which children began a play scenario and showed the desire and intention to pursue a role; (2) negotiating/making decision in which children constructed boundaries and negotiated their stance and space with others, that is, how children began to differentiate self-other relationships; (3) acknowledging/showing attention in which children established a standpoint and position collaboratively yet from an individually unique stance; (4) claiming/exercising authority in which children showed an active dialogic understanding of a shared goal, and exercised authority by claiming a space or position. The patterns of interaction among these four themes reveal the complex journey children take in the process of authoring their identity.

This study suggests that play creates the space of authoring in which children can exercise agency in co-creating their world and themselves, where they can re-experience and negotiate their possible selves within possible worlds in relation to others.

**Format:** Poster

# Finding a Line: Affective atmospheres in skateboard sessions

Ty Hollett *(Penn State University)*

Learning scientists exploring the relationship between interest and learning have developed nuanced accounts of interest-based participation. Azevedo (2011, 2013) has advanced lines of practice theory, arguing that interest emerges through the entanglement of preferences and conditions of practice. Central to this theory is the importance of multiple sites/communities of practice, especially in terms of how learners engage in interest-driven, technical disciplines. Still, there is continued need to understand how learners "forge connections among such places" (Azevedo, 2013, p. 503). This emphasis on forging connections signifies a shift from tracing locations of learning and toward pathways that lead to those sites. Adopting a mobilities perspective, Engeström has explored the importance of the "lines" (Ingold, 2007) that create connections between sites. These lines, he writes, foster "swarm-like patterns of mobility" that can "pop up in unexpected locations at unexpected times and expand very rapidly. They also seem to be extinguished from time to time, yet they reappear and flare up again" (p. 2009). These wildfire activities provide transformative learning opportunities that are "built into the very operating principles and everyday social textures of these activities" (p. 5).

This paper questions the relationships between interest, mobility, and (connections among) places of learning. Drawing on a twelve-week study of youth skateboarders and the interest-driven practices in which they engage, this paper offers affective atmospheres (Anderson, 2009) as one means to understand how learners forge connections among sites. Affective atmospheres, Anderson (2009) writes, have a "spatial form--diffusion within a sphere." They are generated by bodies – of multiple types – affecting one another as some form of 'envelopment' is produced" (p. 80). Affective atmospheres serve as one way forward in coming to understand--and feel--how learners "fuse together" sites for learning. How do learners become enveloped in places of learning? And how do those spaces diffuse and re-form elsewhere? Data include approximately forty hours of videotaped activity of skateboarders and the photographers/videographers with which they partner at a skate park/camp in the northeastern United States. Inspired by innovations in mobile methods, especially its focus on corporeal movement of bodies, I sought to move with skaters, especially as they generated "lines" for themselves, or series of individual tricks across the landscape. Analytically, I attuned myself the production of a skate "session" or the coming together of numerous skaters to observe and cheer on others, as well as to test out their own tricks or lines.

**Format:** Paper presented in a Symposium (325)

# Critical-collaborative research applied in an inclusive classroom

Márcia Honora *(Federal University of Sao Paulo (UNIFESP, Brazil))*

Following international guidelines, public policies for inclusive education in Brazil indicate that schools should be prepared to enroll every student, which means providing for the inclusion of students with specific educational needs in regular classrooms, along with students perceived as non-disabled or with no specific need. From the data collected in the Primary Education Census in 2012, it could be observed that almost 76% of disabled students were attending regular schools. Thus, it was possible to realize that the inclusion process is increasingly becoming a reality in Brazil, and also that disabled students are leaving the few existing special schools and enrolling in regular schools. However, enrollment alone is not enough and the numbers do not show the difficulties that disabled students, teachers, families and the overall school staff have faced with the emergence of inclusive education. The paradigm of Inclusive Education has caused changes, deadlocks and doubts amongst all parties involved, due to the adjustments that have to be made to the educational practices so that the rights of each party are respected, understanding that the disability is just one more of the characteristics presented by the student, and the school as a whole must respect this difference and find an accessible way to convey (or collaboratively construct) knowledge. In this presentation, I intend to discuss the means and the extent by which the benefits of inclusive education to all students – mainly in Elementary School, which comprises students from 6 to 11 years of age – as mentioned in the UN Program on Disability, published in 1994, for non-disabled students - are available nowadays for groups attending public schools, after over 20 years of the release of the aforementioned document. It is worth recalling that these benefits include: a wider range of models for social roles; developing the understanding of their individual diversity, as well as the diversity of others; increasing responsibility and learning through teaching among the others; being better prepared to live in a diverse society in adulthood, among other benefits of studying in an inclusive classroom. This paper is an excerpt of my doctoral research, currently under development. It is being carried out in a Primary Education classroom, with 6 to 11 year-old students, in a public school in what is called Greater São Paulo (Brazil), i.e., a city in the outskirts of São Paulo, located 50km away from this state capital city. In the school where the investigation takes place, Preschool and Primary Education are taught. The school is located in a residential neighborhood, whose inhabitants are lower middle class, i.e., people of average purchasing power. There are 10 classrooms in the school and other facilities such as a reading room, a computer laboratory, indoor courts, among others, and a staff of 69 employees. The school has included disabled students for over 20 years and this investigation is carried out in a classroom where there is one disabled student. Firstly, I investigate how the relations between students and teachers are organized in this school – in this classroom setting – and what cognitive and emotional reactions working with a disabled student might cause in the other students, besides verifying how the classroom teacher leads this educational inclusion process, concerning values, morality and respect for differences, considering that "Identity and difference are cultural and social creations" (Silva, 2000). Then, considering that the chosen methodology is the Critical Research of Collaboration (Magalhães, 2010), I aim to intervene in this social environment with a view to provide a means for students and teacher to discuss their knowledge construction and the language which is employed by them in their everyday teaching-learning activity. Critical Research of Collaboration (PCCol) aims at "organizing investigations based on a critical praxis as a transforming and creative activity, in which the relations between theory and practice are dialectally understood, in their mutual autonomy and dependence, in other words, as praxis. (Magalhães, 2010)", and states that the researcher must be an active part in the researching process. PCCol aims at fostering a culture of analysis and reflection upon the practices, as a means to enable the explanation of the changes that take place in this environment, by questioning and reflecting upon the school context. (Pimenta, Garrido E Moura, 2000). The authors also quote that teachers involved in collaborative thinking tend "to be able to question, analyze and understand their own practices, as well as to produce meaning and knowledge that enabled them to lead the transformation process of school practices, resulting in changes in the

school culture (…)". This is possible because one of the theories underlying the PCCol is the Critical Reflective framework, and one of the methods of intervention is the Reflective Session (Magalhães, 2006). The premise of PCCol, according to Magalhães (2007), indicates that the relations among participants are recognized as collaborative relations, which enables them to share new meanings and produce new ways to be and act in the world. The theoretical basis that guides me through this path is the sociohistorical-cultural theory (Vygotsky, 1924-1934). This author understands that social-historical evolution and the students' personal and cultural experiences must be considered during the education process. He also states that a child internalizes the cultural tools by using language. The means by which children in an inclusive classroom internalize cultural tools and how they demonstrate affection in this space are the object of the investigation carried out in this study. According to Magalhães (2009), the changes that take place in a certain context are marked by a collective activity (organized by all parties involved) and have a particular intention, that use the establishment of rules and the division of labor to construct the Zone of Proximal Development, that is mediated by language, enhancing changes in totalities. In this perspective, I am carrying out this study that, as aforementioned, is my doctoral research project in the Post-Graduation Program on Education and Health in Infancy and Adolescence of the São Paulo Federal University (UNIFESP). The research line of this program investigates the relations that become chronic problems, especially concerning their educational experiences. Particularly in my research, this is shown by the analysis of the inclusion of disabled students in regular schooling and the moral and ethical consequences to the parties involved in this process.

**Format:** Paper presented in a Symposium (307)

# Tracing learning outcomes across theory and practice (266)

Magnus Hontvedt *(University College of Southeast Norway)*, Kenneth Silseth *(University College of Southeast Norway)*, Christina Mølstad *(Hedmark University of Applied Sciences)* & Tine Prøitz *(University College of Southeast Norway*

The current paper reports on an on-going research project that explores how learning outcomes oriented policy and governing in Norway can be recognised in school practice. By outlining the project's multi-level analysis, we will discuss how this strategy can generate new knowledge about the practices of assessment in schools. For this endeavour, we draw on sociocultural learning theory (Greeno, Collins, & Resnick, 1996; Vygotsky, 1978), which provides a conceptual framework for addressing how meaning learning outcomes and assessment is constituted in social interaction by the use of institutional instruments, techniques and tools.

For examining how current learning outcomes oriented policies are formulated in policy and inscribed in practice, the project has conducted document-analysis of nationally as well as locally produced policy documents (Cohen et al. 2011, Bowen 2009), done an initial phase of interviews and participatory observation at three case schools — before undertaking more focused video-observations in selected classrooms. The video-data are subjected to interaction analysis (Jordan & Henderson, 1995), which is an analytical framework that is well suited for analysing in detail how the different actors co-produce knowledge.

The outcomes shed light on how on how learning outcomes and assessment is developed and performed as part of the classroom activities. The combined use of document studies, interviews and participatory observation represents a novel sociocultural approach to the multi-level analysis of learning outcomes and assessment.

**Format:** Paper presented in a Paper Session

# Medical adherence as an activity (290)

Michael Hoover *(McGill University)* & George Carani *(McGill University)*

Since the advent of effective drug strategies for managing HIV and AIDS, one of the biggest issues facing people living with HIV/AIDS (PWAs) is managing medical adherence. The powerful combination of drugs that can be effective in keeping the symptoms at bay also has noxious side effects that often require further medication. In this paper, we present an analysis of medical adherence as a concrete pill-taking activity, by comparing the concrete and psychological tools, interaction with a support community, and the roles that the PWA takes to support medical adherence. Specifically, we compare this activity as experienced by two PWAs: one successful in maintaining medical adherence, and another less successful. Both participants were PWAs of limited means living in subsidized housing in the gay neighbourhood of a large French-speaking metropolitan city in North America. Both had access to medical care and medicine through the provincial health care system. Results of the CHAT analysis indicate that the contradictions that interfere with success in this pill-taking activity are not those of lack of information or education on the disease or the drugs, but rather are rooted in concrete elements of the pill-taking activity. These results are discussed in terms of implications for supporting PWAs and other patients on difficult medical regimes, with a recommendation that efforts be directed not at the dissemination of information but rather on concrete training and support towards overcoming the contradictions inherent in the daily activity of pill-taking.

**Format:** Paper presented in a Paper Session

# Building common knowledge between parents and children: cultural-historical insights into parenting (012)

Nick Hopwood *(University of Technology Sydney)*

This paper extends work informed by contemporary cultural-historical theorists: Edwards, Hedegaard, and Derry. It explores how professionals support parents of children where some kind of risk to has been identified. The argument is that significant changes occur for parents through a learning process focused on developing common knowledge between parent and child. This learning forms the basis of developments (changed relationships between parents and elements of parenting practices), that promote wellbeing and buffer against risks. The professional intervention is conceptualised as enabling parents to understand the child as an agentic participant whose behaviours can be interpreted and shaped by attending to their motives in particular situations, even from a very early age. The paper will consider an example from a home visit with a mother of a 14-week-old child. Edwards' (2016) has described forms of knowledge, expertise and agency involved in professional work where relationships with clients or other professionals are key to working on complex problems. However, her concept of common knowledge has not previously been applied to relationships between parents and children. Edwards' Leont'evian approach foregrounds the importance of motives, as does Hedegaard (2012), the latter within a conceptualisation of activities in practices in institutions. Her recent writing on Vygotsky's notion of the social situation of development is important to the analysis presented here. Derry's (2008) notion of the space of reasons is further deployed in linking these analytical approaches.

**Format:** Paper presented in a Paper Session

# Double stimulation as a means to understand the role of professional expertise in partnership with clients (014)

Nick Hopwood *(University of Technology Sydney)* & Belinda Gottschalk *(University of Technology Sydney)*

This paper explores how ideas introduced by professionals can shift parents' understanding of and responses to problems, tracing concepts in use in coconfigured practices. It applies a Vygotskian model of double stimulation (DS), as recently developed further by Sannino, to early-childhood services where professionals work in partnership with parents to assist in resolving complex problems. Observations of over seventy professional-parent interactions provide a rich basis for exploring forms of DS in practice, and the analytical value of this conceptual model. Findings revealed that observed interactions displayed varying qualities associated with the DS model, with DS sometimes, but not always, functioning as a basis for resolution. This has implications for professionals in understanding how their expertise can help parents develop volitional action in a framework of partnership. This analysis:
1. Highlights the importance of recognising conflicting stimuli as a productive basis for intervention.
2. Confirms the importance of identifying and working with motives, rather than stimuli.
3. Elucidates what is demanded of professionals seeking to work in partnership, what can make such work difficult.
4. Provides a set of principles through which specialist expertise can be put to work without undermining values of partnership.
5. Provides an analytical basis for both specifying what might count as success in an intervention and for explaining why this is accomplished or not.

This paper advances cultural-historical work through application and adaptation of a model of double stimulation to capture and explain crucial features of coconfigured professional practices.

**Format:** Paper presented in a Paper Session

# Expertise, learning, and agency in partnership practices in services for families with young children

Nick Hopwood *(University of Technology Sydney)*

The concepts of common knowledge, relational expertise, and relational agency are put to work in understanding services that support families with young children at risk. Their partnership approaches reject didactic, expert-led models and instead promote negotiated ways of working with clients. A cultural-historical analysis, using Edwards' three key concepts, frames this work under broader theorisations of resilience and agency, and more specifically helps to pinpoint how positive change for families emerges through complex, collaborative knowledge work. I argue that partnership involves professionals working on an 'intra-mediated problem of practice' where common knowledge, relational expertise, and relational agency are all brought into explicit focus. This enables partnership approaches to be more fully specified, articulating a strong role for professional expertise and ongoing learning in practice, while maintaining clear contrast with expert-led models.

**Format:** Paper presented in a Symposium (029)

# How Japanese adolescents keep their friendships: narrative identity research on high school boys and girls (319)

Yuko Hosaka *(University of Hyogo)*

Arguably, "friendship" plays a key role in identity formation, especially in late-modern societies. While individualism is expanding at the expense of traditional Japanese cultural values of collective order, harmony, and courtesy (Japanese "WA" culture), "friendship" may have the potential of lending a new connective tissue to modern sociality. "Friendship" can change form with growth, especially in adolescence, from syntonic relationships: put their value on sameness, do same activities or like the same stuff, etc., to respect each other's difference (individuality). On the other hand, women tend to fail this shift and keep the syntonic friendship (respect their sameness), but does this show that women cannot develop a higher form of relationship? When it comes to Japanese culture, syntonic attitude is traditionally made much account of holding relationships. For Japanese adolescents, it must be hard to keep that balance between respecting their difference and keeping their sameness.

In this presentation, I will show how Japanese adolescents struggle in their relationships with friends and discuss how this is played out differently in males compared to females. The data come from group interviews with high school students, in which boys and girls independently tell friendship-stories. The small stories of young men reveal very different positioning strategies compared to women's narratives. I will show their understanding of gender expectation and their strategies to cope with this dilemma, in terms of what they think they should and what they want to be.

**Format:** Paper presented in a Paper Session

# 'Relational agency' as the driving force of improvement in welfare services in Iceland (115)

Jona Ingolfsdottir *(University of Iceland)* & Thurídur Jóhannsdóttir *(University of Iceland, School of Education)*

Professional practice is usually seen as developed and enacted within specific institutional settings. However, there is a growing awareness of the importance of ecological models in welfare services directed at young disabled children; shifting from specialist focused services to a child and family-focused approach as international conventions and Icelandic law indicate. This requires new forms of practice which call for a capacity to collaborate with other practitioners and draw on resources that may be distributed within and across systems. In this presentation, the concept of relational agency is described and illustrated with reference to a qualitative multi-case study performed in three municipalities in Iceland. The aim is to explore the services provided to young disabled children and their families with an emphasis on capturing the views of the parents in order to contribute to the development of services in a system of distributed expertise. The analysis is located within Cultural-historical activity theory (CHAT). The findings indicate tensions between the three activity systems involved: a) the families, b) the preschools where the children spend their day and c) the specialist services provided outside the preschool. Moreover, the findings demonstrate how the parents see the services as fragmented and incompatible. In the presentation we illustrate how the conceptual tools and concepts offered by CHAT such as 'interacting activity systems', 'boundary space' and 'boundary crossing', 'expansive learning' and 'relational agency' can be utilised to underpin an enhanced form of professional agency which is of benefit to the objects of practice.

**Format:** Paper presented in a Paper Session

# Experiences of learning in transprofessional collaboration – Building mutual understanding and new practices in a Third Space between healthcare and the arts (339)

Satu-Mari Jansson *(University of Arts Helsinki, Theatre Academy, Arts Equal)*

The aim is to study learning resulting from transprofessional and inter-organisational collaboration. The object of the study is a transprofessional collaboration that was formed between healthcare organisations and arts organisations. The aim of this pilot intervention was to support a group of healthcare patients with anxiety by bringing together three different professionals from two different organisations. The two different kinds of organisations started their collaboration by defining the project objective. Later on, three professionals (two from a healthcare organisation and one from an arts organisation) worked side by side to bring together different tools and viewpoints, helping patients to cope with anxiety.

I examine transprofessional collaboration and learning as narrated by the professionals themselves in individual interviews. The data is analysed by applying narrative analysis (Polkinghorne, 1995). I am also interested in understanding how mutual collaboration has affected the professionals' ways of seeing their object of work: for example, how patients with anxiety can be supported. With this study, I answer the following two research questions: How do professionals narrate transprofessional and inter-organisational collaboration? How did transprofessional collaboration affect the viewpoints and practices of the healthcare and arts professionals after the pilot intervention?

I use the notions of mediation, Third Space and learning. In this study, I am interested in understanding how professionals constructed their mutual, yet diverse knowledge basis when their experience was brought together. I am also interested in seeing whether building shared knowledge changed professional views and practices as the professionals gained common ground through their collaboration.

**Format:** Paper presented in a Working Group Roundtable

# The dialectics of the abstract and the concrete in A. R. Luria's 'romantic science' (049)

Ian Jasper *(Canterbury Christ Church University)*

In recent decades there has been a growth in the area of academic life story work. This work is itself part of a more general 'narrative turn' in social science. Around 1960, A.R. Luria produced two works which were recognisably 'life stories'. Luria described his 'Mind of a Mnemonist' and 'The Man with a Shattered World' as examples of 'romantic science'. Jerome Bruner and Oliver Sacks enthusiastically welcomed the publication of Luria's 'romantic science' both believed that these works represented the emergence of a 'new literary genre'. Luria's romantic science might be seen as a contributory, though distinct, part of the wider 'narrative turn' in social science. It is argued here that 'romantic science' itself should be viewed as a particular response to the problem of how to 'ascend from the abstract to the concrete' in social science allowing the 'lifeworld' to be used as a unit of analysis. In contrast to a great part of the overall 'narrative turn' Luria's 'romantic science' is highly successful both scientifically and narratively. Luria's work indicates the great potential of life story work as an academic endeavour.

**Format:** Poster presented in a Structured Poster Session

# From Russia with love – On the relation between Vygotsky's conceptual development and Spinoza's theory of knowledge (244)

Lars Bang Jensen *(Manchester Metropolitan University)*

There is a legacy from the 17th philosopher Benedict Spinoza in L.S. Vygotsky's thought and psychology, most notably his manuscript The Teaching about emotions. Historical-Psychological Studies (Vygotsky, 1999), saw Spinoza's theory of emotions as the solution to the issues Vygotsky faced regarding the development of emotions. In Spinoza's seminal work Ethics (Spinoza, 1996) his theory of the affects and emotions are closely related to the relation between knowledge and understanding. In Spinoza's philosophical system emotions are thus deeply intrinsic and a prerequisite for the development of understanding and knowledge. Vygotsky's thoughts regarding conceptual development are thus here forwarded in such a Spinozist frame, and Spinoza's influence in Vygotsky's work regarding the knowledge/emotion relation will be enunciated and highlighted. This potentially sheds new light on contemporary cultural-historical activity research, and how to conceptually understand the relation between conceptual development and emotions.

**Format:** Paper presented in a Paper Session

# School leadership development: patterns of interactions in a project team (243)

Ruth Jensen *(University of Oslo)* & Kirsten Foshaug Vennebo *(University of Oslo)*

The need for specific education in school leadership is now recognized worldwide. Several countries have formal education and requirements for one to become a school leader. In many countries, school leaders are offered opportunities for further professional development via programs, networks, teams, which might be more horizontal in their nature than programs at colleges and universities. The purpose of the present article is to gain insight into patterns of interaction evolving in a project team, composed of participants representing professional and positional diversity. The team was established to promote school improvement and school leadership development in a Norwegian context. We explore the kinds of actions performed by the team, and what characterizes the distribution of actions in the team's work on different problem spaces, as well as how the actions performed connect and intersect into patterns of interactions. The theoretical framework builds on Cultural Historical Activity Theory, and the analysis is based on audio and video data. The study shows that the distribution of actions indicates that the team developed its own vertical structure. The different kinds of actions seem to connect and intersect when the team members are building on and expanding each other's contributions when working in different problem spaces. Since inter-organizational work has become common in the education of school leaders, and the present study is a single case study, more research is needed to expand the frontier of knowledge.

**Format:** Paper presented in a Paper Session

# Causality in qualitative research on school leadership development: An activity theoretical approach (245)

Ruth Jensen *(University of Oslo)* & Kirsten Foshaug Vennebo *(University of Oslo)*

Organizations use a considerable amount of money on school leader development. Many stakeholders are interested in determining whether leadership development works. The usage of evidence-based practice has increased in the last decade. This is also the case with the school leadership development. Quantitative researchers have been engaged in developing laws, which in turn can prescribe what school leadership development should look like to become effective in school leadership practices in schools. Based on a discussion of the terms evidence-based practice and causality, in this article we discuss the role of quantitative research in this landscape. The article is a theoretical and methodological contribution, which aims to shed light on the potential of qualitative data to generate findings about the relationship between school leadership development and leadership in schools. Using data from a PhD dissertation as empirical illustrations, we show how qualitative data when analysed through three layers of causality (Engeström, 2011) has the potential to generate knowledge about links between school leadership development and leadership in schools. We also discuss the implications of the usage of these layers of causality for how to collect data. Finally, we outline the role of qualitative research when it comes to be conducive to school leadership practices.

**Format:** Paper presented in a Paper Session

# From the systemic to the relational: Facing new work challenges across boundaries (094)

Vilborg Jóhannsdóttir *(University of Iceland)* & Jona Ingolfsdottir *(University of Iceland)*

This study focuses on the complex work challenges facing social pedagogues in Iceland due to a paradigm shift from the individual or medical model of disability to a more social or human rights-based model, which is the impetus of the study. This ideological shift calls for new forms of practice as stated in the UN Convention on the Rights of Disabled People (CRPD). This paper reviews the data from a study conducted in two municipalities in Iceland. The aim is to get insight into how these paradigm changes affect the internal and external circumstances within the working environment of social pedagogues working in these municipalities. Furthermore, the aim is to grasp their views and lived experiences to better understand their need for professional support. The findings are based on a mixed method study; a half-open questionnaire followed by semi-structured interviews. Cultural-historical activity theory was used as a theoretical framework for analysing and better understanding the data in order to better understand social pedagogical practice in a complex working situation. The findings show the effectiveness of activity theory as a tool to shed light on the contradictions and struggle experienced by the professionals in their efforts to comply with the demands stated in the CRPD. The findings also indicate that their professional practice has historically developed in a systemic institutional way and that there is a need to focus on individual action to action with others as a step towards supporting one's actions in accordance with new demands.

**Format:** Paper presented in a Paper Session

# Networking for the benefit of education in the Icelandic countryside. Formation and development of a network of upper secondary schools in Iceland (221)

Thurídur Jóhannsdóttir *(University of Iceland, School of Education)*

The study explores formation and development of The Distance College, a grass-root collaboration of 13 upper secondary schools in the Icelandic countryside. The aim of the study is to understand the network as a response to societal changes and shed light on the way in which the network supports schools for the benefit of education in rural communities. An ethnographic approach was used for generating data and Cultural-historical and activity theory is the theoretical framework. The focus is on the development of practice in the onsite communities in the schools and in the online spaces which serve as a tool for networking and as a platform for distance learning and teaching. Engeström's (e.g. 1999, 2011) model of the expansive learning cycle is used for analyzing the formation and development of the network. Findings direct attention to the importance of the interplay of conceptual and material tools (Vygotsky, 1978) in developing changed practice. The vision for the importance of education has supported school practitioners in changing their practice which involves learning to network with colleagues and using ICT tools for learning and teaching. The collective responsibility of the teachers and the principals in the schools and the way in which they are learning to develop a changed practice in and between the schools are noteworthy. The study gives insight into the way in which educators in sparsely populated regions in Iceland, respond to social realities well known all over the world.

**Format:** Paper presented in a Paper Session

# Rethinking inclusion of preschool children with disabilities: an analysis using the concept of social situation of development (060)

Fatema Taj Johora *(Monash University)*

Disability and education for children with disabilities have been viewed mostly through "medical model" and "social model" of disability. However, Vygotsky's (1993) cultural-historical concept of secondary disability and his concept of inclusion almost remain unheard. Literature has shown that the participation of children with disabilities in preschools has not received enough attention of researchers (Law et al., 2012; Raghavendra, 2013). This interactive poster will present the study which explores participation of children with disabilities in an Australian mainstream preschool using cultural-historical lenses of disability and inclusion. This study uses the concept of the social situation of development as an analytical tool to understand the participation process of children with disabilities. Children with disabilities and children without disabilities were filmed in different activity settings in preschool. In addition to that, teacher's and parents' perspectives were captured through series of unstructured interviews. The result to date shows how the preschool culture and practice help the children as well as how the children themselves bring change in practice or cope with existing practice to participate in preschool activities. The findings contribute to the less explored area of inclusion in preschool level. The study has implications for special education, teacher development and inclusive practice in preschool level.

**Format:** Paper presentation on PhD Day

# Présentation des actes du sixième séminaire international Vygotski : « Histoire, culture, développement : Questions théoriques, recherches empiriques » (Paris, juin 2015) (356)

Christophe Joigneaux *(Université Paris Est Créteil (UPEC))*

Cette communication se propose de présenter une partie des actes en ligne du « sixième séminaire pluridisciplinaire international Vygotski ». Intitulé « Histoire, culture, développement : questions théoriques, recherches empiriques », ce séminaire s'est tenu à Paris les 15 et 16 juin 2015 à l'occasion de la publication en français de « Histoire du développement des fonctions psychiques supérieures » de Vygotski.

Une partie des contributions à ce séminaire s'inscrit dans une des perspectives qu'ouvre cet ouvrage : le rôle décisif dans le développement humain des différents modes d'utilisation et d'appropriation des ensembles sémiotiques (langage, écriture, calcul…) et de leurs supports. Ces travaux ne se contentent donc pas de la seule étude du potentiel développemental de chacun de ces ensembles, mais aussi des modalités des « activités médiatisantes » (selon une expression de Vygotski) selon lesquelles ils sont diversement exploités, selon les caractéristiques des situations et des institutions (école, famille, justice…) ou des dispositions des sujets qui y sont impliqués. Sont ainsi analysés les usages des livres de jeunesse et plus généralement des objets dans un cadre familial, de l'humour et de différentes formes de langages (corporel et verbal) dans des écoles, du dialogue au cours de procédures judiciaires…

Ces travaux contribuent ainsi à explorer un des programmes de recherches de l'approche historico-culturelle prônée par Vygotski : la relation entre la pluralité des usages et des appropriations des ensembles sémiotiques, la diversité des « activités médiatisantes » et leurs implications sur les voies que peut emprunter le développement humain.

**Format:** Paper presented in a Paper Session

# Continuities and disruptions in renegotiating Vygotsky's legacy: a four-cornered debate (139)

Chair: Peter Jones *(Sheffield Hallam University)*

Peter Jones *(Sheffield Hallam University)*, Anna Stetsenko *(The Graduate Center, City University of New York (CUNY) (New York, NY, United States)*, Fernando González Rey *(University Center of Brasilia/ University of Brasilia)* & Ines Langemeyer *(Karlsruhe Institute of Technology)*

Four contributors enter into dialogue, each with a different perspective on Vygotsky's legacy and its contemporary significance. Together, the papers address fundamental issues concerning the origins, development and future promise of Vygotsky's theory: its philosophical assumptions and theoretical sources, its direction of travel, its problems, lacunae and radical growth points, changing perspectives in its reception and interpretation, and its relevance today for our efforts to build a better world. Fernando González Rey ('Discussing new pathways on Vygotsky's legacy: sense, perizhivanie and subjectivity') argues for the significance of concepts in Vygotsky's later work, including 'sense', 'perizhivanie' and 'social situation of development' in forging a new conception of subjectivity. Ines Langemeyer ('The dialectics of societal, social, and psychological development: Vygotsky's legacy') explores the importance of Vygotsky's dialectical insights into social and psychological change and transformation for our understanding of the development of cooperative intellectual competence in scientific and technological labour. Peter E Jones ('Vygotsky's legacy in prospect: to build on or to build around?') argues that key principles of Vygotsky's psychological theory are grounded in perspectives on language and communication which appear indefensible today and considers an alternative point of departure in the study of cooperation. Finally, Anna Stetsenko ('Transformative onto-epistemology and its implications for expanding, revising, and renegotiating Vygotsky's project: The relevance of subjectivity and intersubjectivity'), via a critical examination of shifting interpretations of Vygotsky's theory, argues the necessity for a transformative onto-epistemology in grasping the core of Vygotsky's project through its expansive critique.

**Format:** Symposium

# The language of co-operation: Critical perspectives

Peter Jones *(Sheffield Hallam University)*

Peter E Jones (Department of Humanities (Sheffield Hallam University, UK), the first presenter discusses "The Language of Co-operation: Critical Perspectives". As he points, most scholars would agree that language is fundamental to cooperative social activity in human communities. Yet, there are deep divisions, both theoretical and philosophical, between linguistic traditions, resulting in quite different perspectives on the role of language in co-operation and on the nature of co-operation itself. This paper surveys the current field of language study and examines the implications of particular traditions for our understanding of co-operation. Four broad currents of language research are identified: • A 'classical model' in which language is an autonomous system of forms and meanings and communication as transmission of mental content via a shared code. • An 'instrumental' tradition in which language is a culturally-forged tool for sharing information between individuals. • An 'intentionalist' current in which the 'classical model' is supplemented by pragmatic principles based on Grice's intention-based 'Co-operative Principle'.; communication is seen as itself a co-operative enterprise relying on 'mind reading' processes guided by mutual intersubjectivity and shared intentionality. • An 'activity' current, emerging from critical responses to the 'classical model' of language as well as to 'internalist' models of the human mind. The paper argues that a crucial turning point in understanding the role of linguistic communication in cooperative activity was the realization that communication is itself a cooperative practice, meaning that 'the cooperation of several individuals, no matter under what conditions, in what manner and to what end' becomes the fundamental touchstone of language and communication research.

**Format:** Paper presented in a Symposium (100)

# Vygotsky's legacy in prospect: to build on or to build around?

Peter Jones *(Sheffield Hallam University)*

The paper argues that the main principles of Vygotsky's psychological theory (in its different phases) appear indefensible today since they are constructed on assumptions and claims about language and communication that we would no longer entertain. More specifically, the semiological infrastructure of Vygotsky's psychology was developed from the mechanistic tenets of the then in vogue reflexology and Soviet Marxist 'materialism' resulting in an attempt to combine the explanatory properties of a 'causal-mechanical' sign, on the one hand, with an 'abstract-scholastic' sign on the other. The paper argues that if we were to start again the project of developing an approach to the human mind, and to thinking and action, which does justice to our view of human potential and, consequently, to an agenda of progressive social transformation, we wouldn't start where Vygotsky started (or where he finished). In this paper, I aim to set out the reasons why we might want to start building in a different place, while recognising and capitalising on Vygotsky's brilliant insights as well as the importance of the questions he asked and the way he tried to answer them. So where to start? A social theory of human mind and potential must be about *social relationships*. Such a theory might take its cue from Marx's own definition of the 'social' as 'the cooperation of several individuals, no matter under what conditions, in what manner and to what end'. Thus, an understanding of cooperation, the paper argues, must be at the centre of both our critical re-appraisal of Vygotsky's legacy and our attempts to contribute intellectually and practically to the transformation of ways of social living that present political and economic circumstances demand. In particular, the paper shows that the communicative and cognitive capacities involved in cooperative activity and in the dynamic of potentially unlimited development of cooperative practice, cannot be explained by any particular psychological or semiological 'units' or 'functions': cooperation is not an outcome of the play of causal mechanisms but a socio-ethical achievement of particular individuals relating to one another in particular ways, putting trustful interdependence at the foundation of human sociality. And while cooperation depends on communication, communication itself is a cooperative practice and a cooperatively achieved outcome of interpersonal engagement. Foregrounding cooperation in this way, the paper argues, allows us to bypass the mechanical and scholastic dimensions of Vygotsky's cultural-historical psychology and to restore the intelligence, communicative creativity, ethical value and unlimited practical transformability of cooperative activity to its rightful place in our thinking and planning.

**Format:** Paper presented in a Symposium (139)

# Vygotsky's 'planning function of speech' and the communicational co-ordination of joint-activity

Peter Jones *(Sheffield Hallam University)*

Vygotsky's writings on the 'planning function of speech' represent a bold and exciting attempt to bring together the two aspects of linguistic communication which were fundamental to Vygotsky's psychological project at different phases: the *causal* or '*commanding*' role of the spoken utterance, on the one hand, and *verbal meaning* as abstract *generalization*, on the other. His treatment of the dynamically developing functions of spoken language in the execution and planning of practical action sparkles with novel insights into the complexity of purposeful action and the integration of past and future moments into the present field of activity which verbal planning affords. At the same time, however, the treatment is vulnerable to criticism at a number of key points. The paper argues that the roots of this conception of verbal planning were deeply spread in assumptions about the communicative and cognitive functions of language that were taken from the mechanistic reflexological theories of Pavlov and others. In particular, the assumption that the prior formulation of a verbal plan was necessary to goal-directed action reflected the reflexological conviction that human actions were behavioural *reactions* which followed (causally) from artificially created symbolic 'stimuli'. The same basic assumption led Vygotsky to interpret 'egocentric' ('private') speech as a cognitive mechanism for self-regulated action and to miss the socio-interactional and communicative value of private speech as revealed by Erving Goffman. From the standpoint of much more recent developments in linguistic and semiotic thinking, including integrationism and 'coordination' theory, the paper seeks to present a different understanding of communication and its role within purposeful and transformative social action which foregrounds the capacities of acting subjects to co-operatively and creatively integrate their activities (including planning activity) within joint practice.

**Format:** Paper presented in a Symposium (079)

# Identities of lecturers in college and the implications of continuous professional development

Samantha Jones *(Bedford College)*

The research reported in this paper aimed to develop the understanding of the relationship between identity, pedagogy and the continuous professional development (CPD) of lecturers in the further education sector. My earlier research had indicated that there was a contradiction between the object of the executive team of Emsworth College and that of the lecturers working in the college (Jones, 2016). Here, I intended to explore the relationship between identity, pedagogy and CPD in Emsworth College, and how identity and pedagogy could influence, and develop, during episodes of CPD chosen to reflect the identity and pedagogy of the participants. The fragmentation of practice and identities, which are a defining feature of the sector, presented challenges. How best to model both the remoteness of the executive team in relation to the departmental system's participants act in, and the CPD actions taken to reflect and develop identities, was an obstacle. The executive team reproduces the neo-liberal, marketised values of the sector which constrain both at a departmental and an individual level. The expression of this relationship I felt was facilitated by the use of Bernstein's theory of classification because it allowed me to express the contradiction between the uniformity expected of the executive and the diversity that exists within the organisation. By using Bernstein's theory, alongside the socio-cultural lens, I was able to explore the dominance of the college system with its confined and confining nature. In this complex relationship, it was found that the college activity system held contradictory concepts of learning and conflicting objects and rules to the activity systems of the participants. The college activity system dominated, conflicted with, and constrained the activity systems of the participants, and thus the participants' actualisation of their developed identity and pedagogy. This constraint appeared to be communicated by restricting lecturer agency using strongly framed models of development that focused on college priorities. Lecturers were also constrained by the organisation failing to recognise their identities and pedagogies either prior to, or following, the CPD episodes of the intervention. By including Bernstein's theory, I was able to offer a more nuanced representation of the dialectic tension between my participants and the college that constrained them. Ultimately this allowed me to offer practical considerations of how CPD could develop within this environment, by considering who could lead development within the organisation and steps the organisation could take to resolve the contradictions identified.

**Format:** Paper presented in a Symposium (247)

# Transformative pedagogies, learning places and the fourth blueplan: adapting vygotsky's perspectives on the mediating role of the environment into a social and semiotic model of collaborative meaning-making spaces (439)

Esther Joosa *(Arts of the Earth Learning Hub (Singapore, Singapore))*

The Fourth BluePlan presents the structure of a multi-layered social and semiotic design model that allows the transformation of traditional learning places into future-directed collaborative and meaning-making spaces. Vygotskys (1978) perspectives on the mediating role of the environment and the social and semiotic nature of human development are significant resources for the development of this model. Since Vygotsky's era, the global education landscape has witnessed vast changes. Some of the key characteristics of Vygotsky's perspectives allowed adaptations to the four management blueprints (Limerick, Cunninton & Crowther, 1998) and current perspectives on transformative pedagogies that include collaborative learning, management of individual and shared meaning, culturally sensitive engagement and social sustainability. The model emerged out of practice-based evaluative research with creative programs and diverse populations in Singapore. The findings of these studies revealed of how a flexible and adaptive environment nurtured personal emotions about lived experiences, exploration of ideas and self-motivation. With relatively little insights into the effect of social and semiotic influences that include physical conditions of learning places, further development of the design of the model included a critical investigation into the social and semiotic influences of space design. The design model was subsequently implemented within a creative and interactive environment. Visual evidence taken from the interactions within the space reveal not just key ingredients of transformative pedagogies, but also the individual engagement of different audiences. Although more research is needed, the Fourth BluePlan leads directions towards greater sensitivity about the influence of the environment on learning, knowledge and agency.

**Format:** Paper

# Psychogenic dimensions of drama in arts-based education

Alfredo Jornet *(University of Oslo)*

The discovery of *drama* as a fundamental category for the formulation of psychological questions is a key moment in the constitution of a *concrete human psychology* (Vygotsky, 1989). Contrary to the received view of psychological facts as something fundamentally internal and individual, concrete human psychology accounts for psychological facts in terms of humanity-specific social relations that make everyday life. Building from Politzer (1929/1994), Vygotsky finds in drama that psychological principle traversing the internal and the external, the individual and the social, the biological and the cultural. Thus, "*a drama truly full of internal struggle is impossible in organic systems*: the dynamic of the personality is drama" (p. 67). It is through formal and everyday (social) drama—which involve *perezhivanija* (Smagorinsky, 2011)—that individuals develop, as manifested intellectually and affectively in their activities. However, the significance of drama for our psychological understanding of human activity and for developing our human potential for reflection and change has only begun to be explored (e.g., Roth & Jornet, 2017; Veresov, 2010). In this study, we investigate the psychogenic (i.e., psyche-generating) dimensions of drama in an arts-based elementary school, in which everyday drama not only emerges spontaneously but also is a formal aspect of the teaching-learning praxis. Data are collected throughout participant ethnography in both art-based school tasks and reflective sessions co-organized with the teachers and targeting organizational change. Our analyses identify generative (intellectual, affective, and pragmatic) dynamics of drama emerging at the collective level that subsequently manifest as aspects of individual behavior.

**Format:** Paper presented in a Symposium (118)

# At the conjunction of the theory and method: A dynamic narrating approach (240)

Chair: Svetlana Jović *(The Graduate Center - CUNY)*

Svetlana Jović *(The Graduate Center - CUNY)*, Colette Daiute *(Graduate Center, City University of New York)*, Alessio Surian *(University of Padova)* & Christian Tarchi *(The Graduate Center - CUNY)*

A dynamic narrating approach (Daiute, 2010; 2014) we present in this symposium is a methodological embodiment of a cultural-historical activity theory premise of the interdependence of the individual with the social, the material, and the historical. Dynamic narrating is dialectical in the sense that it does not study the problems while they 'stand still'; rather, it allows us to study phenomena in movement, historically, and relationally as they develop. All research studies presented here were designed following the principle that narrating is a dynamic relational activity; that people use narrating to interact with others (actually present or implied), their environments, and themselves, in diverse ways. In order to account for this life-like diversity in narrating, each study involved participants in multiple narrating activities, employing diverse narrative genres, created for different purposes and directed toward different audiences. These diverse designs involving New York City students, war survivors from Sarajevo, international students in Italy, and students and teachers from Massachusetts, allowed for multiple perspectives within the issues explored in each respective study. Since the issues that participants mention in their narratives are likely determined by the present or implied readers and listeners of the narrative (Bakhtin, 1986; Holquist, 1990), eliciting narratives from multiple stakeholders' perspectives gives sound to voices that would otherwise remain silent had we included only one stakeholder's stance. Allowing for complexity and examining how individuals use narrating in relation to multiple contexts is particularly important given the diversity of the environments our study participants navigate on a daily basis.

**Format:** Symposium

# Youth's sense-making about fairness from the perspectives of agent vs. object of injustice

Svetlana Jović *(Graduate Center, City University of New York)*

This inquiry brings us closer to understanding some of the ways in which different socioeconomic backgrounds inform adolescents' sense-making about fairness. Among other questions, I explore how diverse youth make meaning about unfairness as they narrate from the positions of a plausible wrongdoer and an alleged victim of unspecified exclusion.

The study involved 63 adolescents of high-school age, recruited from poor, working, and middle-class neighborhoods of New York City. Narrative as a sense-making tool was used as the data collection/production and analysis approach. Youth's narratives were elicited as responses to a vignette they read, depicting an ambiguous social situation in which occurrence(s) of injustice might have occurred. I explored how diverse youth read the story in terms of eventual injustice present in it; how they position themselves inside the story–are they closer to the position of the 'victim' or the plausible 'culprit'; which character they humanize more by attributing them agency through the use of specific narrative strategies.

The findings indicate that while youth from more affluent background does not change their narrating strategies while occupying positions of the culprit and victim of exclusion, their less privileged counterparts express systematically varied use of particular narrative strategies, such as the use of psychological state expressions (phrases that refer to affect and cognition). When positioned as the culprit, underserved youth's narrating is significantly more saturated with affective than cognitive expressions, and surprisingly, a reversed trend – of using more cognitive than affective expressions – was observed in their narratives from the victim's perspective.

**Format:** Paper presented in a Symposium (240)

# Early childhood literacy and identity development (199)

Leonor Juárez García *(Benemérita Universidad Autónoma de Puebla)*

Unlike oral language primarily acquired at home, literacy skills are usually learned in formal educational institutions. This key premise of literacy as a collective training makes the development of it restrained to the influence of diverse social enactments. Additionally, the knowledge gained by a child during the first years of school life represents the shared knowledge of a culture but also the "schematic model of identity" (Bakhtin, 1993). This in-progress paper explores literacy practices from the point of view of 10 kindergarten educators from rural communities in central Mexico. In these communities, illiteracy percentages vary from 12 to 15% of the population; and from 29 to 35% of the people speak an indigenous language. The instrument used to collect the data was a focus group. The study utilizes Systemic Functional Linguistics (SFL, Halliday, 2003) as an analytical tool and constructs and argues the identity construct concept developed from these practices on Bakhtin's philosophy. General findings suggest ideological (Ideational) and socio-cultural (Interpersonal) views toward literacy (in Spanish) that might have a significant effect on the children´s identity development. Socio-culturally, findings suggest idealizations opposed to stigmatized identities (Foucault, 1995) in the conception of the literate/illiterate dyad. Specific discursive resources regarding literacy actors in these contexts suggest an attempt to an idealization of the practice of literacy in Spanish that could be leading to stereotypes in the indigenous languages. Finally, some not surprising but certainly unexpected findings regarding advantages of rural communities compared to urban communities were also salient.

**Format:** Paper presented in a Paper Session

# The analytical possibilities through cultural, social and historical Psychology in a research and training approach - The subjective dimension of education processes

Wanda Maria Junqueira de Aguiar *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Social and historical psychology, specifically the education psychology, has significantly helped creating knowledge about education processes. Mediated by theoretical and methodological skeleton of the materialism setting it and its cascadings performed by the precursors of social and historical psychology, it has been possible to study processes or situations beyond the looks, in order to explain the several relationships involved in it, considering the radical need to understand the genesis of the constitutive mediation of the relationships involved and, furthermore, in the case of our investigations, the understanding of the subjective dimension in objectivity. It is important to state it is only possible upon the non dichotomizing - but dialectic - perspective between objectivity and subjectivity. When we refer to the subjective dimension of educational processes, we understand the historical dynamics puts subjective and objective dimension in constant interaction, in a flow where one constitutes the other, one does not exist without the other. Therefore, we point to the importance of learning this chain of values, meanings and subjective experiences, here historically and socially constituted, which base and guide the educational processes. For a better explanation of the Reality Subjective Dimension category, we will discuss a few Historical and Dialectical Materialism categories (history, mediation and contradictions) and Cultural Historical and Social Psychology categories (activity, meanings, subjectivity, subjective dimension of the reality), for understanding they are used for the formulation provided herein. To conclude, we will present some of the research results evidencing the explanatory value of such categories.

**Format:** Paper presented in a Symposium (153)

# Change laboratory and collaborative problem-solving of preservice teachers (445)

Raoul Kamga *(Université Laval)*

Technologies are increasingly being used in educational contexts creating a need for teachers to develop a set of competencies. Collaborative problem-solving is one of these competencies, and it is considered as essential for teachers of the 21st century (Häkkinen et al., 2016). Indeed, in the classrooms, teachers encounter complex problems whose resolution may require collaboration. Thus, preservice teachers would benefit from developing this competency during their training. In this study, an educational robotics activity was performed to get future primary and preschool teachers to reflect on their collaborative problem-solving competence. During the first phase of the study, 180 future teachers worked in teams of five to eight people to carry out tasks of design and programming of the WeDo 1.0 robot. For the second phase of the study, participants were invited to answer questions about their collaborative problem-solving in a Change Laboratory session. Findings indicate that 64 percent of participants declared to have a level of 3 or less (in a scale of 1 to 4) on the search for external resources useful for problem solving.

**Format:** Poster

# Subjectivity on the Internet highlighting sexuality dimension (155)

Gustavo Kazuo *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Edna Maria Peters Kahhale *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Felipe Almada *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Carolina Silva *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Carla Anauate *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Irene Zerbini *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Jeferson Montreozol *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

The objective of this study is to investigate the subjectivity is expressed on a social networking site of infidelity under the scope of sexuality and relationships gênero. The man carries the needs provider value and woman is seen only as the caretaker of the home environment. This study is characterized as exploratory. The data are based on profiles of 632 users, 317 men and 315 women. Only analyzed the profiles of women, 96 (30.5%) say they are single and 219 (69.5%) claim to be a stable partner. With regard to public profile photo is noticed a difference between men and women. 59% of men put photos, on the other hand, 91.4% of women put photos in the open profile. This could confirm the fact that in the search for sexual partners for women is very important to show physically, as an object while that for men could be much smaller. Single women show that they do not know what they want (31.5%) or seek a long-term relationship (31.5%). The women committed seeking a boundless relationship, willing to all (28.8%) still do not know (21.5%) or something that excites (18.7%). The way to display aspects of sexuality indicates reproduction of the hegemonic pattern of gender relations: sexy women and available to be chosen and men showing their attributes only in private and available for sex.

**Format:** Poster

# The naming question: Hasan's questions and Vygotsky's last answers (357)

David Kellogg *(Macquarie University)*

Ruqaiya Hasan was a close but critical reader of Vygotsky. She reproached him with lacking a theory of theory of instantiation: that is, with being unable to distinguish between the linguistic "weather" and language "climate". In this talk, I propose to show that this criticism is not at all as unfair as it may seem, and that Vygotsky was aware of the weakness in his theory of language and striving to remedy it at the time of his death. I propose to look at his very last lectures, the "Lectures on Pedology" and the unfinished manuscript on Child Development. In these lectures, Vygotsky outlines a theory of the zone of proximal development that goes far beyond pedagogy and instead considers the whole "climate" of language development. I propose to focus on how children learn that the "naming function" of language can be used to create imaginary entities. We compare a one-year-old, a three-year-old, for whom this is not yet possible, with a seven-year-old, who is learning to play with this "signifying" function of speech for the first time. In the conclusion of my talk, I argue that Vygotsky was, at the time of his death, studying the work of Jakobson and Trubetskoy, which later become the foundation of the Prague Circle. This would, in turn, form the basis for the systemic-functional linguistics of Ruqaiya Hasan herself.

**Format:** Paper presented in a Working Group Roundtable

# Language planning and policy in a school site. The diachronic dimension of mediation (130)

Shaun Kemp *(University of Melbourne)*

Lemke (2000) questioned the diachronic scales of analysis in complex social systems and argued for a dynamic analysis around process rather than hierarchical systems such as offered by specifically around identity development and cultural continuity. This paper engages with diachronic analysis as it relates to the field of Language Planning and Policy (LPP) through a case study of a local language problem: the introduction of Chinese language into an established government school, over a 10-year period. Using cultural-historical activity diachronic analysis to investigate the effect heterochrony has on short-term timescale activity. The semiotic affordances offered by mediation are affected by the rise of superdiversity (Arnaut et al. 2016), and with the rise of social media (McIntyre 2015), homophily has led to ossification of the mediated tensions and contradictions which according to Engeström (1987, 2001), are the motivating agent for outcomes. The chances for heterogenic mediation to move to an agreed outcome become complex and problematic and revolve around short timescales i.e. the length of the mediation and leads to willful ignorance to the long term (McIntyre 2015) biological interest of life but more to win the argument (Fish 2016). The paper identifies a 'narrative' of 'expanding learning cycles'(Engestrom, 1987, 2001), that unfold over time to understand the genesis of activity systems that create, maintain, and resolve cyclical (re)iterations of the problem in moving towards (and, at other times, away from) the implementation of Chinese as a new language program within the school.

**Format:** Paper presented in a Paper Session

# Exploring teachers' sense making of teaching and learning from classroom experiences (125)

Sonia Khan *(University of Oxford)*

This paper seeks to gain an understanding of how teaching and learning happen in classrooms from the sociocultural perspective, which holds that learning is founded within participation in social and cultural practices. The study focuses on how expert teachers do what they do from within the boundary of teachers' classroom teaching and learning experiences, which enables them to make sense and make meaning from those experiences. Teachers introduce subject matter content, which is at the center of teaching and learning, through tasks. Sense making and meaning making happens through interaction with the tasks. This study aims to explore how teachers make sense and make meaning from teaching and learning experiences in relation to tasks. To understand this complexity, twelve teachers of English and Mathematics, six each, have been observed. The process of data analysis, which will involve both within-case and cross-case analysis, is the current focus and is going on. The study will finally contribute towards the concept of teacher expertise by developing a framework of how experts do teaching and learning in classrooms. The study will further contribute towards the sociocultural theory by providing a framework of sense making and meaning making levels of the expert teachers.

**Format:** Paper presented in a Paper Session

# Cultural-historical theory of psychological development of L.S. Vygotsky and modern models of social cognition and psychotherapy (403)

Alla Kholmogorova *(Moscow State University of Psychology and Education (MSUPE))*

The report acknowledges the situation of methical crisis in modern research of social cognition related to the domination of reductive approaches that ignore the uniqueness of human psyche. The heuristicity of the concepts of cultural-historical theory of psychological development of L. S. Vygotsky, which serves to overcome the apparent inconsistencies, is substantiated. Two models of social cognition based on the principles of cultural-historical psychology are described, those being the model of social cognition within phylogenesis of M. Tomasello, and the model of social cognition within ontogenesis of C. Fernyhough. The current situation in the area of mental health is reviewed from the standpoint of cultural-historical psychology, its specifics reflected in the increased burden on reflexive functions, that is, skills lying within the sphere of social cognition, is substantiated. Modern psychotherapeutic apparatus directed to compensate social cognition deficits due to various psychiatric disorders are reviewed. The assumption that adolescence is a sensitive period for the development of higher forms of social cognition is made, and summaries of researches supporting this assertion are presented. The main contradictions of modern-day maturing are enunciated. To conclude the presented theoretical analysis, a comprehensive multiple-factor model of social cognition is presented based on concepts of cultural-historical theory of L. S. Vygotsky.

**Format:** Paper presented in a Paper Session

# Teacher candidates' enactment of a technology-enhanced literacy curriculum: A CHAT lens (144)

Mi Song Kim *(University of Western Ontario)*

STELLAR (Strategies for English Language Learning and Reading) is a technology-enhanced literacy curriculum with a focus on emergent literacy of Singapore elementary students to promote higher order thinking skills. The goal of this study is to understand better the factors that influence teacher technology integration within the STELLAR curriculum. Drawing upon Cultural-Historical Activity Theory (CHAT), this case study uses dialectical logic to frame the analysis of two teacher candidates' technology integration within STELLAR. In order to clarify the meaning of an observation by understanding of classroom activities from multiple perspectives, the study entailed multiple interconnected interpretive sources as field notes, audio- and videotaped recording, lesson plans, surveys, interviews, and teacher candidates' reflection papers and teaching metaphors. A comparative method was adopted to compare two cases with each other. In addition to the constant comparative method, CHAT was employed to analyze literacy practices in two teacher candidates' classrooms. Findings suggest that effective technology integration is related to two aspects: (1) building shared goals with students and (2) teachers' own learning experiences through participating in shared, joint literacy activities. Being able to articulate these aspects is an important step in helping teacher candidates become designers beyond delivering given a technology-enhanced literacy curriculum.

**Format:** Poster

# Sociocultural approaches for fostering a collaborative literacy pipeline: A telling case of an audio library project by preadolescents for younger peers (274)

Oaram Kim *(University of California, Santa Barbara)*, Jenna Joo *(University of California, Santa Barbara)* & Diana Arya *(University of California, Santa Barbara)*

Sociocultural approaches to literacy studies provide insightful frames for exploring and understanding the importance of social practices for knowledge building as well as identity development across time. Viewing literacy as a set of culturally and historically embedded practices, we investigated how a community-based literacy project served as an anchor to create a culture of collaboration and learning among the participating youth. The Audio Library Project was designed to support preadolescent students' (ages 10-11) engagement in literacy activities framed with a community-based purpose (i.e., reading and reviewing science texts and modifying such texts for younger peers) and provide opportunities to develop leadership skills (i.e., using acquired knowledge to create learning opportunities for younger peers). As such, the Audio Library Project evolved from the participating individuals' developing interests, multiple roles, as well as mediating tools integrated into and across activities (i.e., reading/modifying texts and audio-recording). Using the CHAT framework as our ontological foundation, our exploration involved a systematic, multi-layered record collection and analytical approaches, including a discourse analysis of moment-to-moment interactions. Preliminary findings revealed that collaborative activities supported the development of new understandings and strengthened literacy skills. Further, preadolescent students demonstrated greater agency through their collaborative actions and participatory roles while co-constructing, re-constructing, and distributing knowledge for younger peers. Such transformations and activity-based outcomes (e.g., the creation of an audio library for younger peers) became a new resource for other collective activities (peer mentoring) and further provided opportunities for the participants to reimagine their roles within and contributions to the community.

**Format:** Paper presented in a Working Group Roundtable

# Within "our" reach: Collective possessive expansion among manufacturing managers at the end of the millennium (031)

Jessica Kindred *(The City University of New York Graduate Center)*

Possessive expression can be empirically examined as a barometer of psychological ownership—a measure of participation in activity—and its rise and fall and contents a view into cultural cognition in action. Possessive expression was measured as a gauge of psychological ownership among middle managers and supervisors employed at a gear manufacturing company at the turn of the millennium, in 1998. The uses of my and our were measured in texts written by 34 of 48 participants across consecutive sessions of a training workshop. Writing collected between weekly sessions was examined for changing rates of possessive expression, my and our, across sessions to test the hypothesis of possessive expansion across collective constructive activity. Pronoun rate analysis revealed a statistically significant increase in the rate of our across sessions. Negative correlations between company tenure and the rate of our suggested an effect of working years on quelling collective possessive expression in the workshop experience. Owned terms, cultivated by the workshop experience across sessions, were collated across writers and analyzed qualitatively for the ethnographic universe they together illuminated, the cultural portrait of manufacturing they comprised. Collective possessive expansion across workshop writing illustrated the developmental effect of constructive activity, revealed the cultural reach of possessive expression, and comprised a lens into the sociocultural priorities of manufacturing work at the dusk of a manufacturing era.

**Format:** Paper presented in a Paper Session

# Being and Becoming Scientists Today: Developing a learner-scientist perspective and CHAT framework for teaching and learning science (309)

Susan Kirch *(New York University)* & Michele Amoroso *(New York University)*

Becoming scientists typically evokes an image of a linear pipeline from novice or apprentice to expert or mentor punctuated by some type of postsecondary or graduate certification.  In contrast, these authors understand being and becoming as a single process by which individuals come to understand the world and themselves by contributing to our understanding of the world.  In this paper presentation, we take this latter, neo-Vygotskian notion and we use it to build a new conceptual framework for participation in and contribution
to science and science education.

Our work uses cultural-historical activity theory, published research studies, and a longitudinal empirical study to propose answers to questions that interest learners, but are not typically the questions asked in science throughout a student's K-16 experience.  In order to forefront the perspectives of learner-scientists in science instruction we analyze each question historically, identify common myths and reconstruct them, and propose new tools for teaching toward four categories of learner-scientist questions.  All of our work has taken place in elementary school classrooms in a large urban school district in the United States.  We are both teacher educators at large universities (one public, one private) concerned with how new elementary school teachers will view science and design instruction for their future students.  We will discuss how our work is applicable more broadly across the school curriculum and beyond.

**Format:** Paper presented in a Paper Session

# Teacher development in community constellations as a tool of ZPD (158)

Mai Kishino *(University of Fukui)*

To enhance the quality of learning for meeting the challenges of the 21st century (OECD, 2015), teachers must create lessons in which students try to solve problems collaboratively. Such new educational practices cannot be achieved without teachers' reflection (Schön, 1983). The purpose of this study is to illuminate how teachers reflect on their practice within their "communities of practices" (Wenger, McDermott, & Snyder, 2002).

A case study method was used. The participant was a teacher in an elementary school. He taught grades 5 and 6 over a 2-year period, and he held the position of coordinator of "lesson study", in which teachers observe each other's lessons. He was also a graduate student whose practical research I supported by participating in lesson studies. Data included my field notes and the teacher's practical reports.

The teacher transformed his lessons through reflection within communities. In "the graduate school community", he reviewed his own practice and discussed it with teachers from other schools. Through the process of crossing boundary of each school, he reconstructed his beliefs about learning and he came to reflect on his role as coordinator and facilitator. "The classroom community" changed in response to his reflectivity. The students' relationships shifted to a greater emphasis on joint thinking and mutual respect. At the same time, "the community of teachers at his school" moved toward greater collaborative inquiry.

It was suggested that the constellation of these communities encouraged the teacher's reflection and that it would support teachers' development as a tool of ZDP.

**Format:** Paper presented in a Paper Session

# Relationships of exchange among various stakeholders in welfare service corporations' entrepreneurial activities (159)

Ryota Kitamoto *(Graduate School of Comprehensive Human Sciences, University of Tsukuba)*

In this paper, I focused on the background that is needed for changing the form of work and capitalist values and investigated the process of starting new welfare service corporations. I used the Actor Network Theory for describing the dynamics involved in the process of enterprises being conducted among various actors. I focused especially on the relationships of exchange of various aspects (for example, emotionality) among various actors. The data were collected through semi-structured interviews of members of welfare service corporations and stakeholders involved either directly or indirectly with these corporations (for example, bank employees, community residents, etc.). As a result, I proposed the concept of "the most peripheral participant" and discussed the form of emotional exchange between "the most peripheral participant" and entrepreneurs. "The most peripheral participant" is largely at a physical distance from these corporations and does not participate in management directly. However, "the most peripheral participant" has three important roles in generating relationships of exchange between these corporations and other stakeholders. First, "the most peripheral participant" is a starting point for relationships of exchange between these corporations and other stakeholders. Second, "the most peripheral participant" orientates the relationships of exchange. For example, members of these corporations cannot manage only to seek profit when gazed at by "the most peripheral participant." Third, "the most peripheral participant" works as a bridge between these corporations and new stakeholders. We can discuss the complexity of relationships of exchange through the concept of "the most peripheral participant."

**Format:** Poster

# Following Politzer and Vygotsky calling for a concrete human psychology: Methodological and analytical implications of doing concrete psychology for interventionist research (264)

Laure Kloetzer *(University of Neuchâtel)*

In short, this paper aims at discussing the project of concrete psychology, anchored in vital human drama, both for Vygotsky and Politzer, and its methodological implications, especially in an interventionist, developmental, transformative perspective. How can we push the agenda of concrete psychology forward? In this paper, after discussing both Vygotsky's and Politzer's views on concrete human psychology, we will argue that the concept of activity, defined as psychological activity (Clot, 1999), offers the potential to move one step forward in the direction of a truly concrete human psychology, which respects both requirements of Vygotsky and Politzer on the constitution of its scientific object and methodology. Activity is here both the unit of analysis and analytical tool which allow to follow developmental processes. We will ground this theoretical and methodological discussion in a recent intervention conducted in a factory on the transmission of professional gestures and collective construction of expertise in a factory with the methodology of cross self-confrontations, which we will discuss in relation to our goal of constructing a concrete psychology.

**Format:** Paper presented in a Paper Session

# Examining the development of collective understanding between researcher and facilitator communities through article unpacking

Marta Kobiela *(McGill University)*, Scosha Merovitz *(McGill University, Bishop's University)*, Cheryl Cantin *(Eastern Townships School Board)* & Terry Lin, Hailey Iacono

This presentation provides an overview of one of the projects in the PRACTIS team: Creating, Computing, and Collaborating in Mathematics (CCC-M), examining how it can be described through the combined lenses of the communities of practice framework and cultural-historical activity theory. This paper serves to: (a) Document the evolving processes of a professional learning network (PLN), which aims at enhancing the capacity of teachers and students for integrating technology into teaching and learning and to improve student success in mathematics, with a focus on the transition from elementary to secondary school, as the context of a research-practice partnership project (b) Characterize two different communities (i.e., research and teaching communities) in the PLN in terms of "communities of practice (CoP)" (e.g., Joint enterprise, mutual engagement, and shared repertoire) (Wenger, 1998) and in terms of "Activity Theory framework" (Engeström, 1987). (c) Conceptualize the PLN by making links between the CoP conceptual framework and Activity theory framework.

**Format:** Paper presented in a Symposium (340)

# Cups, plates, apples, cookies & chickens in children's everyday lives: Cultural history or materialsemiotics?

Michail Kontopodis *(University of Sheffield)*

My presentation draws on materials from long-term ethnographic and participatory research on everyday eating practices in a variety of educational settings, such as preschools, urban allotment gardens and countryside fields in Europe and Latin America. Challenging relevant scholarship on cultural mediation and embodied cognition, I will argue that agency and intentionality are translated and distributed over relational networks and multiple temporal layers that bring together people and things in intertwined material-semiotic entanglements. Such entanglements may entail "healthy" children's bodies, "fresh" fruit, "plastic" cups, "expensive" freezers or cookers as well as "public health" guidelines and "pedagogical" knowledge and values. In such a perspective "culture" is exactly about what it has always been: food-eating. What does such an approach imply for our understandings of subjectivity, human development and education?

**Format:** Paper presented in a Symposium (116)

# Social work and health services for men who have been raped by men, out of a CHAT perspective (165)

Hans Knutagård *(University of Gothenburg)*

Cultural-Historical Activity Theory (CHAT) deals with the development of human beings in a reciprocal relationship to each other and to their social, cultural and material context. Nevertheless, little of the published work regarding CHAT deals with human sexuality and its social construction as a specific research area. I am conducting research about men being raped by men in order to contribute an understanding of what interventions, especially from the local Social Work and Health Services perspectives, are effective in providing appropriate and timely help and support that these men need. Notions used in my presentation are masculinity/femininity, gender, sexuality, homosexual/sexual orientation/sexual identity, rape/sexual assault, prostitution/sex work, sexual script and shame. It is difficult to find discussions of these notions using the perspective of CHAT.

I would like to promote a discussion of these notions and their implications using CHAT as the basis for the discussion wherein I present my study as the starting point for interaction. The key findings of the study are that the men's needs from service providers appear to be linked to both the societal and the individual's views on masculinity, sexuality and homosexuality. Further, there appears to be a reciprocal connection between the society's lack of words and the respondents' vulnerability such that if the respondents have not acquired cultural tools from their historical context they cannot understand what has happened to them and how they might manage themselves to resolve their situation.

**Format:** Paper presented in a Paper Session

# Cultural-activity perspective on the person-centered approach and client-centered psychotherapy (035)

Veniamin Kolpachnikov *(National Research University Higher School of Economics)*

Person-Centered Approach (PCA) and Client-Centered psychotherapy (CCT) are analyzed from standpoint of cultural-activity theory of Lev Vygotsky. It is shown that PCA may be understood as a cultural way of being in the world. PCA applies to main features of culture and may be seen as a developing subculture in complex human culture. CCT is analyzed as a cultural psychotechnical system from positions of psychotechnical approach as a modern development of cultural-activity theory. It is shown that change of a client in the CCT goes in accord with laws of development of higher psychological formations and CCT is a cultural professional psychotechnical system, aimed at facilitating of personal growth, actualizing and well-being of the person.

**Format:** Paper presented in an Interactive Paper Session

# Community-based design research in local health care system (047)

Toshitake Komazaki *(Tokyo Healthcare University)*

This study aimed to clarify the development of activity in gathering space that we called "MINNANO HOKESITU" for residents and was drawing from our experience in 1 year of community-based design research. "MINNANO HOKESITU" taken by growing welfare consciousness of residents. I researched the participants in this space by using questionnaire method and the semi-structured interview method, within the framework of positioning theory in discourse analysis. This study found that this space characterized by "having a conversation that could be shared by participants in the same area lived", "beyond the footing whether they were 'participants' or 'hosts' ", "the space that atmosphere was relaxed can speak out freely and honestly".

**Format:** Poster

# The co-construction of knowledge through a class verbal interaction (107)

Rola Koubeissy *(Arab International Academy, Qatar)*

This study aims to understand the co-construction of knowledge during a verbal interaction between a primary teacher and her student. Drawing on historical-cultural approach, we analyzed a two minutes dialogue. The dialogue was a sixth-grade teacher supporting her new immigrant student during a math evaluation task in a French classroom in Quebec. To deepen our analysis, we referred to Cole's theory of mediation (1996) to clarify how the student interprets the use of tools during the interaction. In addition, we referred to Wertsch (1984) to explain the teacher's action in the student zone of proximal development; this concept is extended by the inclusion of the three theoretical mechanisms of situation definition, intersubjectivity, and semiotic mediation. Data was collected through class observation, audio recording, and interviews with both participants. Our findings showed that during the verbal interaction, the negotiation of meaning between the student and the teacher was incoherent: the teacher didn't have a complete consensus on the definition of the student's difficulty. From a Vygotskian approach, the teacher and the student interpret the situation differently, so the teacher's action in the student's ZPD didn't occur. This study argued that the co-construction of knowledge also refers to a social-historical context related to each of the participant's culture.

**Format:** Paper presented in a Working Group Roundtable

# Educational event of foresight and personal mapping of resources as mediational means in the process of individualization of education

Tatiana Kovaleva *(Moscow Pedagogical State University)* & Tatiana Yakubovskaya *(Moscow State Pedagogical University)*

In the context of the global trend of individualization of education, one of the insufficiently studied and difficult to approach is the issue of how and by what means it is possible to organize interaction with the child on the temporal aspects of processes of individualization. The concept of time becomes the necessary subject to study in connection with the issues of formation of the image of the future when considering how the image of the future begins to affect the understanding of the past and present, how to establish links between the future, past and present. In this presentation, we consider the problem of using the concept of time in the formation of the concepts of individualization and reveal the possibilities of cultural-historical theory (L. S. Vygotsky) to solve developmental challenges of pedagogical activity for tutors. In the context of cultural-historical theory teacher can organize the work with students according to different time vectors: "present - past", "the future - now", "present - future - past". The efforts of the teacher will be focused on the choice of mediation means which are psychological tools and resources of the child and determine the development of higher psychological functions that are necessary for a person to understand the resources and the limits of his or her educational path in relation to the various vectors of time: 7 individual educational trajectories, the individual versions of the educational program and holistic individualized education program (IEP). In this presentation, we will discuss specific formats of educational activities, such as educational foresight-events and personal-resource mapping, which play systematizing role in the practice of education individualization. In terms of the key provisions of the cultural-historical theory educational foresight events and personal-resource mapping are aimed at stimulating the process of learning, that is, to overcome the deficit of experience of self-dependent and productive activities, avoiding the formal and fictitious learning outcomes in relation to the problems of personal perspectives and future.

**Format:** Paper presented in a symposium (177)

## Cultural-historical approaches to graduate teaching assistant preparation, instruction, and identity (268)

Bruce Kovanen *(University of Illinois at Urbana-Champaign)*

The present study responds to a problem in teacher development: why do teachers so often chose to ignore theory about teaching and composition when they teach writing? My study aims to complicate the current emphasis on composition practicums in the field of writing studies and the trope of the resistant teacher by incorporating the activity of mentorship and mediational means teachers employ in order to trace how new GTAs come to learn how to teach and how they become teachers. My focus here is on one participant, Nicole (a pseudonym), and her experiences learning to teach in an English Department in the Midwest.

**Format:** Poster

# The sense and the meaning of cultural-historical theory of L.S. Vygotsky (426)

Elena Kravtsova *(Russian Academy of Education)*

L.S. Vygotsky's principal idea, lying in the base of cultural-historical theory, is the primacy of sense over meaning. There are serious reasons to believe that this part of cultural-historical theory was not completely understood both by his disciples and his opponents. That's why many Vygotsky's conclusions and discoveries remained untapped, while others were implemented in science and practice quite differently from what he suggested.

Vygotsky once wrote that features of the particular science deeply related to its method. That's why he introduced the experimental-genetic method (projective method in modern psychology), which allows modeling the processes of development.

One of the basic concepts of cultural-historical theory is the concept of "cultural development". A Cultural person, for Vygotsky, is the person, who can control not only their own behavior and actions but also their own psychic processes. On the one hand, modern psychology doesn't deny the role of volition in child's development. But on the other hand, the volition itself is typically understood as one's ability to submit to laws and rules. More than that – it's rather easy to create conditions where a person will submit to laws and rules, but it doesn't develop his ability to control himself.

In Vygotsky's opinion, there are natural psychic functions, which in the process of learning transform into cultural ones. In this context, the main goal of learning is to create conditions for developing person's ability to be the subject of his own behavior, activity and psychic.

**Format:** Paper presented in a Paper Session

# Help! In the transition to college

Philip Kreniske *(Columbia University and The New York State Psychiatric Institute)*

Studies indicate a complex developmental relationship between college adjustment and social media use (Ellison, Steinfeld & Lampe, 2007, 2011; Kalpidou, Costin & Morris, 2011). Despite, record enrollment rates only 11% of low-income and first-generation students earned a Bachelor's degree within six years, compared to 54% of the general population (Wine, Janson, & Wheeless, 2011). In light of this stark disparity, how can researchers and practitioners *help* support low-income and first-generation students in their transition to college?

To examine the relationship between the social affordances of the writing medium and first-generation college transition experiences, this work draws on the theory that positions writing as a social process (Daiute, 2010; Wertsch, 1991), and compares how two distinct contexts influenced the linguistic features of students' writing over time. In one context, students blogged and received comments, while in the other context students word-processed and received no comments. The current paper then analyzes the ways that low-income, first-generation students (*N* = 98) blogged or word-processed, their first semester in college experiences, and how they conceived of *help* differently depending on the media. Systematic qualitative and quantitative analyses of these natural language posts and comments indicated the bloggers used greater rates of cognitive expressions and intensifying language in their writing over time than students who word-processed and received no comments. However, the bloggers also wrote about help less frequently. These results suggest a complex relationship between the interactive features of the writing context and narrators' expressive writing over time.

**Format:** Paper presented in a Symposium (240)

# PERISCOPE: Relations and tensions between two communities of practice: researchers and school practitioners (296)

Chair : Thérèse Laferrière *(Université Laval)*

Rollande Deslandes *(Université du Québec at Trois-Rivières (UQTR),* Lucie DeBlois *(Université Laval),* Thérèse Laferrière *(Université Laval)*, Sandrine Turcotte *(Université du Québec en Outaouais (UQAC,* Catherine Larouche *(Université du Québec à Chicoutimi (UQAC)* & Denis Savard *(Université Laval)*

It is our belief that knowledge transfer is not a one-way process. It is also our belief that research is a practice in its own right. In our collaborative reflective analysis, Cultural-historical activity theory (CHAT) is applied to identify tensions between communities of practice that both want student and school success: a community of practice composed of researchers and a community of practice composed of school-based practitioners. The two communities of practice interact at local and multi levels at a number of sites and as a whole at the national level. We will present the relationships that have developed as well as tensions that have emerged, and ways we are attempting to overcome them. Doing so, we hope to gain insight into our own doings and span the frontiers of our transformative agency.

**Format:** Symposium

# How conceptual thinking develops: a replication of the Sakharov-Vygotsky Experiment in French

Philip Laflamme *(Université de Sherbrooke)* & Frédéric Saussez *(Université de Sherbrooke)*

The genesis of conceptual thinking and the factors at play in its inception makes it a topic of tremendous importance for educational sciences (Friedrich, Hofstetter & Schneuwly, 2013). Vygotsky's pioneering theory posited that words, as learned cultural tools, became psychological tools that "drove" the inner working and the development of conceptual thinking from infancy to adulthood (1934, 1997). This theory was largely based on experimental results derived from Sakharov's instrument, a game whereby participants were asked to categorize dissimilar objects according to nonsensical words. However important Vygotsky's contribution was, the experimental protocol underlying this work is quite unclear (van der Veer & Valsiner, 1994; Friedrich, 2012; Towsey, 2011). Moreover, the original experiment has never been replicated in a French-speaking context. Therefore, this study's main goal is to replicate and gain some perspective on the experiment Vygotsky and Sakharov designed to test the hypothesis that words play a significant role in the inception of conceptual thinking. Along these lines, we are also interested in assessing the validity and reliability of the Sakharov-Vygotsky device as a proper scientific instrument for such purposes. We will recruit 35 participants in the 1st, 2nd, and 3rd grades of primary schools in the city of Sherbrooke. The instrument will be identical to the original with the exception of being adapted to the French-speaking context. The experimenter will meet each participant and deliver the task individually. Each trial will be recorded on film and audio. The data thus collected will be further explored both qualitatively and quantitatively.

**Format:** Paper presented in a Symposium (087)

# Borderer spaces in the construction of learners' identities (151)

Chairs: Beatriz Macias Gomez-Estern *(Universidad Pablo de Olavide (UPO))* & José Luis Lalueza *(Universitat Autònoma de Barcelona)*

José Luis Lalueza *(Universitat Autònoma de Barcelona)*, Beatriz Macias Gomez-Estern *(Universidad Pablo de Olavide (UPO))*, Olga A. Vásquez *(University of California, San Diego)*, Lorraine Orozco *(University of California, San Diego)*, Jacob Alvarado *(University of California, San Diego)*, Sònia Sánchez-Busqués *(Universitat Autònoma de Barcelona)*, Marta Padrós Castells *(Universitat Autònoma de Barcelona)*, David García-Romero *(Universitat Autònoma de Barcelona)*, Virginia Martínez Lozano *(Universidad Pablo de Olavide)*, María J. Marco Macarro *(Universidad Pablo de Olavide)*, Dana Walker *(Professor, Culturally and Linguistically Diverse Education University of Northern Colorado)*, Catalina Calderón *(ICONK (International Corporation of Networks of Knowledge))* & Kris Gutiérrez *(University of California Berkeley)*

The main aim of this symposium is to show how different borderline experiences embedded in educative processes suppose not only cognitive changes but an important contribution in the construction of learners' identities. All papers develop processes where learning encompasses "the integration of cognitive and affective elements, which always presupposes the presence of emotions" (Daniel 2008, p. 43); illustrating what Vygotsky described as perezhivanie. In all, the borderline experience is provided by the learner's participation in hybrid settings where different cultural traditions intertwine. In the first three papers, the activity is La Clase Mágica Project (LCM), in its different and international mutations. Paper one focuses on how the foundational LCM has developed historically to create sustainable environments for learner identity construction in disenfranchised communities along California. The second paper concentrates on how LCM version in Bogotá works for reducing the gap between language knowledge of biodiversity that exists in vernacular identities and on a scientific-globalized level. The next paper discusses a service-learning experience on university students, using the concept of real learning as a framework to examine the process of identity change in Barcelona and Seville's 5D-LCM versions. The fourth paper shows how using TIC and radio production helps to build agency and new identities in minority children through innovatively combining micro-ethnography and sociocultural psychology with a semiotic focus. Our last paper introduces a more experiential and autobiographical account of a transition and turning point experience in the academic identity construction of the author.

**Format:** Symposium

# La Casa de Shere Rom and La Clase Mágica Seville as hubs for identity change in university undergraduate students

José Luis Lalueza *(Universitat Autònoma de Barcelona)* & Beatriz Macias Gomez-Estern *(Universidad Pablo de Olavide (UPO))*

In our paper, we will present a research project jointly run by Universidad Autónoma de Barcelona (UAB) and Universidad Pablo de Olavide of Seville (UPO). This research analyzes the identity processes undergone by university undergraduate students participating in the community-based projects La Casa de Shere Rom (UAB) and La Clase Mágica (LCM) Sevilla (UPO), both of them following the 5D and LCM teaching-research-intervention scheme. These projects were born out of a shared concern about social and school exclusion related to gypsy minority children in different undeserved areas of Barcelona and Seville. Up to the moment, 5D-LCM scholars have concentrated their attention mainly on the children participant's academic achievements as well as on how this contributes to social change and justice in relation to minority groups. Nevertheless, other agents as researchers´ or university students´ social and intellectual development have gone unnoticed in research production. Our aim is to understand how these students´ participation (Wenger, 1998) in the new hybrid activity settings that the projects are for them affect them as persons. For that, we draw from two academic traditions. On one side, to understand the macro social processes involved in the phenomena observed, a Service Learning approach provides us with a framework where the university is considered as a social agent in charge of, not only transforming reality but also educating active citizens. Secondly, we use Historic-Cultural Psychology to account for the learning processes that the students experience, not only in relation to acquiring theoretical and practical skills but also changing their position in the world, even modifying their own identities. For that, we inspire our work in the ideas of real learning (Simons, 2000, Van Oers, 2007, Meijers & Wardekker, 2003) and the Vygotskian (Daniels, 2008) concept of perezhivanie. We will present empirical quantitative and qualitative data obtained in both sites, trying to describe these developmental processes broadly.

**Format:** Paper presented in a Symposium (151)

# Exploring mediational means and psychological tools of learning and development in multiple international contexts (177)

Chair: Elina Lampert-Shepel *(Touro College)*

Elina Lampert-Shepel *(Touro College)*, Colette Murphy *(Trinity College Dublin)*, Marita Kerin *(Trinity College Dublin)*, Susan Courey *(Touro Graduate School of Education)*, Daniel Zalles *(SRI International)*, Charles Patton *(SRI International)*, Tatiana Kovaleva *(Moscow Pedagogical State University)* & Tatiana Yakubovskaya *(Moscow State Pedagogical Univeristy)*

The symposium will address the notion of mediation, distinguish the notions of mediational means (Wertch, 1998) and psychological tools (Vygotsky, 1982), and explore the relationship between them in the multiple contexts of learning. Although different in their nature, the terms "mediational means" and "psychological tools" have often been used interchangeably in current research studies and conceptualizations of cultural-historical practices around the world.

The notions of meditational means and psychological tools have been addressed by a number of scholars who work in the tradition of cultural-historical psychology and activity theory (Elkonin, 1982; Wertsch, 1995). Some focused on their role in the development of higher psychological functions. Others described their characteristics and the dichotomy of external-internal. In some rare cases, the focus was on their role in the process of the development of higher psychological functions.

There has been less attention and lack of research on the connection between mediational means as artifacts mediating external activity, and psychological tools as tools of the mind that mediate inner psychological processes and lead to the mastery of one's own behavior and the development of higher psychological functions. The presenters will discuss mediational means and psychological tools of the learning activity that leads to the development of higher psychological functions of reflection, theoretical thinking, and prediction. The discussion will focus on the types of mediational means and their potential in the development of psychological tools. The methodological approaches to the study of tool-mediated action, which include the experimental-genetic method, projective method, and qualitative research methodology will be addressed.

The researchers and educators from Ireland, USA, and Russia will engage the audience in a discussion of the recent research in multiple contexts of mediated activity in education. Grounded in Vygotsky's scholarship, it is our intention to discuss the difference between meditational means/artifacts of the activity and psychological tools and explore the transformational potential of some meditational means being transformed into psychological tools.

**Format:** Symposium

# The dialectics of societal, social, and psychological development: Vygotsky's legacy

Ines Langemeyer *(Karlsruhe Institute of Technology)*

It is a still striking fact about Vygotsky´s legacy that he built his theoretical concepts on deep insights into the dialectics of societal, social, and psychological development. As one can learn from Vygotsky's theory (particularly from his concept of the "zone of proximal development"), dialectics in these domains are dimensions of real relationships: parental, familial, educational, professional, or more generally, of any kind of cooperative relationship. Consequently, such dialectical processes can also be studied in relation to scientific and technological advances and challenges. In such domains, dialectical processes clearly change their patterns historically. An important object of study, therefore, is expertise (as it exists vis-à-vis particular domains) where expertise emerges not only as a form of personal knowledge but at the same time as a form of individual and professional life. Thus, expertise co-evolves with scientific and technological advances in society, but exists only through personal and personality development. There is no contradiction involved, then, in seeing more general forms of knowledge and expertise within the individual's personal way of knowing, contrary to everyday assumptions of a strict division between individual and society.

But how can we best understand what is essential to the genetic process of knowing (both as knowing how and knowing what)? And what genetic concepts are needed to fully grasp expertise, especially when a knowledge field (typically for modern societies) exceeds the individual's capacity to incorporate it in terms of knowing how and knowing what? In attempting to answer these questions, the paper argues that expertise is a form of cooperative intellectual competence which can be understood in terms of a developmental process known as "scientification of work" (Langemeyer, 2015, 2017). The paper explores the connection between this process and reflections on transformative agency, with particular reference to Anna Stetsenko's "transformative activist stance". In this way, the paper addresses the issue of how Vygotsky's legacy can be taken further in application to research into technological and scientific development.

**Format:** Paper presented in a Symposium (139)

# Language proficiency as symbol-making capacity: The case of a second language speaker

James Lantolf *(The Pennsylvania State University)*

As is well known, a fundamental principle of Vygotsky's theory is that humans mediate much of their social and psychological behavior via the meanings that are evoked through verbal signs. Vygotsky and Luria (1930) characterize signs as "symbolic actions" that are strongly related to "practical intelligent action." In discussing the rise of symbolic action in onto- and phylogenesis, Vygotsky draws an important distinction between verbal signs created in human social interaction and signals that are instinctual and are a primary means of "interchange or contact" in the animal world (Vygotsky, 1987). Although Vygotsky pursues the sign/signal distinction from time to time in his discussion of human/animal phylogenesis, Voloshinov (1973), in my view, carries forward the distinction that is relevant for linguistics in general and for applied linguistics in particular. Voloshinov observes that while signs are implicated in "the process of understanding," signals are implicated in "the process of recognition." He points out that in foreign language learning, "signality and recognition still make themselves felt … and remain to be surmounted." In this presentation, I consider the case of a second language (L2) speaker (M) who implicitly seemed to appreciate the distinction between signals and signs as he engaged in a series of verbal interactions designed by researchers to investigate his level of language proficiency. In one interaction, referred as "interview," M spoke in his L2, English, with a degree of grammatical accuracy that would have been recognized by language tester as displaying a high degree of proficiency. In the other interaction, referred to as "conversation," the same speaker produced highly ungrammatical speech, which would surely have been rated as manifesting a low level of proficiency. However, when considering the substance of the interactions, it is clear that in the interview M recognized that its goal for him was to produce a sample of accurate language, while in the conversation, which focused on religion, a topic of intensive interest for M, the goal was to engage in deep understanding. In essence, in the interview, M generated signals, while in the conversation he created symbols. From the perspective of the target language English, the symbols were ungrammatical in form, but they nevertheless conveyed genuine meaning and therefore manifested "practical intelligent action." To the extent that M produced accurate signals in the interview his performance would be rated as proficient. But how are we to rate M's performance in the conversation where he created meaningful symbols? I argue that as a symbol maker M was highly proficient, which means that we need to reconsider our understanding of proficiency that is based on signal generation and allow for a perspective that acknowledges symbol-making ability.

**Format:** Paper presented in a Symposium (079)

# The meaning counting for educational innovation. Reflections on dialogue and secondary gender and sexuality (234)

María Isabel Lara-Banda *(Sistema Educativo Estatal Regular (SEER), Mexico)*

The high school students, daily build their sexuality from relationships with themselves and others. At school, they are given a wealth of interactions through verbal and bodily dialogue. Sexuality is experienced at all times and is configured by means of symbols and meanings networks. In this investigation, the object of study is the meanings evoked by a group of teenagers in a high school located 45 minutes from the state capital. Ethnography has yielded traces of these meanings, unveiled in the records of observation, focus groups and interviews. The symbolic gender order in which adolescents live, the performativity of identities, subjectivities heteronormative discourses of school and family have created a complex to understand and comprehend the world we currently inhabit. The notion of sexuality understood as that which is founded by the influence of historical, cultural and social factors, which involves both a process of construction and deconstruction of meaning derived in how they manifest their sexuality crossed by gender. Some results presented here derive from these approaches, grouped in three empirical categories: gender "naturalized" the "domination" in creating emotional ties and the "power" of the discourse on the body of the other. Such findings are practical inputs for the start of an innovative exercise in that school, reflection, awareness, and consistency are evoked by the participants in the exercise.

**Format:** Paper presented in a Paper Session

# Exploring change in medical education and healthcare (376)

Douglas Larsen *(Washington University in St. Louis School of Medicine)*, Austin Wesevich *(Washington University In St. Louis School Of Medicine)*, Jana Lichtenfeld *(Harvard University Medical School)*, Anthony Artino *(Uniformed Services University of the Health Sciences)*, Ryan Brydges *(University of Toronto)* & Lara Varpio *(Uniformed Services University of the Health Sciences)*

Both medical education and healthcare delivery face complex challenges that require innovation and reform. Cultural Historical Activity Theory (CHAT) provides a means to identify and evaluate system innovations. The work-based education environment of medical education creates many contradictions as patient care and educational needs interact. We present our recent study using CHAT and knotworking to investigate a program of self-regulated learning and goal setting with third-year medical students as a starting point for discussion. In that study, we demonstrated how written learning goals that were shared with clinical supervisors could act as mediating artefacts that at times led to expansive learning as both students and supervisors used the written goals to create new ways of working together. In those cases, these collaborative efforts helped to reconcile the competing objects of a work-based education environment. The efficacy of the written learning goals to create expansive learning opportunities depended on whether students and supervisors chose to use their goals as their own tool or saw the goals as an externally imposed requirement. Through the exploration of this study and others in medical education and healthcare, this working group roundtable discussion will focus on identifying key CHAT research questions and the most effective research methodologies to investigate those questions in the medical setting. The use of mediating artefacts to address power, hierarchy, and agency as well as the competing objects created by educational and healthcare regulations are among the topics that will be explored.

**Format:** Paper presented in a Working Group Roundtable

# Exploratory playworlds: reconsidering the relationship between pretend play and exploration in early childhood education (057)

Robert Lecusay *(Jönköping University, School of Education and Communication)*, Beth Ferholt *(Brooklyn College)* & Monica Nilsson *(Jönköping University, School of Education and Communication)*

Preschools are increasingly focused on children's cognitive development and school preparation at the expense of supporting the development of children as whole persons, their subjectivity. Two preschool pedagogies that do not fall prey to this trend, and which have roots in Vygotsky's theories, are playworlds and the Reggio Emilia-inspired pedagogy of listening. In playworlds, children's pretend play is based on an understanding of children as creative. The pedagogy of listening does not focus on play, but understands children as engaged, reflective culture creators, and focuses on the creation of environments that afford children's exploration, a concept not theorized to the same degree as pretend play. In this paper we investigate the concept of exploration and exploratory play in relation to pretend play, and present our understanding of a preschool pedagogy that focuses simultaneously on play and exploration as sufficient for the growth of the whole person, that is, their becoming as a subject. We make this case by presenting two projects, drawn from an ethnography of three Swedish Preschools, in which children's play and exploration were both foci. We argue that these examples force us to rethink what children do in pretend play and in exploration, and how both pretend play and exploration are related to learning and growth. Emphasizing subjectivity, the introduction of scientific concepts and school-based learning should be reconsidered from a didactical perspective: What, when, and how will scientific concepts be useful in the life of the child and for the growth of subjectivity?

**Format:** Paper presented in a Symposium (037)

# Networking sites in social movements: communicating and transforming educational realities (032)

Monica Lemos *(University of Helsinki)* & Fernando Rezende da Cuhna Junior *(Vrije Universiteit Amsterdam)*

In this article, we analyse the use of Social Networks for the development of activities in social movements. We consider four intertwined movements, which were a combination of online protest, using Facebook pages, Occupy-type protest, in which students firstly occupied more than 200 schools, and demonstrations, which occurred in different cities of São Paulo and after in Rio de Janeiro. We analyse the activities involved in the movement under the Cultural-Historical Activity Theory framework, and we discuss how the notion of collaborative agency is important for the development of such a protest. As data, we use the content of one hundred twenty-two pages on Facebook related to the four movements. We performed a multimodal and network analysis of the data in order to understand how the movement developed which results were obtained by the students. Our findings suggest that by acting collaboratively, students were able to reach satisfactory results from their protests. In addition, they expanded the activities in their groups on Facebook to other contexts, like organizing events in their schools or using them for other social movements.

**Format:** Paper presented in a Working Group Roundtable

# Developing emotional consciousness in teachers through a professional development program

Anne Lessard *(Université de Sherbrooke)* & Chantal Poulin *(Université de Sherbrooke)*

In the context of a research program aimed at studying classroom interactions in high schools, 45 teachers and their students were filmed for two to four periods over the course of a school year (Lessard & Poulin, submitted). Although the data was initially collected and analyzed in a post-positivist paradigm, it was revisited using cultural-historical activity theory. As part of the professional development program, the researchers met the teachers for entry and exit interviews. Audio data was also collected each time researchers met with teachers to provide feedback on videotaped classroom interactions (2-4 times/year). The program integrated, on the inter-psychological level, coaching mediated by instruments to facilitate the teachers' learning of new means of promoting emotional support for their students. Results from this study show how this program contributed to help the teachers to gain perspective on their own actions and with regards to the role played by emotions and the importance of emotional support in the learning process. It is particularly important in this context where teachers interact with students showing learning difficulties. This praxis showed the importance of the relationship between the motivational sphere of consciousness and the learning process. The coaching solicited both tools and instruments to raise teacher consciousness with regards to this relationship. Results show how teachers progressively reused instruments learned through the course of the coaching activity in their interactions with their students to promote learning. The link between coaching and teaching activities will be discussed.

**Format:** Paper presented in a Symposium (118)

# Activity theory and the anthropocene (176)

Chair: Alex Levant *(Wilfrid Laurier University)*

Alex Levant *(Wilfrid Laurier University)*, Anna Stetsenko *(The Graduate Center, City University of New York (CUNY) (New York, NY, United States))* & Bonnie Nardi *(University of California, Irvine)*

The announcement of the Anthropocene – the current epoch of geological time – in which the impact of human activity on the planet represents one of the most significant intellectual challenges of our time (Angus, 2016; Moore, 2016; Bellamy Foster, 2016; Wark, 2015). The increasingly acute human impact on the planet, alongside new technologies that have blurred the boundaries between human and non-human, have inspired a new body of research across the social sciences. The proposed symposium seeks to situate Activity Theory (AT) in the context of this scholarship.

AT's focus on human activity speaks uniquely to this body of thought. Specifically, AT's turn to material social activity situates this tradition in close proximity to the 'material turn' in contemporary philosophy. The material turn refers to recent theoretical trends that depart from poststructuralism while building on its critiques of Enlightenment conceptions of the human (Braidotti, 2013; Barad, 2007). It is comprised of a broad range of theoretical currents, including new materialism (Dolphijn, 2012; Barad, 2012, 2003), actor-network theory (Latour, 2005, 1995, 1992), and postphenomenology (Rosenberger, 2015; Ihde, 2010; Verbeek, 2005), among others.

Similar to these approaches, AT also signals a turn to matter. However, it offers a different type of materialism – one that grasps the materiality of human activity as a "special reality" (Ilyenkov, 2012). This symposium is timely because it situates AT in dialogue with these new directions in philosophy, and offers a fresh perspective on "how matter comes to matter" (Barad, 2007).

**Format:** Symposium

# The challenges for conceptual learning: Examining the role of teachers' 'subject positioning' for creating conditions for children's development at group-time (283)

Rebecca Lewis *(Monash University)* & Marilyn Fleer *(Monash University)*

The importance of conceptual development in play-based early childhood education is well-established in Australian and international research and policy.  However, many popular Early Childhood pedagogies (e.g. Emergent/Inquiry Curriculum, Reggio Emilia) place the teacher in an 'under position'.  This study examined different forms of subject-positioning used by teachers to create the conditions for development during group time.  As part of the first author's Ph.D. study, this first phase included digital video recordings of two teachers interacting with 24 children (mean age 5.2 years) during group time and subsequent play.  Six hours of video observations were analysed using Kravtsova's (2009) Cultural-Historical concept of subject positioning to explore pedagogical practice.  This paper focuses on the tension around the teacher's role and how teachers position themselves in relation to the children.

Findings suggest that for teachers practicing pedagogies based predominantly on children's interests, ideas and theories, placing the teacher in the 'under position', it is difficult to create the conditions for children's conceptual development.  The role teachers were required to take to document children's voices was also found to be a factor that created a preference for the 'under position'. We argue that varying the subject positioning creates the conditions for concept development and makes conceptual learning more conscious.  This study contributes to an understanding of the relationship between the subject positioning of the teacher and the conceptual learning of children in the Early Childhood Education context.

**Format:** Poster

# A child's shared cultural knowledge: positioning practices of educator, family and community (110)

Chair: Liang Li *(Monash University)*

Discussant: Marilyn Fleer *(Monash University)*

Liang Li *(Monash University)*, Gloria Quinones *(Monash University)*, Avis Ridgway *(Monash University)* & Marilyn Fleer *(Monash University)*

This study forms part of a larger project 'Studying babies and toddlers: Cultural worlds and transitory relationships undertaken with ethical approval in Australian long day care settings'.

When considering the child and environment relations in their development, Vygotsky (1998) has criticized the traditional psychology that ignores the child's social and cultural environment in their development. He has argued that it is important to investigate how children learn and develop their knowledge focusing on their surrounding reality and the dynamic changes in their lives. We aim to understand how toddlers build cultural knowledge in everyday life through educators and families' awareness of their social situation of development. The visual narrative methodology that combines research transcripts with image data is used. The research team engages in reflective interviews prompted by visual and textual data. Three researchers provide different but complementary perspectives from one case example of a long day care educator who enters a shared play scenario with a small group of toddlers. We each examine the same data set by using Fleer's (2015) concept of pedagogical positioning, Bozhovich's (1981) concept of motivational sphere and Vygotsky's (1994) concept of the environment respectively. How the educator mediates the toddlers' play scenario by taking their perspective to build collective knowledge is discussed throughout the symposium. We argue that toddlers co-construct cultural knowledge through expressive play activities with peers, family and educators. This implies that when the educator's awareness of toddlers' cultural interests, home and community life is holistic, new knowledge develops.

**Format:** Symposium

# Educators' pedagogical awareness and positioning in toddlers' play

Liang Li *(Monash University)*

The research reported here is part of a larger project which studies babies-toddlers' cultural world and transitory relationships. The research question of this presentation relates to how an educator engages in toddlers' play. This presentation particularly draws upon the concepts of Vygotsky's (1966) play and Fleer's (2015) pedagogical positioning to explore how an educator places himself while he plays with a small group of toddlers and how the educator supports their imagination and learning. Visual narrative methodology and reflective interviews have been applied to analyse one play episode. This play episode includes one male educator (Juan) and a small group of toddlers including the focus child Luci, in a long day care centre in Australia. This example showcases the educator and toddlers collectively engaging in what we have called "Noisy Neighbours" play. This paper foregrounds a wholeness approach in its analysis of toddler's everyday life that is evidenced in their imaginary situation within play context and explores the educator's pedagogical positioning in toddlers' play and his professional awareness of young children's everyday life. This paper highlights the importance of educators taking an active role in toddlers' play through supporting collective imagination to achieve collective knowledge construction. The findings have implications such as the need for the educator to be an active player in dramatising the flow of the play event and inviting toddlers to enter the play and extend the play narrative. Furthermore, this presentation shows educators need to be aware of toddlers' everyday family and community knowledge. This led us to think about how families are influenced by child-led parenting.

**Format:** Paper presented in a Symposium (110)

# The bearing of cultural elements on digital activity: EFL teachers' perception of computer-based matriculation oral language test reform (024)

Li Liang *(Guangdong University of Foreign Studies)*

Among the worldwide trend of the application of Activity theory in the educational arena, there have been few attempts to examine the interaction between the teachers' perception and the historical-cultural elements in the face-to-computer high-stakes matriculation language testing, although college acceptance issues have been one of the top priorities all around the world. This article reports a case study on the face-to-computer matriculation EFL oral proficiency test reform in Guangdong (Canton), China. The goal of this research is to investigate the interaction between historical-cultural elements and high school EFL teachers' perception of the testing reform on teaching and learning to provide the face-to-computer language testing designers some practical implications and suggestions for future development. Two hundred and twenty-three high school teachers in twelve high schools took a survey with closed and open-ended questions. It is found that the testing reform received a major acknowledgment for its necessity and impacts on teaching. Six principal obstacles to this reform are identified. Furthermore, change in tools alone will not suffice in our educational reforms assisted by computers. This article also discusses the often-overlooked construct---cultural elements in the testing context in this case study for a possible further expansion of AT theoretical framework.

**Format:** Paper presented in a Paper Session

# Argumentation in critical collaboration at the DIGIT-M-ED Project

Fernanda Liberali *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Fernanda C. Liberali (Pontifical Catholic University of São Paulo, Brazil), the third presenter, discusses "Argumentation in critical collaboration at the DIGIT-M-ED Project", expanding the discussion on language organization to learning and development. As she points out Critical Collaboration (Magalhães, 2001, 2010, 2014) is understood as ways to create with language (Holzman, 2009: 40). Departing from a socio-historical-cultural tradition, based on ideas developed by Vygotsky and followers, this research relies on collaboration as a process of participation in the collective construction of living (Stetsenko, 2008; Viana and Stetsenko 2011). In the critical perspective we adopt, collaboration is understood as a process of creating, sharing, designing, evaluating ideas. It involves deliberately making joint decisions (Magalhães 2011) through a process of critically reflecting on social-cultural-historical and political issues, interweaving the social and individual processes through language. In this perspective, conflicts and different positions are valued and creating common notions is a means for strengthening everybody's power of acting (Liberali 2013). The role of critical collaboration emphasizes the process of participation in the construction of new possibilities of becoming (Newman and Holzman, 2013). It implies understanding, completing, expanding, contradicting others as well as being understood, completed, and contradicted by others (Liberali 2013b). It focuses on multimodal resources for the articulation of different points of views, supports, counterarguments, conclusions and/or deals. Therefore, Critical Collaboration involves not only jointly working with others but also organizing dialectical relationships. This presentation focuses on the DIGIT-M-ED – Brazil Project, designed to enable critical collaboration among the different participants involved in dialogue in meetings, workshops, and virtual loci made available by apps such as WhatsApp and software such as Skype. This project includes a group of principals, coordinators, teachers, students and researchers, all working as teacher educators responsible for triggering school transformation and community development. In order to do that, argumentation is seen as an essential form of discursive organization to trigger this process. In this presentation, data from eight workshops organized during 2015 as well as from virtual apps will be used to exemplify ways in which argumentation can help understand movements towards Critical Collaboration. The data to be presented reveals the ways in which participants move towards a more open-minded, respectful, multivoiced, multicultural and creative way of working together.

**Format:** Paper presented in a Symposium (100)

# Desencapsulated Agencies: the development of students' mobility (260)

Fernanda Liberali *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

This presentation aims to discuss the development of the agencies of the deaf and hearing students involved in a project with researchers, coordinators, supervisors, principals, teachers, and interpreters of sign language to build transformative curriculum proposals. It focuses primarily on the disruption of representational limits and the promotion of new forms of being; i.e., on creating foundations for the development of mobility. According to Blommaert (2014), mobility involves using the experiences of a space-temporal context as a basis for the construction of new possibilities of acting and producing meanings in different socio-cultural and historical contexts. It also aims to promote discourses in which the agencies (Freire, 1970; Stetsenko, 2015; Vianna; Stetsenko, 2011; Edwards, 2007, 2011; Engeström, 2006, 2011; Virkkunen, 2006) of the involved ones can be revisited, transformed and desencapsulated. This presentation will focus on the roles assumed by students in the construction, development and evaluation of curriculum proposals for school development. Methodologically, this presentation is oriented by a Critical Collaboration Research Paradigm (Magalhães, 2011) in which all participants work together in the process of creating realities and making meaning out of them.  The data generated from a roundtable and interviews with a group of students from different schools was generated by means of video recordings during the DIGIT-M-ED Hiperconnecting Brazil Project in 2016. The multimodal materials analyzed show that students overcame the encapsulating social, academic, age and hearing conditions they were preconditioned to and dared to act and to be beyond their limits.

**Format:** Paper presented in a Paper Session

# Scaffolding historical inquiry through a collaborative maker-based activity (442)

Benjamin Lille *(Université Laval)* & Margarida Romero *(CRIRES (UL) / Laboratoire d'Innovation et Numérique pour l'Education (UNS))*

Teaching strategies in history education could influence the development of learners' competencies. Lecture-based approaches on historical knowledge have limited potential in developing students' historical thinking and critical thinking competencies while historical inquiry has been argued to be an efficient way to develop these skills. Engaging in historical thinking development through inquiry is, however, a complex and difficult process for novice students as they will potentially face didactic and cognitive limits. We wish to contribute to the didactics of history literature in proposing scaffolds for historical inquiry through a collaborative maker-based activity combined with a knowledge building (KB) tool. Considering computer-supported collaborative learning (CSCL) literature to design collaboration, we argue that core mechanics of a sandbox videogame, 3D printing and maker culture can offer scaffolds in collaborative historical inquiry as they present congruities with cognitive operations required in historical inquiry. As interventions aiming innovations in an activity system are induced by existing contradictions, we rely on Engeström's (2001) expansive learning framework and change lab methodology that focuses on contradictions to analyze the implementation of our maker-based activity in a high school history class.

**Format:** Poster

# The Scientific Culture as a synthesis among interactions of activity systems: a preliminary study (117)

Guilherme Lima *(Federal University of Ouro Preto)* & Marcelo Giordan *(Faculdade de Educação-Universidade de São Paulo)*

In this paper, we aim to discuss the scientific culture from the perspective of activity theory and to understand it as a synthesis of activity systems resulting from interactions between other activity systems. To build up a proposal for the scientific culture activity system, we suggest three systems: science production; scientific communication and scientific education. Our results highlight that the scientific culture can be understood as a complex of relations between activities motivated by several factors, which extend from the production of new reality interpretations to cultural transmission through the media or school.

**Format:** Paper presented in a Working Group Roundtable

## The politics of play in a culture of fear (111)

Chair: Carrie Lobman *(Rutgers University)*

Carrie Lobman *(Rutgers University)*, Elena Boukouvala *(Play is Hope)*, Yuji Moro *(Faculty of Human Sciences, University of Tsukuba)*, Shuta Kagawa *(University of Tsukuba)*, Jody Boston *(Under the Willows)*, Ruth Pickering *(Under the Willows)*, Jorge Burciaga *(The Fred Newman Center)*, Miguel Cortes *(The Fred Newman Center)*, Cristina Meaney *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Feliciana Amaral *(Stance Dual School)*

From the influx of refugees into parts of the world where people are already angered by diminishing resources and growing income inequality, to the failure of education systems to transform to meet the needs of children in the current century it has become painfully clear that the options currently available to humanity are inadequate to the problems we face. Fortunately, as Vygotsky points out, "If human activity were limited to reproduction of the old, then the human being would be a creature only oriented to the past and would only be able to adapt to the future to the extent that it reproduced the past" (Vygotsky, 2004, p. 15). We are a species that is capable of more than reproduction or even adaptation to the current conditions, we are, through imaginative, creative, playful activity, capable of creating something new out of what currently exists. Around the world, there are scholars, practitioners, and activists who are using play in innovative ways to tap into the human capacity to create even in the face of instability and fear. This symposium will locate the relationship between play, performance, human development and societal transformation within the socio-cultural methodological and theoretical framework. This will be followed by presentations by performance activists and scholars from six countries who have been participating in creating what has come to be called the performance movement.

**Format:** Symposium

# An activity theory approach of personal information management of educational resources by secondary school teachers (169)

Magali Loffreda *(Laboratoire STEF de l'ENS de Cachan)* & Eric Bruillard *(Advisor, Laboratoire STEF ENS-Cachan)*

As part of a Ph.D. dissertation, we propose to look at how individual teachers of secondary school manage educational resources through the filter of the theory of activity. This theoretical framework is relevant to help us analyze the tensions and dynamics at stake for teachers, and thus better understand the evolution (both artifactual and cultural) of teaching practices, on a personal level and on a more general level.

**Format:** Paper presented in a Paper Session

# Exchanging safety's value: stories of workers' survival in hazardous work environments (068)

Ramo Lord *(Walden University)*

Daily, many workers find themselves performing their daily job responsibilities in a hostile work environment. Workers must address the continued contradictions of working safely in a culture of sustained and unaddressed safety violations. Press releases from the Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA) reveal workplace accident investigations that showed the root cause being grounded in employer-related issues. Further, OSHA and MSHA have issued repeated citations to myriad employers for previously cited violations not corrected causing increased risk of worker safety. In spite of several employers being tagged as a repeat offender, OSHA's findings, as disseminated in their news releases, illustrate how employers' negligent - sometimes repeated, willful, and serious - safety practices have led to tragic outcomes.

The study's findings showed where safety programs were by-passed for production. Workers being subjected to such environments learn to perform their daily responsibilities by navigating the hazardous terrain through the creation of a safety culture to return home safe. This is where the workers have co-constructed job practices and environment survival to increase their chances of leaving work safe and healthy. This replaces the employers' safety program from many workers perceiving the program as just "lip service."

**Format:** Paper presented in a Working Group Roundtable

## Activity systems and STEAM: dialogues on building a new curriculum in Science Education (282)

Mariana Lorenzin *(Universidade de São Paulo/ Colegio Bandeirantes)* & Alessandra Bizerra *(University of São Paulo)*

Science Education can be considered one of the most common challenges in the 21st century to improve equity and equality. Taking this fact into account, school education must deal both with the basic knowledge as well as with the decisions about all the possibilities of applying the theories to practice. By proposing interdisciplinary units, the cultural-historical perspective emerges as a possibility to innovate the traditional curriculum, originally separate in specific disciplines. Inspired by the Maker Movement, STEAM proposes an organization of a curriculum in Science based on projects that integrate the Science, Technology, Engineering, Arts and Mathematics. The interdisciplinary nature of STEAM represents a possibility to motivate students towards science learning in order to discuss technical procedures, share information, deal with technology, working in group, develop critical thinking and create solutions for their context problems. From principles of the Activity Theory, this paper intends to analyze the activities of teachers involved in planning and implementing a STEAM curriculum to High School, in a Brazilian private school, finding the contradictions that emerge in that process.

Motivated by students' education as the main activity in the system, the tensions and contradictions during the STEAM curriculum planning are related to the option to interdisciplinary education in science or the fragmented education in disciplines, the new students and teachers' roles in the classroom and the classroom's design to develop projects.

Their negotiations will reveal attributes and changes in practices that can promote the expansion of this local experience for different contexts.

**Format:** Paper presented in a Working Group Roundtable

# Co-creating transformative activity in the anthropocene: Re-framing processes in expansive learning (173)

Heila Lotz-Sisitka *(Rhodes University, Environmental Learning Research Centre)*

The Anthropocene ushers in new conditions for the continued flourishing of all life forms, including human life as we currently know it. We urgently need forms of activity that have the power to address pernicious contradictions arising at the people-planet-profit nexus meaningfully. Despite vast and sophisticated bodies of knowledge of the crises and risks associated with these contradictions, it remains inordinately difficult for people to learn together to co-create transformative activity oriented towards sustainability and the common good. This paper critically explores formative intervention led expansive learning research processes as developed in CHAT by Yrjö Engeström (1987 - 2016) and colleagues for addressing this problem. The paper is constituted as a meta-analysis of sixteen in-depth expansive learning case studies undertaken in a diversity of contexts in six southern African countries (Zimbabwe, South Africa, Malawi, Lesotho, Mozambique, Swaziland) where people are seeking to escape the impacts of modern institutional exclusions, and build more sustainable, socially just communities and livelihoods oriented to the common good. The meta-analysis shows how transforming complex objects of activity via expansive learning in these contexts involves the following reframing processes:1) complex and multi-layered navigations of deep-seated power relations, 2) ethics deliberations, 3) unearthing and mediating dimensions of cognitive and epistemic justice, and 4) engaging the decolonizing dialectic of absence and emergence. These reframing processes appear to be critical for the emergence of emancipatory forms of transformative agency and are proposed as important new themes for CHAT formative intervention research in the Anthropocene era.

**Format:** Paper presented in a Paper Session

# Mediating young children's language and thinking: A sociocultural lens on cognitive development (066)

Chair: Daniel Lovatt *(University of Auckland)*

Daniel Lovatt *(University of Auckland)*, Bo Zhou *(University of Auckland)*, Janet Gaffney *(University of Auckland)*, Joanna Williamson *(University of Auckland)*

Mediation of young children's learning and development is a complex interplay of intersubjective, interpsychological interactions within culturally derived sign systems (Vygotsky, 1987). Aotearoa New Zealand's early childhood curriculum framework Te Whāriki (Ministry of Education, 1996) positions learning and development as socially mediated by "people, places and things" (p. 9) within holistic and often non-structured, playful experiences. From this perspective, teachers, children, dialogue, resources and environments are considered mediating tools for extending young children's language and thinking. The name Te Whāriki translates as 'woven mat', illustrative of the curriculum's integrated, holistic, and open-ended design intended for individual early childhood settings to weave curriculum experiences responsive to their particular place and people. The sociocultural enactment of Te Whāriki requires that adults understand the complex notion of mediation within their contexts.

This symposium explores Vygotsky's concept of mediation through three qualitative case studies considering the complex roles of adults and context in mediating young children's language and thinking towards 'higher mental functions' (Vygotsky, 1997). Early findings will be presented, focusing on the use of language as a mediating tool in early years contexts.  The case studies are:

1. Mediating teaching strategies that support young children's development and knowledge creation about science, technology engineering and mathematics (STEM).

2. Conceptual mediation through an exploration of how teachers might frame concepts for children's conscious consideration during storybook reading and extra-textual talk with young children.

3. Language and literacy mediation of young Chinese children in New Zealand across the two activity systems of home and early childhood centre.

**Format:** Symposium

# Refining and enriching children's working theories: A trialogical approach

Daniel Lovatt *(University of Auckland)*

The first paper explores children's working theories, a holistic learning outcome from Te Whāriki. Working theories combine knowledge, skills, attitudes, expectations and strategies and can be thought of as children's early conceptualising of the workings of their world. This paper presents working theories from a unique perspective, that of being three-fold: outcome, process, and interpretive framework leading to further learning. Using this perspective, I argue that working theories align with the theoretical concept of trialogy, where learning is the creation of new knowledge formed by focusing "on collaborative development of mediating objects or artefacts rather than monologues within mind or dialogues between minds." (Hakkarainen & Paavola, 2009, p. 67). This paper focuses on one metaphor of learning that has been positioned within trialogy: knowledge building (Scardamalia & Bereiter, 2003), foregrounding conceptual entities, ideas and theories that are both valued by, and are valuable for a community. Knowledge building occurs collaboratively to create, develop, understand and criticise conceptual artefacts. I argue that working theories can be considered as conceptual and knowledge artefacts and therefore as mediators of learning. Knowledge artefacts include a three-fold view of concepts: as a tool, as a process, and as an object or entity (Paavola, Engeström & Hakkarainen, 2012). Similarly, I argue that a cultural-historical perspective affords positioning of working theories as knowledge artefacts: process, outcome and interpretive framework of further information and experiences. Therefore, working theories can be viewed as mediational tools in the mind of both individuals and collaboratively in groups within early childhood communities. I will present preliminary findings from a qualitative case study investigating early childhood teachers' strategies that might enrich and refine children's working theories about STEM subjects. The study is in-process in two early childhood centres in Aotearoa, New Zealand, using observation and video-recording of teacher interactions with individual children and with groups of children. The findings will be framed through two models being developed in this project. First, building on Wells' (1999) spiral of knowledge, a model of children's working theories as a 'spiral of working theories' incorporating the aspects of ongoing refinement and enrichment, and viewing working theories as process, outcome and interpretive framework. Second, building on the theoretical concept of co-construction (Valsiner, 1994) and further, Siraj-Blatchford's (2006) notion of sustained shared thinking, I present a model of teaching interactions as a 'shared learning commitment' which I have coined to represent knowledge building occurring through deliberate choices by teachers (or peers) to engage with children to co-construct enriched working theories together. Both models incorporate mediating aspects such as new information, new experiences and collaborative knowledge building. These models might provide insight both into teacher's strategies that foster and enrich working theories and furthermore, a model for teachers to consider in their own practice.

**Format:** Paper presented in a Symposium (066)

# Prepositions as locators across war space and time

Luka Lucić *(Pratt Institute)*

Space and time are basic categories of human existence. Yet, empirical research in contemporary developmental psychology often takes these categories for granted, giving them common sense or self-evident attributions. Rarely is their meaning for, and relevance to the process of socio-cognitive development addressed.

Employing the dynamic narrating approach, the present study explores how 16 individuals who as young people grew up during the four-year long siege of Sarajevo make sense of their experience twenty years following the conclusion of the Bosnian war. Participants wrote to three narrative prompts that direct their sense-making process to three distinct phases of their development: 1) the prewar, 2) the acute war, and 3) the postwar phase.

Data analyses aim to show that space, time, and physical environment get enacted in language through the varied use of *prepositions* in narrative response across the three phases. Prepositions are sets of words that indicate place (*near, beside, above*), location (*at, in, on*), time (*since, during, after*), direction (*to, onto, into*) and spatial relations (*across, along, toward*). While their role in narrative is to introduce necessary spatial-relational information, hence orienting the reader through the narrated space, the use of prepositions also has the potential to reveal important information about the process of cognitive development as they point to narrator's understanding of place, direction, location and time in narrative action. Results reveal that participants employ prepositions significantly more frequently to make sense of the acute war phase than either the prewar or the postwar phase.

**Format:** Paper presented in a Symposium (240)

# Child personality reconstruction through role adjustment crises during transition to school within a bi-cultural context (048)

Junqian Ma *(Monash University)*

Crises are perceived as a danger which needs to be avoided or cleared to make children's transition smooth among empirical studies. Practices based on those findings tend to remove both challenges and potentials in child development. It is urgent to overcome such linear understanding and to disclose the true essence of development through crises. Drawing upon cultural-historical concepts of "crises", "social situation of development", "perezhivanie", and "general genetic law of cultural development", a case study of three second generation Chinese Australian children is conducted, lasting from the last kindergarten term to the end of first school term, involving 72 hours of observation and 8 hours of interview. Unit of analysis and dialectical-interactive approach are adopted. "Role adjustment" and "perezhivanie" are used as the unit to analyse transition process and social situation of development respectively. Data are analysed from different perspectives (i.e. kindergarten, school, family, and child) and three levels (i.e. common sense, situated practice, and thematic). Based on the analysis, a model is presented to explain how child personality is in an ongoing reconstructing process through crises during transition.

**Format:** Paper presentation on PhD Day

# Transitions from preschool to primary school

Junqian Ma *(Monash University)*

This study investigates the dramatic process of child role adjustment during the transition from kindergarten to primary school within a bicultural context. The findings are generated from a longitudinal case study and presented as a model. The model explains how different children with their unique social situation of development qualitatively reconstruct and develop their personality through dramatic collisions on both social plane and individual plane in adjusting to/of different roles during transition.

**Format:** Paper presented in a Symposium (128)

# The epistemological relevance of Peircean pragmatism for Vygotskian semiotic mediation (082)

James Ma *(University of Oxford)*

This presentation derives from a manuscript prepared for the ISCAR-affiliated journal Mind, Culture, and Activity. It concerns the author's research project on the Peirce-Vygotsky co-articulation of signs, the first phase of which was reported in 2014 in this Journal (21/4, "The synergy of Peirce and Vygotsky as an analytical approach to the multimodality of semiotic mediation"). The epistemology of Peircean pragmatism emphasises the life of the mind as integral to the making of human existence, in particular, the social, perceptual and logical nature of knowledge that determines the meaning of intellectual concepts by virtue of cooperative and open-ended endeavours. In challenging the methods of tenacity, authority, and apriority, a Peircean vision of scientific inquiry elicits a new discourse upon the affordance of public meaning in knowledge construction. This, in turn, provides a rationale for developing further insights into Peircean semiotics, with specific reference to the self-perpetuating function of semiosis and its implication for addressing the cross-over of diverse modes of meaning in modern-day communication and representation. Premised on the fusion of deduction and abduction as a conceptual primer, it is argued that the intertwining of icon, index, and symbol within Peircean secondness can come into play in Vygotskian semiotic mediation. This brings with it a tour d'horizon for the semiotic connectivity of language, meaning, and consciousness – a central tenet of cultural-historical activity theory for understanding human interactions with the world. The presentation thus offers fresh perspectives on advocating semiotic methodology gleaned from the epistemological confluence of Peirce and Vygotsky.

**Format:** Paper presented in a Paper Session

# Towards a cultural-historical theory of motivational development: Taking a 360 view of the motivation landscape (377)

Judith MacCallum *(Murdoch University)*

Within cultural-historical approaches to learning and development, motivation is under-theorised. In contrast, motivation theories are at the forefront of mainstream educational psychology. In Thinking and Speech, Vygotsky touched on motivation arguing that thought had its origins in the motivating sphere of consciousness, but his ideas remained undeveloped. In this paper, I take a 360 view of motivation theories to contribute to a cultural-historical theorisation of motivational development.

Two lines of theorisation related to motivation in current cultural-historical approaches are Hedegaard's work drawing on Leontiev's activity theory and motive, and Gonzalez-Rey's reinterpretation of Vygotsky's early and late works on subjectivity. For Gonzalez-Rey, the concept of motive as treated in activity theory is too static an entity to function in propelling behavior. He focuses on the unity of personality and environment, and the generative nature of emotions and proposes a definition of motivation as a unit that integrates emotions, intellect, and action. Hedegaard also reiterates the importance of forces both in the person and the environment that gives rise to how the person relates to the world and how this relation develops.

In the paper, I unpack each of these theorisations of motivation and explore how they inform, contradict and enrich each other. I also examine potential contributions from social-cognitive motivation theories (incorporating concepts of achievement/social goals, individual/situational interest, intrinsic/extrinsic motivation, self-schema) particularly those tackling change or development.

The discussion will focus on the value of theorising motivation and its development, what changes and why, and how we might better support children's motivational development.

**Format:** Paper presented in a Working Group Roundtable (WGRT)

# Development of psychological protocol of assessment and monitoring for the pre-lingual deaf adult indicated for the cochlear implant (108)

Lesle Maciel *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

The objective of this research is to develop a protocol of psychological assistance for the deaf adult individual who wants the Cochlear Implant procedure, that enables him to listen. In order for this appliance to generate an adequate hearing response, the individual needs an auditory memory. The pre-lingual deaf, a person who was born deaf and who has not developed this memory, needs a specific service to enable the creation of this relationship with the world of sound. The hearing health program in Brazil includes formalized protocols in the medical and speech therapy area, and there are no guidelines for psychological field work with the subject who wants to make use of the Cochlear Implant. The creation of this protocol is to fill a gap in the area, aiming at a comprehensive care that the subject has a broad understanding of their current condition with regard to their little or no experience with sound. The method used was the qualitative analysis of records of three subjects that was attended between 2006 to 2009 at a hospital in Curitiba-PR, Brazil. Two subjects had psychological counseling before and after implant surgery, and a third had standard monitoring (speech therapy and medical). The results indicate that the psychological counseling increased the identification of sounds with meaning in the lives of participants. They began to identify sounds that allowed them greater autonomy in life, for example, leave alone the street, to hear the front door of their houses being opened.

**Format:** Paper presented in a Working Group Roundtable (WGRT)

# Subjectivity, child development and emergency oral language (314)

Cristina Madeira-Coelho *(Universidade de Brasília)*

Traditionally, studies on child development have a fragmented perspective as the study of the importance of mother to child development or studies of how one's action affects the other. Studies on language acquisition follow the same pattern. In this study, we seek to understand how the unity individual creation / social joint transformation is established in communicative social contexts of a child, Pê, with atypical development, who has delay in speech and language development. We assume an integrating perspective of human processes in a theoretical and epistemological approach in which the individual is not limited to effects from the external environment. This theoretical perspective is called Theory of Subjectivity in a Cultural-Historical Perspective (González Rey, 2000, 2005, 2015), in which subjectivity is historically situated as the specific quality of processes and human phenomena inseparable from the person living conditions, although it is not a direct and linear expression of these conditions This theoretical approach is methodologically supported from the principles of Qualitative Epistemology. The research occurred throughout the year when the boy attended speech therapy sessions. The role of the other and of the affect in the direction for this other; an extraversion characterized by openness to new experiences; the security and confidence that are organized by the stability of family relationships that favor the expression of his individuality; the emotional stability that organizes security for facing new situations can be understood as the set of subjective senses Pê organizes to face communications impasses.

**Format:** Paper presented in a Working Group Roundtable

# Educational memory and senses of learning: the construction of a documentary as subjective reconfiguration (315)

Cristina Madeira-Coelho *(Universidade de Brasília)* & Tamine Cauchioli Rodrigues *(Secretaria de Educação do Distrito federal)*

This research was conducted from within a pedagogical project developed throughout the year 2013 in a fifth-grade classroom of an Elementary Public School in Brasília, DF. Young students aged between 9 and 12 years-old produced with their teacher a video documentary called "Our history in the school". The project's goal was to recover student's educational memory. In order to understand the singularity of learner's subjects in their processes of recovering educational memory, we opted to use the Theory of Subjectivity in a Cultural-Historical Perspective (González Rey, 2002) as the theoretical basis. Group's autonomy in decision-making and dialogical interactions, through which tensions, contradictions and disagreements were settled, were main aspects of the video documentary production. These aspects bind to the principles of the Qualitative Epistemology (González Rey, 2005), that is, the interpretative-constructive principle, the dialogical guidance and the orientation to singularity in knowledge construction; principles which organized the research methodology. In this way, in addition to oral instruments that allowed conversational dynamics throughout the process, other instruments, such as child's play, school activities and interviews were created by the group to characterize their process of schooling. The opportunity was given to students to decide what to do in planning and executing the script and the filming of their school lives allowed the emergence of learner subjects who configured new subjective senses, as symbolic and emotional productions, about the process of learning and the school itself.

**Format:** Paper presented in a Paper Session

# A historical-cultural approach to sustainable development education of undergraduate students

Raymond Madrigal Perez *(Universidad de Ciego de Avila)*

Environmental Education should be a continuous and ongoing process which constitutes one of the dimensions of the undergraduate's comprehensive education (Santos, 2010). This education is aimed at producing knowledge but also at developing habits, skills and attitudes related to creative processes. It is however often forgotten that it is also about supporting the elaboration of values that take into the harmonization of relationships among human beings as well as their relation to the rest of Society and with Nature. This is of the utmost importance in order to conciliate the orientation of economic, social and cultural processes with sustainable development. To contribute to the sustainable development of the university, teachers, students and other educative agents need to perform, together, a historical-logical analysis (Vygotsky, 1978) of the environmental problems generated from each profession. The mediation of this analysis, acting as a dialectical interaction, may lead to a level of thinking which brings about a change of thought (Buysse & Vanhulle, 2009) and provokes a comprehensive process allowing the student to develop a new system of values that encompasses a consciousness of his or her responsibility regarding the economic, technological, psychosocial, cultural and spiritual transformations generated by the professional practice (Madrigal, 2014). It also allows for the elaboration of a system of historical, technical and methodological knowledge that enables the student to contribute to the change of patterns of production, distribution, and consumption of material and spiritual values. This is related to the development of a capacity to design, plan and implement the professional activity, founded on the ethical premises that the material and spiritual production of mankind should be grounded in the finite nature of the natural resources, the existence of limits in the biosphere in its capacity to absorb the waste of human activity and in the identification of truly social needs.

**Format:** Paper presented in a Symposium (087)

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# Communication for Co-operation: the dynamic of language, communication and cognition within collaborative activity (100)

Chair: Maria Cecilia Magalhães *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Maria Cecilia Magalhães *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Peter Jones *(Sheffield Hallam University)* & Fernanda Liberali *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Marx understood the 'social' to mean 'the cooperation of several individuals, no matter under what conditions, in what manner and to what end'. However, the implications of this position for our understanding of the nature of language and its role in collaborative practices have yet to be fully explored within the CHAT tradition. The aim of the three communications in this symposium is to consider the relevance of the concept of collaboration to an analysis of the contribution of linguistic communication to the situated co-construction of knowledge. Building on Vygotsky's treatment of language organization as a fundamental factor in collaborative-critical knowledge construction, this symposium focuses on how the processes - collaboration and co-operation – contribute, but contribute differently, to the active transformation of existing social environments, as well as to the creation of new ones. More specifically, we show that language organization is responsible for the creation of contexts for collective critical collaborative negotiation in shared knowledge production. To this end, we attempt to demonstrate the necessity of conceptual clarity on the diverse roles and implications of collaboration and cooperation since these concepts are a common focus in research on social activity, working practices, teaching and learning, social cognition and linguistic and psychological development, and are also seen as holding answers to fundamental questions about human socio-cultural and political constitution, and to critical learning and development. The symposium sets out to approach these issues from different and complementary theoretical and empirical perspectives.

**Format:** Symposium

# (Multiple) types of collaboration: implications for our understanding of dialogue and the development of participants development

Maria Cecilia Magalhães *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Based on Vygotskian discussions, the second presenter, Cecília C. Magalhães (Pontifical Catholic University of São Paulo, Brazil) discusses "(Multiple) types of collaboration: implications for our understanding of dialogue and the development of participants development". The focus is on the variety of different views of collaboration usually presented or aspired to in school contexts. The paper outlines the main characteristics and assumptions of these views in relation to their role in maintaining or transforming pedagogical and social values and examines, in particular, the ways in which linguistic communication is organized in different schools to contribute to such value-transforming collaboration. The paper argues that the different ways of organizing linguistic communication in support of collaboration may enable either (a) a "comfortable" relationship (Fullan) based on a culture of individualism that cannot break through professional alienation, since teachers, principals, and students are isolated and reciprocally neglected, or (b) as 'Critical Collaboration' - a construct central to this presentation - which is grounded in the collective experiences by which human beings are constituted and constantly transformed and, at the same time, actively transform their contexts of action. The language of Critical Collaboration is thought to describe a process of building with others, working together in understanding and transforming themselves, others and the world (Magalhães). This has been the basis for the work developed by the Research Group 'Language in Activity in School' since Magalhães' Doctoral dissertation in 1990. In this type of research, the role of critical collaboration emphasizes the process of participation in the construction of new possibilities of becoming.

**Format:** Paper presented in a Symposium (100)

# Subjectivity and Education in Physical Sport's Practice, New Approach to Health and Performance (238)

Jonatas Maia da Costa *(Professor at University of Brasilia(UnB))* & Laura Rojas Vidaurreta *(Phd Student at University of Brasilia (UnB))*

This proposal defends the thesis that hegemonically Physical Education and Sport Psychology researches suppress subjectivities production related to the development process of knowledge in the health field and high-performance sports. The consequences of this omission are the principal reasons that led the routing of the theoretical discussion stimulated from two studies conducted according to the epistemological guidelines of Subjectivity Theory into a cultural-historical perspective. A dialogue is proposed between the scientific research developed into the Brazilian physical education frame and the Cuban sports psychology research. Both methodological processes had in common the approximation from a unique point of view where a singularity and the idea of a subject protagonist of his life let think in subjectivity as a human production, which is possible to study in the sports field and link with health.

From this fact, it raises a specific concern about the absence of the subjective processes in the completion of scientific ideas and notes, although such studies seem to be produced taking into account the individual analysis. The criticism drops on the methodological components and epistemological concepts that began to fail in relation to subjectivities production of the subjects involved. Furthermore, this approach presents information from two case studies guided by Qualitative Epistemology, one in mental health researching space and the other, in high performance sport.

**Format:** Paper presentation on PhD Day

# Building on Lindqvist's aesthetics of play and fairy tales in an Australian playworld

Sue March *(Monash University)*

The international trend to emphasise learning over play in early childhood education suggests there is a need to advance on Lindqvist's original playworlds pedagogy for new cultural contexts. Lindqvist's (1995) pedagogy of play is anchored in Vygotsky's conception of play (1933/66) and art (1925/71). Foundational to Vygotsky's aesthetics is the social nature of consciousness. Through linking emotions to thought, "the aesthetics get a new role in the process of consciousness" (Lindqvist, 2003, p.246). Human relations are central to the emergence and formation of consciousness, which is largely "an attribute and characteristic of the collective" (Zinchenko, 2009, p.51). But more needs to be known about how social consciousness develops in joint adult-child imaginary situations (playworlds) and, reciprocally, how social consciousness develops the "aesthetic patterns and progression of play" (Lindqvist, 1995, p. 213). Vygotsky's term for early forms of social consciousness, such as that between a mother and baby, was "pra-we" consciousness. Lindqvist noted how the youngest children were "mainly responsible for creating the basic atmosphere" (1995, p. 106). The "basic atmosphere" is conceptualised in this study as a "pra-we" collective consciousness (the unit of analysis). It focuses on the way in which "pra-we" consciousness develops in playworlds environments, initially as an emotional relation between people. This supports the play itself to develop and to develop in complexity. This presentation reports on a study of how teachers and children jointly developed a "pra-we" consciousness during a six-week playworlds project in an Australian childcare centre. The 25 children in this multi-age group were aged between 1.8 and 5 years. 60 hours of video data were collected and analysed using Fleer's (2014) three iterative layers of analysis. In particular, the role of fairy-tale aesthetics in this process is examined. It is argued that a deeper appreciation of Lindqvist's work on the aesthetics of play and fairy tales will help early childhood teachers to introduce playworlds pedagogy into Australian preschool contexts and develop the complexity of their joint play with children. This study makes a contribution to the understanding of "pra we" collective consciousness as a unit of analysis in cultural-historical theory.

# Learning and development in a digital culture: an analysis based on Michel Freitag

Stéphane Martineau *(Université du Québec à Trois-Rivières)* & Alexandre A. J. Buysse *(Université Laval)*

For over two decades now – and even more so in the last ten years – our societies have taken a digital turn which translated in radical changes in all levels of human activity. These changes also affected education, in which digital technology spreads quickly to the point where mastering a certain level of technological procedures is part of the training of all Quebec teachers. However, digital technology is not only a tool to learn or teach: digital technology deeply alters the way we learn. These changes have of course been documented, but analyses have often concentrated on the achieved results without taking into account possible developmental outcomes. Discussions have often been tainted as well by underlying tenets totally in favor of or opposed to the digital turn. Michel Freitag – a Quebec sociologist who passed away in 2009 – investigated this problematic, as no-one had ever before, by questioning digital age and its influence on learning in the wider frame of the evolution of society (1995, 2002). In his analysis, he discusses not only the social and cultural aspects of this change but also the epistemological and ontological underpinnings and consequences of this sudden evolution. His work reveals that a more fundamental change is under way in our ways to think knowledge and to relate to the world, behind the invasion of our societies and of our schools by the digital technology. Our presentation aims at presenting Freitag's thought about the global effects of digital technology on learning and on the development of the human being in a social and cultural, thus political, perspective. We also propose to explore how sociocultural activity theory (Leont'ev, 1978; Vygotsky, 1978), through the link between activity and consciousness, or between tools and mind, can help us understand and operationalize Freitag's views in the field of education.

**Format:** Paper presented in a Symposium (087)

# Retriving memories and analyzing narratives from the socio-cultural approach in a community of Mexico (419)

Miguel Angel Martínez *(Universidad Nacional Autónoma de México, Campus Iztacala)* & Ana Elena Del Bosque *(National University of Mexico)*

In this research, we go to the backgrounds of the notion of sense of belonging from a historical-cultural perspective, regarded as identity, basic dimension for a person's development; process which goes configuring as zone of sense and as subjectivity configuration which turns out to be strongly related to community organization processes, at the community of Huitzilac, Morelos, Mexico.
We are working on the retrieval of the historical memory upon the narratives that older people tell us, as part of their lives stories. On the idea that collective memory is a form of memory which transcends the individual and it is shared by a group, we conceived it as referred to three entities: a body of knowledge, an attribute, and a process.
We think memory as an individual matter; we have found out by talking to senior people, that they reconstruct certain events of the past, which is the content of their experiences and young people can learn from them.
Our purpose is to retrieve historical memory from the elder, so we can show young people the true origins of their identity, since they moved to the city falling in a rootless process. During the exercise of telling stories, older people reconstruct their memories, and we get information that can help younger to find out what has become of their identity.
We have videotaped several interviews with older men who have told us about the origins of the community, going as back as to the Aztec stories.

**Format:** Poster

# Contributions of CHAT and DSE to the field of bilingual special education (328)

Patricia Martínez-Álvarez *(Teachers College, Columbia University)*

The field of bilingual special education (BiSPED) surfaced in the early 1970s as a result of the need to attend to the growing number of children in the U.S., who spoke a language other than the English at home and were identified as having disabilities. Even though the field is relatively new, those working to elucidate this area of need in today's education systems have already recognized the urge to create a specialized body of knowledge that would attend to surfacing historical tensions in BiSPED. Unfortunately, while the number of children whose needs are situated within BiSPED in the U.S. keeps growing, the field is largely underdeveloped. Thus, there is a need to develop strong theoretical foundations. This presentation is an effort to elucidate how researchers and educators in BiSPED could consistently employ third generation Cultural Historical Activity Theory, and theories within Disability Studies to continue to expand the field of BiSPED onto yet unknown horizons. In this presentation, I describe the constituents of the three elements that best overlap across both theoretical perspectives, and explain their latent potential to strengthen the BiSPED practice. Namely, the integrated elements discussed in the presentation are: a) The mediation by society and dialectical approaches in BiSPED; b) The role of power, agency and volitional actions to expand BiSPED individuals' opportunities to participate in the learning activity and develop; c) Collective exploration that promotes transdisciplinarity as multiple BiSPED activity systems seek a partially shared object. The presentation summarizes implications and suggests future research directions.

**Format:** Paper presented in a Paper Session

# From darkness to light: gender relations and continuous discovery of sexuality through selfknowledge (188)

William Martins de Cavalho *(Universidad de Margarita (UNIMAR))*, Talita Vendrame de Oliveira *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Karla Cristina Rocha Ribeiro *(Universidad de Margarita (UNIMAR))*

The affective-sexual experiences of the individual are still the site of many family, social and religious controversies. Discussing sexuality and gender-relations is still taboo during certain times and in specific places, and the self-knowledge is a slowly and sometimes painful process. The purpose of this research is to discuss the possibilities of living sexuality and resume heteronormative concepts that hold back the role of individuals. The method used was the hermeneutic experience of critical analysis of a movie, which is based on the Critical Screen project of Giovanni Alves. This method proposes a union between historical psychology and cinema, which aims to use the film work as a means of critical reflection on the hegemonic heteronormative world instituted. Through the film Free Fall, an analysis of the context lived by a police officer and the possibilities of their affective-sexual experiences was established. In the film, we can see the different ways of living sexuality, the difficulties provided by social impositions, as the protagonist lives in a hegemonic heteronormative society, and is also visible the dialectics experienced by the character before new experience's possibilities. It was observed that the possibilities to question the decisions hitherto rigid and heteronormative are many, allowing awareness of those who live the same dialectics, therefore, the individual becomes a subject of his life process and he allows to be true to himself, carrying his inner self, always seeking to be happy with his choices, achievements, social and affective-sexual experiences.

**Format:** Poster

# Adults' orientation of children—And children's initiative to pitch in—to everyday adult activities in a Tsotsil Maya community

Margarita Martínez-Pérez *(University of Sciences and Arts of Chiapas (UNICACH))*

The initiative of children to participate in activities that are valued in the community's daily life occurs at an early age and it starts with actions that involve other participants, who "break down" the tasks by means of an interactional sequence that is supported by different communicative resources that characterize the Mayan Tsotsil culture of this study. This study examines how 2-year-old children attempt to participate actively in adult work in a Mayan community and how adults contribute and accommodate the contributions. As children enter into activities, adults orient and reorient them to direct the children. Teaching from expert to novice is generated by children's agency in co-participatory interactions. This study shows how children become agents of their own process of socialization and are actively contributing to the acquisition of culture, both at cognitive and social levels. It also enriches LOPI by focusing on the structure of participation and communication, social and community organization, and the evaluation of the child's efforts that occurs in activity itself. The data come from video recordings of natural interactions and is based on longitudinal, ethnographic, and linguistic research. A focal Family and Four Complementary from Ichintón Families in San Juan Chamula, Chiapas, Mexico.

**Format:** Poster in a Poster Symposium (077)

# PISA (Programme for the International Student Assessment) in Brazil: the production and transformation of the future (097)

Márcia Aparecida Amador Mascia *(Universidade São Francisco)*

This abstract concerns the production of subjects in education for the 21st century. It argues that the external assessment, PISA (Programme for the International Assessment), is establishing a "new" regime of truth regarding subjects in education that will be understood as discursive practices of tension between success and failure. The corpus consists on the discourses of PISA on the website of the Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP) in Brazil. The methodological framework is the Discourse Analysis and Vygotsky's theory considered through the perspective of expanding the theoretical background of critical pedagogy which is presented as social transformation, especial in the Brazilian context (Manolis, 2015, p. 25). The findings of the analysis point to the production of a future generation conceived as global citizens. In relation to Brazil, what PISA does is only give international visibility to the problems we already know, it does not give a solution. Otherwise, it can mask them. I finish by urging that every nation (not economy), every school, every teacher should ask and try to answer or, at least, pursue, throughout their lives, the question of what kind of school, of nation, of society he/she wants in an ethical way. I agree with Rogoff's (2003, p. 12) understanding of human development from a sociocultural perspective: in different ways and recognizing the value of the knowledge of specific cultural communities. Internal or external assessments are, as everything in education, a matter of ethics, a matter of social transformation, in Vygotsky's thinking.

**Format:** Paper presented in a Paper Session

# Mediational tools from practices of tutors acting as research supervisors in online education (090)

Luciana Massi *(Universidade Estadual Paulista (UNESP))* & Marcelo Giordan *(Faculdade de Educação-Universidade de São Paulo)*

Supervisor's role and function represent an increasing field of interest and study, especially due to their substantial responsibility in the development of research. However, little is known about how supervisors develop their work and how they could have been trained or assisted to improve their supervisional practices from a theoretical point of view. The aim of this study was to identify and analyse the mediational tools adopted by tutors in a supervision activity system (SAS) from online education. We present a systematic and quantitative analysis of a complete questionnaire, containing 11 questions answered by 27 tutors, after one year of supervision activity. To produce a quantitative and qualitative analysis we created 16 categories pointing to mediational tools, which lead to a total of 393 references in the entire data. The mediational tools in this SAS allowed us to identify some tensions and contradictions: 1) writing was a tension between tutors and students but also served as a register of the supervision process and a way to promote writing during the entire process of supervision; 2) the collective orientation proposed by the course coordination was successful in creating a community of practice for the tutors but wasn't effective in the group of students from each supervisor. Based on this analysis and the tutor's words, these tensions may represent possibilities of expansion to the SAS from the online to the onsite context.

**Format:** Paper presented in a Working Group Roundtable

# The social construction process of "unruly youth" from delinquent youth who have "Neurodevelopmental disorder" (120)

Hideaki Matsushima *(University of Shiga prefecture)*

In Japan, a number of recent crimes committed by young people diagnosed with a "neurodevelopmental disorder" have been garnering media attention and eliciting unnecessary anxiety in the general public. Reports of such cases must balance the risk of overemphasizing the notion that juvenile delinquency is a consequence of individual deficits with that of underemphasizing the processes underlying the development of "delinquent" behavior or the need to design appropriate interventions. This presentation is based on interviews with clinical staff members at the national residential care facility for delinquent youth. The interviews were designed to elicit narratives about how staff members verbally express the relationship between residents' behavioral problems and their disorder (e.g., Autism, ADHD). Our analysis of the data produced the following results. First, regardless of their level of relevant training, staff members rarely described residents' behaviors in neurodevelopmental terms. Instead, they tended to attribute their success to their own level of professional development and/or to the effectiveness of a milieu approach for changing socially unacceptable behaviors and beliefs. Specifically, they reported that it is important for the staff to welcome youth problem behavior as a sign for a chance to propose proper intervention. Their communal living situation allowed staff to easily be aware of youth's problem, and to protect vulnerable youth from bullying. The term "neurodevelopmental disorder" tended to be used when the training and practical experience of staff members were viewed as ineffective. These findings underscore the availability of alternative approaches to helping delinquent youth with "neurodevelopmental disorders".

**Format:** Paper presented in a Working Group Roundtable

# On 'Das Kapital' of Science Education: Methodological Issues from a Vygotskian Perspective (301)

Cristiano Mattos *(University of São Paulo)*, Juliano Camillo *(Federal University of Santa Catarina)* & André Machado Rodrigues *(University of São Paulo)*

The relevance of Vygotsky's approach to Science Education is revealed by the increasing number of publications based on it, which brings us significant contributions to understand, for instance, classrooms dialogue, teaching and learning processes, school curricula and educational reforms. However, many aspects of the Vygotskian theory within Science Education field remain undeveloped, essentially those related to methodological aspects in a critical perspective.

Drawing from Vygotsky's notion of "method" and his efforts to build a scientific theory about human development, committed to the transformation of reality, we engage here in the discussion about methodological issues in Science Education. We give insights to overcome current approaches in which reality is conceptualized as immutable (outside of human activity) and cognition as a process of mere adaptation to it, which establish a dualism between the reality (on the ontological level) and the ways we come to know (on the epistemological level).

Vygotsky claims for a "Das Kapital" of psychology, arguing that psychology needs to develop its own object of investigation and a particular method to grasp it. It means that neither the object nor the method have independent existence. Likewise, the engagement around a "Das Kapital" of Science Education brings us new and powerful insights to investigate Science Education aspects that have not been effectively grasped by current research; namely, the relation between Science Education and Human Development. This includes the possibility to build a project of society instead of justifying teaching and learning science based on abstract notions of skills for the future.

**Format:** Paper presented in a Working Group Roundtable

# Cognitive Development in Adolescents Engaging in Subject-Focused Education (402)

Elena Matyushkina

An experimental study of the effects of the subject-focused education on the cognitive development of the ninth-grade adolescent students took place in two city schools (two classes focusing on Physics and Mathematics; two classes focusing on Natural Science), and a special education school (the closed type).

The study relied on the assumptions of the cultural-historical theory developed by L. Vygotsky regarding cognitive and personality development in adolescence:

- thinking is humans' specific theoretical activity resulting from transforming the external practical activity into the internal, ideal form;
- the transition to conceptual thinking lays the basis for personality development in adolescence; mastering conceptual and logical thinking contributes to transforming cognitive and other mental functions and processes;
- adolescence is a crucial stage for the development of creativity due to an approximation of thinking and creativity and their convergence within a creative process.

The main findings showed that:

- The students of the Physics and Mathematics classes actively shaped mathematical thinking and spatial representations. However, their ability for mental image synthesis (relevant for generalization of scientific data) remained underdeveloped;
- The students of the Natural Science classes efficiently developed conceptual and categorical thinking, although the development of mathematical and creative verbal thinking was slightly inhibited.

Thus, the subject-focused education contributed to the strong development of most general, abstract types of thinking, which was nevertheless accompanied by an inhibition of some manifestations of creative thinking. Furthermore, the authors found a direct relationship between the functional structure of thinking in senior adolescence and the educational content and environment.

**Format:** Paper presented in a Paper Session

# Pre-service teachers understanding and mediating scientific concepts: learning and teaching based on scientific concept formation (147)

Francisco Mazzeu *(University of São Paulo State)* & Luciana Massi *(Universidade Estadual Paulista (UNESP))*

This paper's goal is to discuss an experience conducted with 100 student teachers at a Brazilian university from August to December of 2015. The data was analyzed on the basis of Historical-Cultural Theory, and the main goal is to reveal the difficulties of these students understanding scientific concepts related to "stars' origins" as well as their difficulties to comprehend Vygotsky's approach of concept formation. The subjects were divided into small groups and asked to answer scientifically the question "why do the Sun and the stars exist?" They were also required to make a class plan suggesting how to teach this issue to a 7-9 years old student. Based on the three phases of development of concepts (syncretism, thinking by complexes, abstraction), described by Vygotsky, we identified evidence of "thinking by complexes" in both: the understanding of stars' origins and the comprehension of concept formation. Comparing two groups (G3 and G6), we found more evidence of this type of thinking in the G3 group. Considering that scientific concepts are essential to transforming the structure of everyday concepts, advancing from complexes to real concepts, teacher education needs to produce a deeper understanding of the nature of scientific concepts and their interface with students' conceptions. Thus, the reported experience shows how difficult it was for pre-service teachers to assimilate and put into practice this approach.

**Format:** Paper presented in a Working Group Roundtable

# Digit-M_Ed, Sao Paulo, Brazil

Cristina Meaney *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Feliciana Amaral *(Stance Dual School)*

For the participants of the LACE Research Group in the Applied Linguistics Department of the Pontificia Universidade de Sao Paulo (PUCSP/Brazil), especially those involved in the Digit-M-Ed Project, the concepts of play and performance have become familiar and have been used in multiple contexts and projects. Performance has been and still is used to bridge the gap between curricular contents and the real world. Thus, enabling learning to be lived and embodied rather than just understood.

Digit-M-Ed meetings are organized to deal with controversial topics. Performances are used to trigger discussions about them as well to convey the knowledge produced in the process. At Stance Dual School, where participants Feliciana Amaral and Cristina Meaney also work, the teachers' room was recently split during the political crisis lived in Brazil, and an atmosphere of animosity was created among teachers. Play and performance became key instruments to address this and other controversial issues during teachers' development meetings. While working with students, performance was used in many different activities with different didactic purposes. For instance, students were asked to perform the role of different characters in stories they had read or to ask curious questions about a classmate's vacation, as ways of exercising otherness.

**Format:** Paper presented in a Symposium (111)

# The struggle for racial and ethnic identities in a transformative community of activist learners

Francisco Medina *(Graduate Center, CUNY)*

This presentation addresses the dialectics of affirming and rejecting racial and ethnic identities as tools to bridge learning and development among students participating in the Peer Activist Learning Community (PALC). Despite minority students constituting a large segment of the student body in most urban community colleges in New York, race/ethnicity are not often discussed in course curricula, and when they are discussed, this often happens in isolation from learning. Plagued by identity questions related to race/ethnicity and perplexed by the contradictory nature of these concepts, community college students are left to their own devices to make sense of racial and ethnic issues. This paper describes how participants collectively developed an agenda to address these issues through critical-theoretical learning (Vianna & Stetsenko, 2011; Rifino, Matsuura, & Medina, 2014), implemented as weekly discussions and academic readings from a plethora of socio-cultural theories on race and ethnicity at the intersection of class, culture, and colonialism. As a result, students began to challenge their own preconceived notions, stereotypes and narrowed understanding of race. This paper focuses on how critical-theoretical learning about race/ethnicity impacted the trajectories of Latino students as it increased participants' awareness of their struggle to develop racial/ethnic identities amidst pressures to assimilate to mainstream White-American culture, distance themselves from racial struggles, and endorse a colorblind rhetoric. In particular, I discuss common shared struggles for ethnic/racial identity identified by participants, namely (1) the rejection of race as a way to avoid stereotypes, (2) the construction of race and ethnicity in limited and damaging ways, (3) cultural poverty arguments and self-defeating discourses, and (4) alienation from the Eurocentric practices of the college. In conclusion, I will argue that activist racial/ethnic identities are centrally connected to learning and development, specifically to how students positioned themselves toward education and social justice.

**Format:** Paper presented in a Symposium (270)

# An applied sociocultural model to promote children's learning in non-school ways (200)

Rebeca Mejia-Arauz *(Western Institute of Technology and Higher Education (ITESO) University)*

In this paper, I describe the development of an applied sociocultural non-school model that has been tested during the past three years and which has the purpose of promoting relevant learning for everyday life of young children. The model is socio-culturally situated for the populations addressed, according to the interests and motivations of children's age and actual characteristics and needs of development, and in particular, in a non-school style.  It started as a model focusing first on literacy. However, it included math in everyday practices, and eventually, other aspects emerged such as the development of agency in children. The literacy model follows the cultural paradigm of Learning by Observing and Pitching in (Rogoff, 2014; Rogoff, Mejía-Arauz Correa-Chavez, 2015), the concept of assisted performance (Tharp & Gallimore, 1988) and funds of knowledge (Gonzalez, Moll, & Amanti, 2005), as central to the style of interaction involved in promoting children's literacy practices. Results show important changes in children beyond their involvement in reading and writing and included other areas of development such as socio-emotional as well as the development of agency. This interconnection of areas affected is interpreted following Zaretskii´s (2009) idea of multiple vectors involved in the ZPD.

**Format:** Paper presented in a Paper Session

# Collaborative work or individual chores: The role of family social organization in children's learning to collaborate and develop initiative

Rebeca Mejia-Arauz *(ITESO UNIVERSITY)*, Maricela Correa-Chavez *(California State University, Long Beach)*, Ulrike Keyser *(Universidad Pedagógica Nacional)* & Eva Itzel Aceves Azuara *(University of California Santa Cruz)*

We present a study that focuses on how children in some communities learn about family and community endeavors as they collaborate and become involved in everyday activities in their communities. We analyze how parents promote collaboration and learning to collaborate at home in an Indigenous and in a non-Indigenous Mexican community, and examine variations among parents with different extent of experience with schooling and concepts regarding child development and relate them to patterns of child collaboration at home among Mexican Indigenous and urban families. Drawing on interviews with P'urhépecha mothers in the community of Cherán, Michoacán, and urban middle class mothers in the cosmopolitan city of Guadalajara, Mexico, we argue that the social nature of participation may be a key feature of learning to collaborate and pitch in in families and communities where school has not been a central institution of childhood over generations.

**Format:** Poster in a Poster Symposium (077)

# A case study of participatory budgeting as a democratic activity system: Using CHAT/DBR to identify expansive learning (252)

José Meléndez *(University of Illinois at Chicago - Honors College)*

This ethnographic case study focuses on the Latino immigrant community's civic engagement in Participatory Budgeting in Chicago's 49th Ward (PB49). The research focuses on how the PB49 process mediated participation, and how those modes of participation mediated learning in practice. The research questions are: 1) What was the nature of civic engagement of Latino immigrant participants in PB49? 2) What was the dialectic between the (designed) environment and civic engagement? And 3) What was the nature of expansive learning in this context?

The study uses a Cultural Historical Activity Theory (CHAT) design-based research (DBR) interventionist framework, situating the designed environment and civic engagement in dialectical relation with one another. The analysis shows expansive learning taking place in the PB49 process as it evolved over three iterations, changing the collective civic engagement of participants and the bearing of participants' practices on the development of the activity system. This study contributes methodological, conceptual, and policy insights on how to study, identify, and describe adult civic learning in democratic activity.

**Format:** Paper presented in a Paper Session

# Literacy practices of the children and their mothers in specific social and cultural context and online spaces (322)

Juana María Méndez Guerrero *(Education Department of the State Government in San Luis Potosi, Mexico)*

The focus topic of my Ph.D. dissertation is the literacy practices of the children and their mothers in a specific social and cultural context in San Luis Potosí, Mexico. I present the approximation of elements in this analysis and reflecting moment.

The children spoke about their different experiences with their mothers around the literacy practices in the context and online spaces in everyday life. The main problem is the disconnection between the aims of the school and the literacy practices outside the school (Lerner, 2004), joints it and orients to development. The principal question is: How to reorganize the teaching and learning process by taking into consideration the children and their mothers in their context to generate new literacy practices to orient them to development?

The research context is vulnerable. In order to deepen understanding, Ester and Magdalena collaborate because both mothers triggered the process of empowerment and generated new literacy practices.

The research is qualitative with ethnographic perspective and interactive analysis. Collection techniques were participant observation in the classroom, households and social context of the subject; informal talks; in-depth interviews and collection of written productions. The theoric concepts are social as a source of development, drama and intrapersonal process (Vygotsky, 1979) and empirical categories emerging about the empowerment and symmetrical relationship.

I situated the research in the Social Practice; in the ideological model (Street, 1984) and also in the cultural-historical approach because the development is inter-psychological and becomes an intra-psychological process.

**Format:** Paper presentation on PhD Day

# Exploring nontensions as common sense: Learning and enacting dominant ideologies in our everyday (321)

Elizabeth Mendoza *(University of California, Santa Cruz)*

I interpret Gramsci (1999) and Haney-Lopez's (2003) articulations of common sense through a cultural-historical activity theory (CHAT) lens to theorize common sense as a learned process. In my analysis, I expand on the notion of tensions (Engeström, 2001), and draw on boundary crossing (Tuomi-Gröhn et al., 2003), and a nuanced interpretation of moment-to-moment interactions (Cole & Levitin, 2000) to introduce the notion of nontensions across activity systems to define common sense. The theoretical adaptation of nontensions turns our attention to the ways, both conceptually and empirically, CHAT can be leveraged to gain insight into how dominate ideologies are: 1) an accumulation of complementary experiences across activity systems in our personal and social histories, and 2) perpetuated through moment-to-moment interactions. The focus on nontensions does not dismiss the understanding that tensions are present in every activity system, but instead centers on explicitly normalized, often unseen, practices accrued across time and ground in power and privilege. This analysis of dominant ideologies is facilitated through the framework of activity theory and the guidance of artifacts, rules and norms and division of labor.

To document this work empirically I document pre-service teachers' initial common sense understandings of teaching, learning and culture privileged adult-led practices (Rogoff, 2003), and unintentionally fostered the banking model of education (Freire, 1970), and perpetuated the Othering (Deloria, 1999) of students of color. I argue, with understandings of common sense, we can (re)design tools for critical reflection in learning environments.

**Format:** Paper presented in a Paper Session

# A conceptual historical narrative construct employing Engeström's third generation activity theory framework (AT) (433)

Robert Meyer *(Univesity of Phoenix)*

Effective internal controls to protect government information technology (IT) investments are essential as annual deficits exceed $700 billion dollars, government shutdowns, and sequestrations are threatened. The purpose of this qualitative historical single-case study was to explore, analyze, and describe feedback collected by the United States Government Accountability Office as IT governance and control requirements were rationalized. Prior to publishing an updated Standard for Internal Control in the Federal Government, the federal register requested participants respond to a series of questions directed toward the 2013 Draft Standards for Internal Control in the Federal Government. Four major themes emerged from within the 43 correspondents: (a) challenges exist with financial constraints and control documentation requirements, (b) the central oversight body must ensure that federal, state, county, departments, and agencies have shared understanding and objectives, (c) federal regulatory reform includes requirements identifying internal controls for both the Federal Government 2014 General Accountability Offices Standards and the 2013 Committee of Sponsoring Organization Standards, and (d) the implications of adapting a Standards for Internal Control publication to align with the Federal Government rather than adopting the publication. An efficient and effective approach to identify, integrate, and balance regulatory guidelines, stakeholders' concerns, and technical requirements for government leadership, contractors, and non-federal entity recommendations is proposed for assessment and development. This technique could provide government leadership a method to assess factors affecting or influencing proposed and/or existing regulatory control. Additionally, Engström's third generation activity theory framework (AT) facilitated a conceptual historical narrative construct.

**Format:** Poster presented in a Structured Poster Session

# Construction of knowledge in young urban populations: an Ethno-mathematical approach (189)

Miriam Moramay Micalco-Méndez *(Universidad Autónoma de San Luis Potosí)*

This study was carried out through courses which proposal was to contribute to improving the level of the mathematical knowledge of young students entering universities with significant shortcomings, young people aged between 17 and 20 years old. The proposed work included basic algebra activities raised on the culture of students under an approach that included their ethnic origin and the mathematical knowledge of their culture. The method proposed includes elements of dialogue and exploration of the zone of proximal development (Vygotsky, 1982). The materials were treated as cultural tools (Wersch, 1988) and it allowed to construct a particular one, logical in order to achieve the formalization of mathematical language. The interactions between students and those between the students and the teacher were the space of joint construction of mathematical knowledge. The Ethnomathematical approach allows developing the analysis on the learning achieved from the point of view of knowledge dialogue and the student's culture. Some results show that learning basic math content was significant even when, before the activity, it was not acquired. The primary assessment instrument was the development of new problems by students considering specific situations in their community. The activity was carried out by them through cultural artifacts. This aspect introduced a new way to enable personal reasoning as the basis to achieve mastery of algebraic knowledge.

**Format:** Paper presented in a Working Group Roundtable

# Seminar Women in Science: a historical-cultural approach in the training of researchers (193)

Miriam Moramay Micalco-Méndez *(Universidad Autónoma de San Luis Potosí)*, Juana María Méndez Guerrero *(Education Department of the State Government in San Luis Potosi, Mexico (San Luis Potosi, Mexico))*, María Isabel Lara-Banda *(SEER (San Luis Potosí))*, María del Socorro Quirino Muñiz *(UASLP (San Luis Potosí))* & Ana María Yrizar-Tamayo *(SEGE (San Luis Potosí))*

The pedagogical insight we have in the multi-method research about training researchers in educational sciences. The purpose of the Seminar Women in Science was to review the lives of women in science to explore different paths construction of scientific knowledge that these women developed in their historical moment. The movies were one of the didactical strategies. The revision of the trajectories of women allowed us to identify the singularities of scientific knowledge in order to reflect on their own trajectories of the seminar participants. The result was an experience that changed not only their research process, either they changed their own personal lives. Personal and collective expressions in the field of art and social engagement were carried out. The analysis of the investigation allowed us to identify the key factors that influenced the participants considered as women. The theoretical references on the lives of women, feminism (Lagarde, 2016) and methodological construction (Vygotsky, 1979; Freire, 1980) helped to construct a group of women in training process. The pedagogical proposal was carried out under a historical-cultural framework that included the different aspects of the participant's lives. The activities were planned from the point of historical-cultural perspective; it considers the cultural backgrounds of the participants and their historical references allowed to construct through dialogue a horizontal relationship between teacher and participants. Some of the results were the decisions the participants and the coordinator took, not only in the field of research but also in a personal domain.

**Format:** Paper presented in a Working Group Roundtable

# Joint attention and construction of gaze alternation in « face-to-face » interaction between adult and infant from 6 to 15 months of age, through the use of objects

Christiane Moro *(University of Lausanne)*, Marine Girard *(University of Lausanne)* & Michela Zenoni *(University of Lausanne)*

Joint attention is a critical socio-cognitive competence (e.g. Tomasello, 1995, 1999) developed by the infant during infancy. In our talk, we will examine the progressive construction of joint attention through gaze alternation during the use of objects in adult-object-infant from 6 to 15 months of age. The research concerns six dyads observed in triadic interaction. The use of object (cf. Object Pragmatics paradigm, Moro & Rodríguez, 2005) is a privileged place for the emergence of gaze alternation which is a quite slow process (Moro, 2014). Contributing to gaze alternation which is a 2 key process in the construction of joint attention, the use of the object primarily performed by the adult, supports the development of motives through emotions and allows a selective attention to the other and to the object from the part of the infant, providing an opportunity to differentiate the meanings related to the object and its use and the meanings related to adult's intentions. Taking into account the two levels of intersubjectivity (primary and secondary) put forward by Trevarthen (1979); Trevarthen & Hubley (1978), our research shows that the adult uses «face-toface» interaction to present the object to the infant and moreover, according to the type of object, assigns human characteristics to it. Theoretically, our research is based on Vygotsky's cultural-historical approach which points out the dialectical relations between psychic functions (and the change of dominance between them), and particularly in the present case, action (through the use of object), emotion, attention and joint attention under construction. Methodologically, we use a microgenetic frame to frame analysis and focus closely on gazes, postures, vocalizations, smiles, laughs, actions... of the infant and all kinds of movements in conjunction with the mediations of the adult such as the ostensive signs. The first results of this research as they appear suggest an intermediary type of intersubjectivity which establishes links between primary intersubjectivity and secondary intersubjectivity advanced by Trevarthen.

**Format:** Paper presented in a Symposium (116)

# Socio-materiality in learning and development (116)

Chairs: Fabienne Gfeller *(Université de Neuchâtel)* & Michail Kontopodis *(University of Sheffield)*

Christiane Moro *(University of Lausanne)*, Marine Girard, Michela Zenoni, Luisa Fernanda Estrada Gómez *(Universidad Autónoma de Madrid)*, Michail Kontopodis *(University of Sheffield)*, Fabienne Gfeller *(Université de Neuchâtel)*, & Harry Daniels *(University of Oxford)*

Generally, biological, psychological and cultural approaches to research theorize socio-material dimensions as "natural" components of human ecosystems. In a more specific orientation, some approaches consider the socio-material dimensions as interwoven in the ontological and phylogenetic development of psychological life. Socio-materiality is a necessary condition for our functioning/survival as human beings (see the notions of "paramount reality" in Schuetz, 1945 and of "ecology of mind" in Gibson, 1979). During the last years, attempts to explain the interrelatedness between psychological activity and the socio-materiality of human life have been central to social sciences (e.g. Hicks & Beaudry, 2010; Latour, 2001; Iannaccone, 2015). Several works have also been realized both in developmental psychology (Gillespie & Zittoun, 2013; Moro, 2016), and in learning sciences (Kontopodis & Perret-Clermont, 2016). These draw further in particular on Vygotsky's and Piaget's work, in which the question of socio-materiality is already present in a certain manner. Taking into account the socio-materiality of certain phenomena may also be a methodological strategy complementary to textual data based analysis (Belzen, 2010). The current blooming of works addressing these questions challenge cultural-historical psychological understandings of human agency, language, and cognition. The aim of this symposium is to examine further the role of socio-materiality in learning and developmental processes, through theoretical contributions as well as empirical data from contexts as diverse as public schools, urban allotment gardens, adult-child interactions in an experimental setting and kitchens.

**Format:** Symposium

# Japan All Stars, Tokyo, Japan

Yuji Moro *(Faculty of Human Sciences, University of Tsukuba)*

Japan All Stars is a non-profit organization functioning as a think-tank for organizers of poor communities in the poorest areas of Tokyo. Over the past two years, the organization has held several developmental gatherings and events for young people in partnerships with community organizers. The gatherings and events are aimed at intersecting diverse groups and communities, including bringing together young people growing up poor with academics, inner-city people with farmers in the rural area, poor adolescents with college students.

In 2015 we held the first trial of All Stars Project of Tokyo at Nishi-Iko-Family Park, Adachi Ward, Tokyo. Under the fine blue sky and with the cherry trees in full blossom, 82 people got together and enjoyed games and food, including 10 mother and child pairs, 5 high school students who normally hang around the parks after school, 4 social workers who are engaged to assist poor and single-mother families, 2 farmer grandmas who donated vegetables and helped us to cook dumpling soup, 28 primary school children and their care-takers (who participated on the spur of the moment), and 9 graduate students. This event took place in three parts. In the first part of the event, the group cooked dumpling soup with vegetables which were kindly donated by farmers in Tsukuba area, including carrot, white radish, long green onions, burdock konnyaku, and spinach. Two farmer grandmas and two boys did the cooking. In the second part, we invited two percussionists who played drums and a marimba, playing with hand-claps by young people. After eating dumpling soup, we organized game sessions. For the older children, Wagner Schmit, a graduate student from Brazil studying games in Japan, led a role playing game which focused on the Japanese Samurai era, in which they made a historical story about rural area people who found a dead body in the woods. An interesting discovery has been that the children loved speaking English during the game, even though they say they do not like to learn English at school.

**Format:** Paper presented in a Symposium (111)

# Gendered household labor distribution & morality: Exploring the family as an activity system and the genesis of social & moral reasoning (358)

Allegra Midgette *(University of California, Berkeley)*

Scholars have found that while women across cultures do on average two-thirds of all household labor, only 20-30% of women have reported finding these gendered distributions unfair. Meanwhile, previous research on moral reasoning about gender inequality demonstrates that men and boys tend to employ mostly conventional, or norm-affirming, reasoning. In other words, across ages and genders, individuals have been found to be less morally critical of gendered unequal distribution of labor in the home than expected. At the same time, scholarship within this field has focused on exploring an individual's reasoning independent of their actual practices in their own home. In this study, I argue that by studying the home as an activity system, interviewing and observing all family members' engagement in household labor, we can come a step closer to understanding the genesis of social and moral reasoning about the gendered division of household labor. Furthermore, observing and analyzing the activity and social and moral reasoning of 15 households in Changchun, China this study will demonstrate how individuals' moral reasoning about their actions and experiences in the family interact with household's activity system as well as the individual's position in the family, gender, and stage of development. Ultimately, by employing both a social domain theoretical framework to analyze moral and social reasoning and activity theory to explore cognition in culturally organized activity, this study seeks to understand how gender inequality in the home is interpreted, perpetuated or resisted.

**Format:** Poster presented in a Structured Poster Session

# Instrumental teaching: Language and action in learning processes and embodiments

Isabelle Mili *(University of Geneva)*

For Vygotsky (1935/1997), the relations between a subject and an object are widely determined by cultural and historical significations. In other terms, it's quite unthinkable to imagine a subject and an object immediately linked, in an immediate relationship. When this relationship is conceived in order to include an action and a dynamic, a third element appears: corporeality. Already constructed corporeality and emerging corporeality – in a learning or training context – allow us to think works of art and artistic practices as breaking elements which produce development. Jaques-Dalcroze (1981, p. 22) makes this sort of statement: "artists are not doing anything else than (…) transforming the physical rhythms in mental rhythms". To him, that means that attitudes and movements – including the most prosaic of them – provide musical experience. He says that "the way a pupil walks reveals", for instance, "physical, but also spiritual dispositions of this pupil" (Jaques-Dalcroze, 1981, p. 21). In a way, the aim of the Dalcrozian pedagogy is to specialize certain movements in order to construct technical and musical knowledge, but in continuity with the everyday body. How? In developing the performing body on the basis of the everyday body. We shall analyze other constructions about musical and artistic teaching, which aim to take a distance with the everyday use of the body.

**Format:** Paper presented in a Symposium (087)

# Rethinking assessments: creating a new tool using the zone of proximal development within a cultural-historical framework (157)

Victoria Minson *(Monash University)*

This dialogue paper will present an 'analysis through a cultural-historical lens' of the data collected when applying a new child development assessment tool to teacher's assessment practices in early childhood education. Vygotsky's collected works (1987- 1997) and the cultural-historical legacy disputes the philosophical and methodological perspective of development as innately determined, and the correlating assessment approaches from this perspective. This research proposes a new cultural-historical assessment tool, in line with Vygotsky's 'general law of cultural development of higher mental functions' and 'genetic research methodology'. The zone of proximal development concept is embedded as a theoretical tool to differentiate the two levels of children's actual and potential development. The principle of interaction of ideal and real form is used as an experimental tool, under the assumption that development is impossible without this interaction. This congruent system of principles and concepts enabled a cultural-historical framework to guide the research. To generate the data, video footage of three focus children was compared to their teachers' weekly assessment of their learning and development. Interviews with teachers unpacked their theoretical knowledge, which informed their assessment practices, revealing a predominant developmental approach to assessing development. Through collaborating and co-researching with teachers, a new cultural-historical assessment tool was developed and applied to assessment practices. Video footage of the focus children was then retaken and compared to the teacher's assessment using the new tool.

**Format:** Paper presentation on PhD Day

# Transitions from traditional development approaches to social based approaches – new possibilities in child's development assessment

Victoria Minson *(Monash University)*

This study proposes a social assessment tool to assess children's early childhood development. The cultural-historical theoretical framework of this tool insists that if we are assessing the social, we are assessing the individual. Therefore, it makes sense to base assessments of development within the source of development. Drama is essential in the tool; as the Zone of Proximal Development is a key concept, requiring the drama of what a child cannot do alone. Empirical examples of the tools application in the field will be presented, theorizing the practice of this approach in line with Vygotsky's Cultural-historical tradition.

**Format:** Paper presented in a Symposium (127/128)

# Speech Assessment in the framework of cultural-historical theory (073)

Galina Mishina *(Russian State University for the Humanities, Moscow)*

The cultural-historical approach assigns a leading role to speech in the higher mental function's development. The effectiveness of psycho-correction work, and in general the possibility of changing the type of development, if the deviation has been identified in infancy or early childhood, depends on the accuracy of the diagnosis of speech development.

Our theoretical and empirical data illustrate the existence of three lines in the speech development from birth: physiological, psychophysiological and psychological.

We identified features and regularities in the development of speech as a psychological mediator which allows for a new approach to the understanding of the characteristics of mental and personal development in the early stages of ontogeny, as well as purposeful development or, if necessary, correction.

**Format:** Paper presented in a Working Group Roundtable

# Triadic relations as the basis of the dialogic pedagogy (065)

Kiyotaka Miyazaki *(Waseda University)*

There are many studies on the dialogic education in the socio-cultural framework. Many of them, however, do not fully explicate the triadic relations between students, teacher and the learning contents in the educational settings so that their proposals are not sufficient to develop the dialogic pedagogy. This study proposes that the triadic relationship is vital for the dialogic education, based on the knowledge of practices of the Japanese dialogic pedagogues. The Japanese dialogic pedagogues think that teachers should explore and learn the learning contents as the students do and find out new, authentic questions on the learning contents which the author calls "unknown questions". The teacher can also find out new "unknown questions" in students' understanding of the learning contents and inquire them with students. Students and teacher can stand in the relation of "I and You" who inquire the learning contents collaboratively. Though Bakhtin pointed out the importance of the triadic relations between two interlocutors and their topic in the dialogue in his concept of the 'double directionality', many researchers of the dialogic education who are inspired by Bakhtin fail to see the importance of the triadic relationship. Some theorists focus only on the relationship among students. Some theorists see the importance of teacher's learning of the learning contents, but they do not understand that teacher's learning of the learning contents can make her/him understand students better. This study will show the ways to examine and overcome the shortcomings of the previous studies on the dialogic education.

**Format:** Paper presented in a Paper Session

# Psychosocial perceptions of skin bleaching and beauty among black South African women (416)

Charmaine Mojapelo *(University of South Africa)*

The psychosocial perceptions of skin bleaching and beauty were explored among four black South African women. The research was conducted through the lens of colonisation, decoloniality, and feminist theories by way of a social constructionist meta-approach. A qualitative method supported by semi-structured interviews was used. Thematic analysis was used on the data obtained. Results of the study suggest that the increased obsession around Eurocentric physical features could be due to the globalisation of Westernised standards of beauty. Participants of this study express being impacted by ideologies borne of South Africa's unique history of white domination. Findings indicate that the ideas were passed down from generation to generation and appear to have an impact on women's body image and self-esteem. Living in a world that rejects their blackness, it appears that some women have become psychologically trapped in a cycle that has resulted in the growing popularity of skin bleaching among South African women.

**Format:** Paper presented in a Paper Session

# Perezhivanie and subjectivity: methodological contributions, challenges, and limitations (083)

Chair: Nelson Mok *(Monash University)*

Discussant: Fernando González Rey (University Centre of Brasília/University of Brasília)

Nelson Mok *(Monash University)*, Feiyan Chen *(California State University, Fresno)*, Megan Adams *(Monash University)*, Daniel Goulart *(University Centre of Brasília/University of Brasília)* & Fernando González Rey *(University Centre of Brasília/University of Brasília)*

The recent publication of two special issues dedicated to the discussion of Vygotsky's perezhivanie highlight both the emerging interest in, and confusion surrounding, the concept. While these publications have highlighted theoretical issues (Mind, Culture, and Activity, 2016 pre-print) and demonstrated practical applications (International Research in Early Childhood Education, 2016, 7[1]), there is still further work required for understanding its contributions to, and limitations within, particular contexts of research. Thus, the goal of this symposium is to present such work and discuss the emergent methodological issues, challenges, limitations, and future directions not only of Vygotsky's perezhivanie concept, but also González Rey's conceptualisation of subjectivity, itself inspired by perezhivanie. We bring together research from disparate domains and critically examine the complementary perspective the concepts bring to our understanding of different forms of development, while highlighting the theoretical, methodological, and epistemological contributions to our research domains more generally.

The first two presentations (Feiyan Chen and Nelson Mok address perezhivanie specifically, while the latter two (Megan Adams and Daniel Goulart) draw on González Rey's conceptualisation of subjectivity. In raising these issues, we hope to stimulate further discussions on the role and limitations of the perezhivanie and subjectivity concepts in our respective domains (emotion regulation, second language acquisition, children's emergent identity, and mental health services) for 1) understanding the different kinds of development we study, and 2) the ways in which we conduct research. Following the presentations, Professor Fernando González Rey will lead a panel discussion with questions from the audience.

**Format:** Symposium

# Perezhivanie as a new perspective on second language acquisition and its research

Nelson Mok*(Monash University)*

Historically, the "sociocultural approach" to second language acquisition (SLA) research has been rooted in the cultural-historical concepts of mediation, internalization, the Zone of Proximal Development, private speech, and more recently, dynamic assessment. As researchers become increasingly aware of Vygotsky's concept of perezhivanie, developed in the last years of his life as part of a new understanding of consciousness as a dynamic, semantic system, it also becomes necessary to carefully discern the place of this concept within the sociocultural approach, especially given its current under-usage. That is, to understand its consequences, entailments, and limitations at every level of the research process, and to understand its current and possible interpretations within the existing theoretical context of sociocultural SLA (and SLA more generally). It is only through such an understanding that the full potential of the concept can be further developed and realised. Therefore, this paper discusses the contributions of the perezhivanie concept to the field of SLA research in a number of areas. First, I discuss its use by researchers as a response to a latent need to understand the role of emotion in learning and development, and the extent to which this has shaped the interpretation of perezhivanie in SLA. Second, I examine the implied methodological imperative for holistic analysis by-units rather than by elements, which also broadens the scope of research beyond that delimited by the concepts of mediation, ZPD, and private speech that define the current sociocultural approach. Finally, I examine new metamethodological possibilities of the concept for understanding the practice of observational and narrative methodologies by which the perezhivanie of learners is typically made visible for analysis. The concept, I argue, is useful not only for understanding the relationship between learner and environment, but also for understanding the generation and interpretation of perezhivanie data itself. This closer examination of the place of perezhivanie in the theoretical repertoire of sociocultural-SLA helps to clarify some of its potential contributions to the field.

**Format:** Paper presented in a Symposium (083)

# The role of the perezhivanie concept in an autoethnographic study of second language learning (224)

Nelson Mok *(Monash University)*

Vygotsky's concept of perezhivanie has the potential for informing research approaches that differ from those informed by his earlier works. This paper explores such possibilities in the domain of Second Language Acquisition (SLA) research, in which earlier concepts of mediation and internalization, and later practical concepts of ZPD and private speech, form the basis of the so-called "sociocultural approach". Recent, though marginal, interest in perezhivanie within SLA has predominantly been as a response to the overlooked role of emotion in learning. However, its consequences and possibilities for methodology have been less well-explored. For example, the shift from understanding the development of specific higher mental functions to understanding development as a reorganisation of consciousness as a whole requires richer sources of data with equally robust analyses for understanding the ways in which consciousness relates to learning, and shapes and is shaped by development. Thus, in this paper, I explore these, and other, methodological issues and possibilities that have emerged during my autoethnographic (self-)study—in which perezhivanie is the unit of analysis—of my own learning of a second language. Theoretically, I discuss the holistic, developmental view of language learning that is made possible, in contrast to the view implied in the traditional sociocultural approach. Methodologically, I examine the challenges and requirements of autoethnographic methodology. I also discuss the limitations evidenced through the use of supplementary methods to reveal what autoethnography does not. Finally, epistemologically, I show how perezhivanie clarifies the researcher-research relationship.

**Format:** Paper presented in a Paper Session

# The semiotic process of temporality in couple therapy (122)

Maria Elisa Molina *(Universidad del Desarrollo)*, Pablo Fossa *(Universidad del Desarrollo)*, Ximena Pereira *(Universidad del Desarrollo)* & Carolina Aspillaga *(Universidad del Desarrollo)*

The purpose of the study addresses the temporality quality of relational processes. Our current experience is shaped with a sense of time. Time is integrated in the construction of the self and the bonds with others. In the couple there are tension around how temporality is experienced by each partner. There are individual times, and shared times. It implies life transitions, uncertainties of the future, history and emotional impact issues. The study explores experiential time, the coordination of different temporalities and regulatory processes of the couple in the therapeutic encounter. A methodology of semiotic analysis is used with the dialogues during the sessions. The results are organized in two levels: A level of meanings: vital periods, events, and temporal orientation. At a process level: Sequences of: transitions and experiential time in the couple generate tensions between individual and conjoint positions and regulatory strategies.

**Format:** Paper presented in a Working Group Roundtable

# The COMConéixer project: evaluation of methodological aspects of the project based on pupils' perceptions (208)

Mireia Montané *(WFATE World Federation of Associations for Tecaher Education)*, Carme Amorós *(Center of International Educational Programs, Catalonia College of Arts, Letters and Sciences)* & Mercè Gisbert *(Rovira i Virgili University)*

COMknowledge (COMmunication, COMmunity and Knowledge) is an international cooperation project that began in Catalonia in 2006. Today it is directed by the Centre for International Educational Programmes of the College of Doctors and Graduates in Philosophy and Arts and Sciences of Catalonia.
In this paper we present the part of the external evaluation that refers to the pupils' perceptions of the project's methodological aspects.

Participating in the evaluation were 373 pupils (161 primary schoolchildren and 212 secondary schoolchildren). From the questionnaire designed to collect the pupils' perceptions, we have analysed the responses to the 11 questions on methodology.

In general, the perceptions the pupils have of methodological aspects are good. For most areas – the use of different sources of information, being able to read and listen to the contributions of others and to present one's own contributions, involvement in teamwork, interest shown in participating in activities, and participation in the Knowledge Forum® – there is not much difference between the perceptions of primary schoolchildren and those of secondary schoolchildren since we may consider them all to be positive or very positive. The pupils also believe that the approach used in this project can be transferred to other fields of knowledge.

**Format:** Paper presented in a Paper Session

# A historical and dialectical materialist understanding of sexual identity (017)

Jeferson Montreozol *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Inara Leão *(Universidade Federal de Mato Grosso do Sul (Campo Grande, Brazil))*

Based on the assumptions of historical and dialectical materialism, this paper aims to provide a discussion of sexual identity using the theories of identity-metamorphosis developed by Antonio da Costa Ciampa and employees. Therefore, we present a discussion of the development of psychological science, focusing on the role that science has played in their theories, a positivist organization of knowledge, ending only in the description of psychological processes. We analyze how historical materialism allows us to understand the development of relations between sex, sexuality and gender, which engender the development of sexual identity of individuals in a given historical and social context. And, in the meantime, we discuss the identity development process and, in particular, sexual identity, pointing out certain processes that crystallize the identity in the form of a fetishism of sexual characters. Finally, we reiterate the need of otherness as a key foundation for us to break the non-movement of assumptions, thus allowing a dialectical synthesis that produces emancipatory movements and the development of sexual identity politics.

**Format:** Paper presented in a Working Group Roundtable (WGRT)

# The unconscious as dialectical pole of consciousness: Possibilities and Approaches in Vigotsky's psychology (019)

Jeferson Montreozol *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Inara Leão *(Universidade Federal de Mato Grosso do Sul (Campo Grande, Brazil))*

This work has a highly theoretical nature, and aims to restore, in all the Vygotsky studies, the relationship between consciousness and the unconscious because the unconscious is treated in an unsystematic way in his work. Therefore, we take the epistemological and methodological assumptions of historical and dialectical materialism, which have allowed us to understand how Vygotsky conceives both instances of the psyche, safeguarding the cultural derivation of its features. Thus, while socio-cultural construction, the unconscious can only be grasped in its dialectical relation to consciousness, not being an absolute and dominant instance of this, but rather, ensuring and enabling the existence of this other pole. We also believe that due to a common epistemic orientation between the analyzes contained in Marxist theory and historical-cultural theory, the understanding of the unconscious as a dialectical pole of consciousness is different from the explanations now produced in certain theories of psychology, for example, psychoanalysis and cognitive theories. We have reached some understandings about the unconscious in the relations with labor activity, with language and, in particular, with the role of emotions and interpersonal relations in the constitution and development of psychic instance, which is historically promoted by the model need to society.

**Format:** Paper presentation on PhD Day

# Unconscious and Sexuality: Notes from the historical – cultural psychology (018)

Jeferson Montreozol *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Inara Leão *(Universidade Federal de Mato Grosso do Sul (Campo Grande, Brazil))*

Our researches about the relationship between the unconscious and sexuality have pointed out that this process develops through the structures and nonverbal processes, allowing the subject to develop their sexual identification even without understanding it, preclude to develop abstractions to understand how external reality is affecting it.

If consciousness is the synthesis of the relationship between the meanings (social and sexual processes) and personal way, it's the absence of these two that features unconscious subjectivity. This is formed primarily by emotional tone, as a shift of the intensity of feeling states (affection) that guide the subject to the given object, signal their interest, but that he can't understand and explain, even to interfere in the way it develops its identification with sexuality. The senses may become unconscious because they don't gain representation in the form of a sign, which would enable its representations in consciousness. In this case, even without knowing which emotion refers to the tone that drives me to something/someone, posteriorly I can be aware that it was a special feeling for each other (unlike me), but I didn't remember me. The sense that I have built is unconscious due to the impossibility of representing it fully: with sense and meaning.

**Format:** Poster presentation on PhD Day

# Dialectics of sexuality: What we think from the historical-cultural psychology (020)

Jeferson Montreozol *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Inara Leão *(Universidade Federal de Mato Grosso do Sul (Campo Grande, Brazil))*

In recent science, psychology has brought theories that cast efforts to understand and explain phenomena and processes arising from the human and social sciences, and from biological sciences and health. Meanwhile, the constitution of the human aspect has shown urgency for this science, that has split the subject in body and mind, objectivity and subjectivity. Then, psychology has brought the need to protect the materiality and the reference for structuring a sexuality ruled on biological sex, and it has also brought the need to consider historicity and dialectics in an eminently social and historical understanding of the sexual basis. In view of historical-cultural psychology, we understand that sexuality is the synthesis of a dialectical process that brings in an organic base (body), from which the subject develops a psychological structure initiated by socialization in their social group. Therefore, we consider the continued development of sexual identity and not the fixity of that structure; the non-exclusive ownership of attitudes and behaviors male or female; developing a sexual identity that embraces both the social and historical aspects as well as the elements of consciousness and the unconscious subject (Higher Psychological Functions and mediators); the revalidation of the sphere of pleasure, as a possibility for directing the emotional aspects or even the emotional tone; and landmarks imposed by capitalist society to the development of sexual identity. This framework allows to understand the dialectical assumptions of contradiction and dynamism possible to work with the existence of a contradictory, multiple and pluridetermined reality, evidenced in the relationship between subject and object in the psychic and sexual development.

**Format:** Paper presented in a Working Group Roundtable

## Developing a collaborative classroom culture: A cultural-historical perspective (311)

Veronica Morcom *(Murdoch University)*

Students' interaction with others significantly affects cognitive growth and the development of higher mental functions (Vygotsky, 1997, 1998). In the current research, students had opportunities to negotiate the conditions for their learning through the development of collective social practices that created a collaborative classroom. Students took responsibility for their participation in the Daily Social Circle and the Weekly Classroom Meetings. Students were or became the subjects of the collective activities, and the teacher's role was to promote student cooperation and collaboration. The collective and personal sources of qualitative data are: the dialogue created during the Daily Social Circle and the Weekly Classroom Meetings; parent and student interviews; teacher/researcher observations and students' reflection logs. The subject of the collective activity was social problem solving to develop student collaboration that ultimately supported learning and development. The collective activities were a source of social development for students but also the students themselves were the source of development for each other, through dialogue and the co-construction of new ideas during social practices. Vygotsky's cultural-historical theory and the concepts of social situation of development, crisis and the zone of proximal development will be used as analytical tools for the data analysis (Vygotsky, 1994). The theoretical and practical relevance of this research for pre-service teachers is related to how Vygotsky's cultural-historical theory contributes to a richer interpretation of classroom practices and the practical strategies that can be implemented to facilitate how students interact with each other to support their development and optimise learning.

**Format:** Paper presented in a Working Group Roundtable

# Subjectivity, intersubjectivity and material culture: The production of the subject in early development

Christiane Moro *(University of Lausanne)*

Since the 1950s, mainstream psychology is primarily dedicated to studying a natural, individualistic and unsituated mind. In the second half of the 20th century, some criticisms have been addressed to this conception of mind (e.g. Acts of Meaning, Bruner, 1990) and research has been produced in the field of cultural psychology in the US. At the same time, Vygotsky's cultural-historical ideas have been popularized in Western countries with the first publication in the US of Thought and Language (1962). Concerning early development, material culture and its role in the developing subject have apparently received little attention from psychologists excepted some few research where objects are redefined in their material and semiotic dimensions through their cultural uses and are appropriated in subject-subject-object triadic interactions (cf. Sémiotique, culture et développement psychologique, Moro & Muller Mirza, 2014). But more generally the reflection rather seemed to institutionalize a « division of labour » between two psychological lines of development of the construction of the subject, one organized around the development of communication (e.g. Trevarthen & Aitken, 2003) and another one organized around the development of cognition (e.g. Baillargeon, Spelke & Wisserman, 1985). The second line perpetuates the tradition of child psychology introduced at the end of the 19th century. In our talk, we will discuss this differentiation in early development. For this purpose, we will draw upon Marx, Spinoza, Heidegger and Kant with some recent works carried out in philosophy 1) concerning the notion of « world » examined by Michaël Foessel in Kant et l'équivoque du monde (2008); 2) and what we can qualify of « production of the subject » following Marx, on the basis of the work of Franck Fischbach, La production des hommes, Marx and Spinoza (2014). Our analysis would tend to demonstrate that 1) the separated study of communication and cognition in early development leads to the absence of consideration of material culture in psychological development; 2) that the allegedly scientific psychology is still dominated to a considerable extent by philosophical traditions, from which notions are often borrowed without questioning them.

**Format:** Paper presented in a Symposium (087)

# Methodological potential of cultural-historical psychology (404)

Stanislav Morozov *((Moscow State University of Psychology and Education (MSUPE))*

1. Vygotsky's scholarly endeavor is translational motion, in the course of which earlier developments become natural constituents of the later ones.

2. During the first years of his academic career, Vygotsky introduced a number of important assumptions that he developed later:
   - Psychology may only be part of Natural Science.
   - The subject of Natural Science (including Psychology) is a living system that is capable of self-development.
   - The method of Psychology should consist in analyzing psychological units.

3. Vygotsky delineated the specific nature of people in his theory of verbal thinking, which he had no chance to finish:
   - The subject of Psychology is the process of people's interaction with their social environment.
   - The driving force of the intrapsychic world's development is self-development which is based on a contradiction between meaning and sense.
   - The person who gives birth to meanings is a totally new creature, i.e. a totally new subject of Natural Science.

4. Careful examination of Vygotsky's ideas leads us to a number of assumptions that introduce drastic changes to our understanding of the subject of psychological research:
   - People obey social (rather than biological) laws alone, and it is for this very reason that people are social beings.
   - Psychological research should follow the trajectory from the social to the biological, and not the other way.
   - The subject of psychology (the social) should be understood as a process giving birth to its basic components (the biological) rather than an aggregate of components.

5. Thus, Vygotsky's cultural-historical psychology seems to be a system that contains a significant methodological potential, rather than just a scientific theory.

**Format:** Paper presented in a Paper Session

# Developing reflection in teacher education

Colette Murphy *(Trinity College Dublin),* Marita Kerin *(Trinity College Dublin)*

In this paper, the development of teacher reflection, as a higher mental function, or psychological tool, is considered within Vygotsky's cultural-historical theory. Reflection is a systematic, rigorous process of inquiry-based thinking with action, which requires collaboration with others. Its development is onerous, complex and, at times, uncomfortable for both pre- and in-service teachers. Coteaching, during school experience, can provide a mediational means whereby both in-service and pre-service teachers can expand their opportunities for learning and reflection. In terms of the reflection process, our research suggests reflection for, on and in action as units of analysis, coteachers plan, teach and reflect on lessons together.

Within the reflection process, coteachers also reflect on the development of their own reflection, using tools such as Larrivee's (2008) levels of reflection, an adaptation of Lampert-Shepel's (1999) model of reflection based on the work of Dewey and Vygotsky, and cogenerative dialogue (Tobin, 2006). As coteaching itself develops from the early stages towards more 'mature' coteaching, coteachers are encouraged to reflect for, in and on action firstly as participators in the process of coteaching, then as co-operators, and finally as contributors.

**Format:** Paper presented in a Symposium (177)

# The dialectics of history: Cultural practices of schooling and classroom teaching and learning in South Africa and Finland (027)

Azwihangwisi Muthivhi *(University of Cape Town)*

The study expands on the notion of history in Vygotsky's developmental psychology, to examine the implications of the consequences of societal history on schooling and classroom teaching and learning in the diverse socio-cultural contexts of South Africa and Finland.
Drawing on data from classroom observation—as well as ethnographic data, the paper explores the internal dynamics of the vicissitudes of history and culture; and their consequences on the diverse traditions of schooling, and practices of classroom teaching and learning in Finland and South Africa respectively.

**Format:** Paper presented in a Working Group Roundtable

# Radical creativity, challenging theory, changing identities – Challenging and exploring the boundaries of theory through the concept of identity (247)

Chair: Signe Juhl Møller *(University of Copenhagen)*

Discussant: Lars Bang Jensen *(Manchester Metropolitan University)*

Signe Juhl Møller *(University of Copenhagen)*, Jan Georgeson *(University of Plymouth)*, Samantha Jones *(Bedford College)*, Thomas Sørensen *(Aarhus University)* & Lars Bang Jensen *(Manchester Metropolitan University)*

We will address challenges and theoretical transgressions of cultural-historical theory through exploring identity (at a practical level) and possible theoretical transgressions (at a theoretical level) proposing limitations and ways to overcome some of them, within the cultural-historical framework.

By highlighting issues and exploring how limitations in current theory might be overcome by building on or appropriating other theories to expand on what the cultural-historical/activity theory heuristic cannot satisfactorily open up. For example, how might conceptual and language tools be analysed using theories which are compatible with the ontology and epistemology of contemporary Vygotskyan theory? How might questions of the dialectic tension between context and its influence on identity be modelled by expanding or crossing theoretical boundaries? The four papers in this symposium take as their starting point how far material-dialectical theories can assist in explorations of (co-)construction of identity. We could argue that our paradigm only sees potential in a given situation, but is blind to that radical change which breaks with the causal chain of events. Across our four papers, we explore how far it is essential that theory evolves in order to explain the phenomenon of historically developing identities, and raise questions about the appropriation of additional concepts into cultural-historical theory.

The first two presentations address secondary school (Georgeson) and teacher education level (Boag-Munroe). The third presentation will explore college lecturer's relationship between identity, pedagogy and CPD (Jones) and the final presentation will address the problem looking at scholars within a university context (Møller & Sørensen).

**Format:** Symposium

# Reinventing scientists and knowledge production: practiced-based research from a laboratory workshop, exploring identity, creativity and aesthetics

Signe Juhl Møller *(University of Copenhagen)* & Thomas Sørensen *(Aarhus University)*

When scholars, from different areas of the humanities and social science, meet in the Robot Culture and Aesthetics (ROCA) research group, they do so to take part in practice-based 1 research to explore open-ended activities together. At two robotics workshops, a novel setting uncommon within the social sciences was created to foster the exploration of creative and aesthetic processes in different ways from traditional research processes. Using this untraditional approach to collaboration within research as a case, this presentation wishes to explore how individual scholars (re)construct knowledge and gain new ground by transgressing the boundaries of their own particular activities and domains of research, thereby also challenging their professional identities. Through an analysis and interpretation of a case of practiced-based research, we will show how new theory is generated or emerges from the concrete observations. This is done with constant awareness of the observer's own presence as an exploration of an extra dimension of the analysis, both acknowledging the researcher's own influence on the situation that has been created and of the researcher's perception of the new room of possible understanding. This latter part is what can be described as the excess of analysis, a change of focus, arguing that the analysis in itself can generate knowledge, an understanding built on the assumption that the analysed elements in themselves possess an excess, a something more, to be disclosed by the analysis. We wish to draw out what this amendment to the analytical strategy offers classical modes of research, in relation to generating new knowledge. An example from video data collected from two of the robotics workshops in the research group will be used to analyse and examine interactants' activities in the practiced-based activity settings, thereby presenting an analytical approach, based in cultural-historical theory (Hedegaard 2011, 2012; Vygotsky 1998), created to handle interpretations of the researcher's professional identity, creative processes, change and knowledge production. By the use of dialectical materialist theory, this analytical approach is designed to generate new understandings of transgressions as an integrated dynamic part of interpretations connected to the process. The concept of creativity is thereby connected with the concept of change and transgression in the activity we describe and as part of the development of the activity setting (Møller, 2016). Transgression of the interactants' self-directed initiatives is argued to be the basis for the transformation of the activity and the identity of the individual him/herself. Combining theory and concrete observations the analytical approach offers a broadening of the platform to theorise the observed transformations, identifying transgressions and consequent negotiation, thereby providing insights into knowledge production, creative and transgressive acts and, in a broader perspective, the co-construction of institutional practices.

**Format:** Paper presented in a Symposium (247)

# WIKI-Wolves dressed in sheep's clothes? Students understanding of and transgression in an interdisciplinary educational setting

Signe Juhl Møller *(University of Copenhagen)* & Thomas Sørensen *(Aarhus University)*

This presentation follows students taking part in an interprofessional module (faculties include nursing, midwifery, physiotherapy, social work, nutrition and health), at the University College Metropol. Here an educational setting has been created to foster the exploration of reflexive processes' relation to transgression in different ways than in traditional learning practices. The student's main task is to produce the content for a web page that allows anyone to add, delete and revise content, using a web browser (within a WIKI framework) - and as students point out: "[...] allow for the teacher to constantly surveille the [groupwork] process." This unorthodox approach to the learning process was deployed to explore students meaning making and open-ended activities within a practice-based learning setting. An ethnographic experimental pilot study was carried out with two out of a total of fifteen groups. Our aim was to explore and foster the student's transgression of the boundaries of their own profession and understandings by establishing reflections so that the collaborating students obtained experiences from outside their own professional domain of practice using these experiences to challenge what they are reflecting on, with, from and in. This opens up for the student to experience different ways of participating in practice forms, i.e., the way the individual structures his/her thinking, given a particular institutional practice. By the use of cultural-historical methodology, analysis of observation of interactants, interviews, and focus group interviews new concepts are generated as an integrated part of interpretations connected with the process. Examples will illustrate how the WIKI project offers a platform to identify transgressions and negotiation of these, providing insights into learning practices and engagement as students' co-construct the web page. Transgression and the interactants' own-directed activities are here found to be the basis for the possible transformation of the activity. In this presentation, we propose to theorise from the observed transformations and provide insights into novel learning, creative and transgressive acts and in a broader perspective the co-construction of institutional interdisciplinary practices. Overall, the fundamental idea of the presentation is to show how we can study students understanding of transgressions within interdisciplinary collaborations by means of an exploration of open-ended activities and own-initiated practice-related issues.

**Format:** Paper presented in a Symposium (174)

# Conceptual elaboration in geometry: the classroom as a community of learning (053)

Adair Mendes Nacarato *(São Francisco University)*, Cidinéia da Costa Luvison *(São Francisco University)* & Iris Aparecida Custódio *(São Francisco University)*

This paper is the result of a collaborative research project that has as its focus the process of conceptual elaboration in geometry. The research was performed in a third-grade classroom (students 8-9 years old) in a project done in partnership with the classroom teacher. The school is located in the municipality of Bragança Paulista, São Paulo, Brazil. One researcher accompanied the 32 students in the classroom. This research is part of a larger project whose objective is to analyze practices of mathematical literacy and teacher development under the Educational Observatory Program financed by Capes/MEC. The empirical material studied consists of transcriptions of video recordings of the observed classes. The project takes into account the historical-cultural perspective, both with respect to the practice of the teacher, as in the theoretical reference used to analyze the selected episode. Some theoretical concepts are used, such as: the role of the word and the process of conceptual elaboration; mediation and pedagogical intervention in this process; and the role of the other in learning. They are concepts that are enmeshed in the understanding of human development. We assume that the school performs the role of promoting lettering and scientific learning. Under this approach, the role of the teacher is central to the creation of a learning community, both for students and for the teacher who learns how to teach. For this presentation, we selected an episode on the flattened diagramming of a cylinder, part of one of the geometric tasks proposed to students.

**Format:** Paper presented in a Working Group Roundtable

# Crowdfunding as an artifact for empowerment of local citizen activities in Japan (033)

Masako Nakamura *(Tokyo City University)*

Crowdfunding garners worldwide attention as a new financing method for entrepreneurs, non-profit organizations, and local governments. Its prevalence has also rapidly increased in Japan, especially since the Great East Japan Earthquake in 2011. Several types are acknowledged including reward-based, donation-based, equity, and debt crowdfunding. The first two types are widely recognized in Japan. We can support a crowdfunding project through the Internet regardless of our location. However, according to previous research, those in close proximity invest more money per person than those who live further away. Furthermore, research implies that both online communication and offline factors including face-to-face communication were essential for the behavior. There are three roles in crowdfunding – the manager of the website, a proponent of each project and supporters of it. We focused on crowdfunding websites specifically addressing regional activities as artifacts, and investigated how the manager supports a proponent in crowdfunding. Qualitative interviews were conducted with managers and proponents. Different from managers of large general crowdfunding websites, those of region-specialized websites tended to be involved with proponents and advised on both online communication techniques and management of their activities. Proponents mobilized as many personal networks as possible to achieve the crowdfunding goal. Furthermore, the arrangement change of a community-based agency was examined.

**Format:** Paper presented in a Working Group Roundtable

# Interactions among students related to the construction of school scientific knowledge: a multimodal analysis (246)

Gabriela Begonia Naranjo Flores *(Universidad Pedagógica Nacional)*

This is an ethnographic study that uses multimodal approach tools to investigate the role of interactions among Mexican students in a fourth-grade group in building knowledge during their science lessons. The analysis is based on two contributions of Vygotsky (1979 and 1981): 1) the role of social relations in shaping mental activity of individuals, allows me to consider the importance of interactions between students in the construction of school scientific knowledge; 2) the definition of the sign as a tool to psychologically influence the behaviour of both the other and the self, provides me the basis for consider the interactions among students as mediated actions by sign systems that allow communication and representation of school content and thus the collective construction of knowledge. The multimodal approach (Kress et al., 2005) gives me methodological tools to analyse students' speech, gestures, gazes as sign systems, which are the basis of communication processes, representation and production of meanings. The results show as many of the interactions among students occur around the lesson's contents. Through their interactions students: 1) share their experiences related to the content of the lesson that is being addressed; 2) share the findings obtained by themselves through experimental activities; 3) ask questions to each other about the school contents; 4) share their autonomous work initiatives. Thus, students are active participants in the collective construction of school scientific knowledge. The issue of students' agency, not as property of the individual but of social relations, is discussed (Wertsch et. al, 1993).

**Format:** Paper presented in a Paper Session

# The group as a source of development: rethinking professional development in educational field through a collaborative perspective (058)

Fabiana M. B. Nasciutti *(State University of Campinas - UNICAMP)*, Ana Maria Falcão de Aragão *(State University of Campinas - UNICAMP)* & Nikolai Veresov *(Monash University)*

Educational demands, especially student's learning and behaviour problems, exist in everyday work of numerous professionals, such as psychologists and teachers. Considering the complexity of this kind of demand, they usually search for support in professional development programs. However, literature review indicates that Brazilian programs for those who work within the educational field are generally restricted to technical learning, often ignoring professional's real needs and claims. This poster will present findings of data analysis from an interventionist study, which aimed to develop and analyse a special type of professional development program, trying to understand how the group might be a source of development for those who work with educational demands, in order to rethink professional development process in a collaborative perspective. Research data – audio recordings of meetings; participant's reflexive registers – was generated from this program, offered in Brazil from September to November 2014. The group was comprised of ten professionals, who were invited to share their professional concerns, in order to find collective solutions. Concepts of cultural-historical theory – social situation of development, crisis and perezhivanie – are analytical tools, indicating that collective dimension is a condition to individual's development. The group has worked on social relations between participants overcoming crises live during the meetings. Furthermore, each participant was affected in a special way, indicating that only those social factors refracted through individual's emotional experiences can result in development, showing how important it is to propose professional development programs having group interactions and dynamic as a main aspect.

**Format:** Poster

# Transitions from traditional professional development programs for educators into a collaborative perspective

Fabiana M. B. Nasciutti *(State University of Campinas - UNICAMP)*

This study examines the group as a source of development for professionals who work within educational contexts in Brazil. Traditional professional development programs are often focused on an individual and technical approach, based on knowledge transmission. However, cultural-historical theory claims the process of development of higher mental functions as the path of how social becomes individual. Thus, this study examines how crises experienced in social situations throughout a continued education program are essential to individuals' professional development. Findings suggest the urgency to value the Drama in social interactions, through dialogue and coconstruction of ideas as a way of overcoming challenges in daily work.

**Format:** Paper presented in a Symposium (127/128)

# Supporting economically-disadvantaged students' academic aspiration for challenging mathematics in Australian schools: An observation study using lesson episodic analysis (170)

Clarence Ng *(Learning Sciences Institute Australia, Australian Catholic University)*

Few Australian students from low-income families, including those who are high achieving, have shown sustained aspiration in learning advanced Mathematics. This calls for research attention on effective ways to support disadvantaged students' academic aspiration. Based on Cultural Historical Activity Theory (CHAT), this study examined the extent to which mathematics lessons support students' academic aspiration in advanced mathematics, which is understood as an outcome that a classroom activity system aiming to promote through its object-oriented activities. Four teachers and their Year 10 classes from schools located in high poverty suburbs in Australia participated in this observation study. In total, 11 lesson observations were conducted (over 770 minutes). Informed by CHAT, the analyses divided each lesson into a series of identifiable lesson episodes which were characterised by distinct goals, rules, roles, and relevant actions and interactions consistent with the goals. Based on lesson-episodic analyses, it was found that disadvantaged students learned mathematics mainly through two connected episodes where the teacher demonstrated problem-solving strategies for a mathematical problem, and following which, students spent time on rehearsing these strategies using teacher-assigned tasks. While these episodes were rather effective in developing students' confidence in using problem-solving strategies, they were habitual, uninteresting and lackadaisical. The extent to which these episodes could promote students' aspiration in selecting advanced mathematics for their senior studies is questionable. Developing a lesson episode that promotes students' abilities and interest in taking on challenging mathematical tasks will have the potential to steer a classroom activity system to support students' academic aspiration.

**Format:** Paper presented in a Paper Session

# Dynamic of child's cognitive-personal development while overcoming learning difficulties (396)

Irina Nikolaevskaya *(Moscow State University of Psychology and Education (MSUPE))*

The main idea of the paper is based on L.S. Vygotski's concepts of ZPD and collaboration of teacher and student. The special process between teacher and student, organised in child's zone of proximal development with using reflection and reflective questions as mail helping tools, leads to qualitative changes firstly in cognitive development of the student. Successes in learning activity create base for development of personal features. Thus, in such process, we may see strong connections between cognitive and personal developmental trajectories. Understanding of these connections gives an opportunity of mediative work with personal difficulties of a child, opportunity to turn simple processes of learning into counseling work, effecting all spheres of development.

**Format:** Paper presented in a Paper Session

# Language of critical collaboration in high school teachers' agency development (143)

Maria Otilia Ninin *(UNIP - Universidade Paulista)* & Maria Cecilia Magalhães *(Pontificia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Based on socio-historical discussions (Vygotsky and followers), this paper aims at discussing critical collaborative language organization through which participants can overcome and transcend limitations, while acting to intentionally transform their actions and the world around them (John-Steiner, Stetsenko, Holzmann). Critical Collaboration (Magalhães, 2001, 2010, 2014, Magalhães e Fidalgo, 2007) is understood as ways to organize language in which participants act to build knowledge in concrete terms. It fosters involvement practical-theoretical negotiations that may promote understanding as well as challenge both the meanings that these actions convey and the interests that underlie them. Specifically, it discusses High school teachers´ agency development (EDWARDS, 2005, 2007; Yamazumi, 2007; Engeström, 2007, 2008, 2009, 2011; Engeström and SANNINO, 2011; Virkkunen, 2006a, 2006b) in the project "Reading and Writing in Different Areas", in the context of Teacher Education, held in a public school located in a city nearby São Paulo, Brazil. Methodologically, it is anchored in the Collaborative Critical Research (PCCol) (Magalhães, 2009; 2011; 2012), characterized as an intervention research which focuses on the desencapsulation/ transcendence and transformation of school learning. The project was carried with six teachers from different knowledge areas, one pedagogical coordinator of the language area and four researchers at fortnightly meetings. Preliminary results highlight changes in the meanings attributed by the participants to pedagogical teaching practices and indicate conscious theoretically grounded positions revealing relational and transformative agency and the emergence of a responsive professional practice.

**Format:** Paper presented in an Interactive Paper Session

# Cross-national explorations of sociocultural research on learning with new technologies (036)

Paul Thabano Nleya *(University of Botswana)*

There is much concern for humanity's contemporary cultural and historical circumstances and in particular the linkages between our scientific practices and our respective political and economic positions. This paper explores the dialogue among international interventionists (Botswana and Finland) whose work is rooted in the traditions of cultural-historical activity theory (CHAT), Developmental Work Research (DWR) and Change Laboratory (CL) technique. The foreseeable future of these research traditions using experiences from collaborative research conducted by universities of Botswana and Helsinki is the focus. This collaborative study used CL ethnography and new trends in cultural-historical activity research as theoretical and methodological tools to investigate the transformative role of technology in schools. Tensions, extensions, and new formulations in cultural-historical activity research rendered boundary crossing within zones of possibilities in the diffusion of new technologies and new ways of organizing work activities at three pilot schools.

Discussions are in the form of questions, issues, findings, interpretations and lessons learned in understanding the domain of transformative applications of new technologies in diffusion of educational innovations. Rather than highlighting the roots and traditions of cultural-historical activity research, the paper seeks to continue discussion of foundational works that contributed to understanding human practices, their development, agency and potential across the lifespan of the Botswana expansive School Transformation Project (BeST). Of central concern to the paper is the transformative potential of digital tools and resources in knowledge building, working and living in 21st Century societies and how such hybridization could be achieved.

**Format:** Paper presented in a Paper Session

# How play can be distinguished from art in children's activities in the early childhood education: In the case of an art workshop (317)

Saki Noguchi *(Waseda University)* & Kiyotaka Miyazaki *(Waseda University)*

Although it is sometimes pointed out that play and art activities have some commonalities (Sutton – Smith, 1997), the differences between these two activities are rarely studied. Based on Gadamer's (1960) view of play, Kurihara (2004) argued that children cannot understand "the completeness of the work" and "the merger with the audience", both of which differentiate theatrical play from play in adulthood. In the Japanese early childhood education, art activities, or "Hyougen Katusudo (expressive activities)", are generally thought to one kind of play activities. The researchers of this study believe, however, that art and play of children are, though closely related, different sort of activities. The purpose of this paper is to examine the ways to clarify the differences between art and play in childhood.

Our research site is a Japanese kindergarten whose practitioners believe that art activities are vital for children's development and think that teachers should actively intervene to children's activities to enrich them. The target of the study is a summer art workshop held in the summer vacation, in which children make some artwork collaboratively with the invited professional artists. Children's act with and around the artwork were collected and classified, at first intuitively, to "playful act" and "artful act". These classifications were further analyzed, and the results showed that children enjoyed the act itself in "playful act", and committed the transformation of the artwork (or part of it) in "artful act".

**Format:** Poster

# How teachers master and appropriate semiotic tools in working activities (095)

Ana Lucia Horta Nogueira *(University of Campinas - UNICAMP)*

The work is a complex activity historically constituted and guided. This implies that it is always related to the participation in the institutional practices, to the use of certain types of semiotic and technical tools, and to the way professionals develop their activities and solve problems using and transforming the available tools, as well as constructing new ones. At school, the work of the teacher is guided by a set of cultural notions and tools which delimit and organize its contours, such as the social roles of teachers and students, the ritual and procedures associated with the teaching and learning activities, and the selection of topics and subjects to be taught. The empirical data analyses explore how the use of particular tools and the introduction of practices at school are intrinsically interlaced with notions, concepts and other aspects involved in the teaching dynamics. The peculiarity of the work of the teacher as a mediated activity is that it addresses multiple targets: the worker her/himself, the student activity and also the subject of the task. This multiple addressing involves a very elaborate manner of using the meditational means and tools by adjusting and recreating them in each situation. Situations like this, inherent to the classroom routines, make explicit the complexity of the teaching activity, which involves the simultaneous use of meditational tools of different types and levels.

**Format:** Paper presented in a Working Group Roundtable

## Play-based teaching and learning approaches and the development of freedom (435)

Sarah Oatney-Weiler *(University College London (UCL))*

Play, within a cultural-historical perspective, can be characterized as a joint activity that is socially constructed in which participants "play out" an imaginary situation, taking on roles and developing scripts that externalize their conceptual understanding of the world and themselves in the rules they negotiate for action. In playing the imaginary situation of going to the doctor, for example, there are rules about how a doctor acts in relation to the patient (and vice versa) and the types of material tools and conceptual tools used in the practice of medicine.

Meaning is at the heart of play from a Vygotskian perspective. Vygotsky argued that "meaning predominates in play" (Vygotsky, 1978, 101), whereas the opposite is true in reality. As such, play participants act more consciously with the conceptual meaning that constitutes the rules for action in the imaginary situation. This focus on meaning, on how one's conceptual knowledge is actualized in play, is key to human learning and development. Meaning making is central in play and its potential for expanding and deepening children's understanding of the world and themselves through it, is not only developmental in the intellectual sense, it develops human freedom.

This oral paper explores how play-based teaching and learning approaches develop freedom, drawing upon the work of Vygotsky, Fleer, Van Oers, Bodrova, Derry, Brandom, and Spinoza, amongst others.

**Format:** Paper presented in a Paper Session

# Practice of teachers' training on the basis of the ideas of cultural and historical psychology of L. S. Vygotsky (424)

Alexey Obukhov *(Independent Researcher)*

In Russia, new standards of education, which are built in many respects on the basis of the ideas of cultural and historical psychology, are accepted. It is natural that there has occurred a question of modernization of vocational training of the teacher who would not simply listen to or read about these ideas, but would work out their practical way of realization in their everyday practice, self-reflect this experience, embody trial action with children, and self-reflect it again. As the basic ideas of L.S. Vygotsky and his school of sciences, the basis of the concept of modernization of pedagogical education was formed through the following concepts: the development as mastering the culture; the concept of age and logics of an age periodization; a ratio of training and development in a zone of the next development; the change of a social situation of development and crises of a growing; the roundabout ways of development; the causal biography; cultural mediation of the development of the highest mental functions; etc. The fundamental principles of modernization of pedagogical education are the following: logics of creation of education "from an action to a thought" (a practical action with its video fixing – the criteria analysis of this action – the development of the theory describing action mechanisms – the following level of practical action) and social constructivism as the leading way of activity in the situation of uncertainty and variability. The experience of introduction of this model (about 2000 people) within three years has shown its efficiency.

**Format:** Paper presented in a Paper Session

# Signs of Learning, Signs of Failure, and the Struggle for Recognition

Kevin O'Connor  *(University of Colorado at Boulder, USA)*

Contemporary educational institutions are, as Kress (2012) has noted, in an unsettled state brought about by broken linkages among school, society, and economy. "The social," he argues, "is marked by multiplicity, diversity, fragmentation, fluidity, provisionality, by far-reaching changes in distributions and assignation of power, which affect the agency and the potentials of individuals" (Kress, 2012, p. 120). This has opened up a need for a reconsideration of learning, and in particular for understanding how new ways of recognizing what he calls recognition of "signs of learning" might enter into the reconfiguration of educational practices and institutions. This paper explores what we are calling students' "struggles for recognition" through the examination of different forms of recognition work in a changing educational context—that of engineering education in the United States. We identify several different ways in which students' learning activities are interpreted by themselves and by instructors, and examine how these interpretations are situated with respect to "centers" (Blommaert, 2005; Latour, 1987) that make them consequential, for example by identifying students as "learning" or as "failing." We suggest that new signs of learning, which foreground learners' agency and might produce new ways of orienting to and entering into the broader social world, exist in tension with institutionalized tools of recognition that are privileged in the centering process.

**Format:** Paper presented in a Symposium (261)

# Activity approach and interiorisation – lessons from Soviet disputes (084)

Vesa Oittinen *(Aleksanteri Institute, University of Helsinki)*

In my paper, I attempt to analyse the problems contained in the idea of interiorisation, i.e. the process by which – as assumed – the subjectivity emerges by interiorising, in an active contact with the outer world, the objective cultural contents outside him and "translating" them into his inner states. This concept is defended above all by Piaget, but similar ideas have been put forth even by the Soviet school of cultural-historical psychology and the so-called "activity approach" philosophers, in the first instance Evald Ilyenkov. Less known is the critique towards the interiorisation theory proposed by S.L. Rubinstein and such Soviet philosophers of the 1960's—70's as Genrikh Batishchev. I will show that the seemingly so simple idea of "interiorisation" is actually very complicated and has deep-going philosophical dimensions. A similar debate, which the Soviet philosophers and psychologists had, was conducted already by the Enlightenment thinkers of the 18th century (the question of innate ideas). In my paper, I build on ideas presented in the recent book edited by Andrey Maidansky and me, on the Activity Approach philosophy in the Soviet Union (The Practical Essence of Man, Brill, 2016).

**Format:** Paper presented in a Working Group Roundtable

# The significance of values and ethico-moral positions for transformative learning in contexts of social-ecological and economic vulnerability: A CHAT-led exploration (217)

Lausanne Olvitt *(Rhodes University, Environmental Learning Research Centre)*

Values and ethico-moral positions are of significance to CHAT researchers because, (i) they are historically emergent in sociomaterial and cultural systems, and (ii) they influence agentive actions. However, investigating and understanding these 'invisible' dimensions of activity systems poses theoretical and methodological challenges. This paper draws on a case study of how the ethico-moral dimensions of tree-planting activities influence the environmental learning processes of teachers and learners in a school in a small South African city. The paper describes how values (explicit and tacit) and ethico-moral positions are dispersed and influential across all aspects of the school greening activity system and play an important role in the actualisation of individual and collective agency in relation to the object of the activity system. The case study's data suggest that ethico-moral engagement is not just ideational but is also entwined in the material relations and embodied experiences of tree-planting activities. These insights invite further exploration of the development and significance of values and ethico-moral positions in the transformation of human activity. The paper argues that such explorations are especially important for current and future CHAT-related research and interventions in contexts of environmental risk and rapid sociocultural and politico-economic change.

**Format:** Paper presented in a Paper Session

## A need for negotiations? Coordinating the uses of building information modelling in designers' collaboration (206)

Sami Paavola *(University of Helsinki)*

Building information modelling (BIM) is an example of advanced technology changing how work is organized. BIM refers to a family of three-dimensional virtual model software to which data of the building elements are integrated (Eastman et al., 2011). There are many oversized promises characterized as a "BIM utopia" (Miettinen & Paavola 2014). Implementation of BIM and the aim of increasing productivity have, however, triggered real changes in construction projects. These changes challenge traditional, linearly and sequentially coordinated projects with more collaboration in all phases of the construction project (Kerosuo et al., 2015). Project partners need to agree on aims, ways of working and reconciliation of different tools and softwares in different phases of the construction project (cf. Monteiro et al., 2013, "juggling" with multiple systems). New roles of BIM-coordination have emerged being important in providing means for "parallel" collaboration (see Puonti, 2004; Engeström et al., 1997). In the presentation ways of organizing the BIM use by a BIM expert is analysed in design meetings of a construction project (for a building of an educational institution) in Finland. Besides, thematic interviews (n=21) of central, Finnish actors responsible for the use of BIM in different organizations are analysed. It seems that most actors see the construction project basically linearly where the uses of BIM are agreed at the beginning of the project and followed accordingly (traditional coordination). At the same time, the use of BIM seems to require more negotiations in different phases and by different partners of the construction project.

**Format:** Paper presented in an Interactive Paper Session

# 9 years being paya, 9 years gypsying me. A study of the life cycle in a roma community (338)

Marta Padrós Castells *(Universitat Autònoma de Barcelona)*, José Luis Lalueza *(Universitat Autònoma de Barcelona)* & Sònia Sánchez-Busqués *(Universitat Autònoma de Barcelona)*

Nine years ago, I was introduced in the Roma community of La Lluna and I found I was paya and I started gypsying me. The development is a cultural process. Thus, to approach to the development of the Roma community of La Lluna and their cultural practices is necessary to know their life cycle, how ecological transitions occur in this life cycle and what roles are associated with the different stages. To perform this qualitative research, we followed a sequential cohort design: the longitudinal component allows us to explore the ecological transitions that pass the members of the community as they grow; and the transverse component, in the form of different generations, allows us to examine how these different cohorts adapt themselves in the various transitions. Finally, the analysis consists of two axes: the analysis of the life cycle of the Roma community of La Lluna; and the analysis of how to build oneself as Roma, within a community interacting with the dominant cultural group and constantly changing. Both axes of analysis provide insight into how members of the Roma community of La Lluna develop and build their personal identity, considering the alternatives available in the community.

**Format:** Paper presented in a Paper Session

# Inclusion and retention in Brazilian higher education: Intervention research with a cultural-historical approach (103)

Miriam Aparecida Graciano de Souza Pan *(Universidade Federal do Paraná)*, Norma da Luz Ferrarini *(Universidade Federal do Paraná)*, Denise de Camargo *(Universidade Federal do Parana' e Universidade Tuiuti do Parana')*, Yara Lucia Mazziotti Bulgacov *(Universidade Positivo)* & Francine Rocha *(Psychologist, Universidade Federal do Paraná)*

Social inclusion policies have become theme for intense political debate in the context of the Brazilian higher education reforms. By expanding access, students from several social contexts are now part of the university population. Such phenomenon causes tension in the intersubjective relations and creates a greater demand for psychology services. In this sense, our interest is to investigate-intervene-create methodologies, under a Cultural-historical perspective, taking into account the concrete work and life conditions of the students, the psychological processes in transformation. The objective of this work is to present two projects that develop models of intervention based on the Cultural-historical approach, both taking place at the CEAPPE (Center for Assistance and Research in Psychology and Education), at Universidade Federal do Paraná, Brazil (PermaneSENDO Project: psychology and retention policies at the university; Project Colegas de Estudo: Tutorial Practices among university students to confront learning difficulties). These projects provided assistance to 620 students and trained 45 students until 2015. Such models, aimed at inclusive practices, allow us to make students aware of the social exclusion processes reproduced inside universities, as well as the contradictions of inclusion policies, mobilizing them to take up an active role in the transformation of these contexts.

**Format:** Paper presented in a Working Group Roundtable

# The children in learning of reading and writing: Literacy as a subjective process (179)

Karina Panizza de Sousa Pinto *(University of Brasilia)* & Cristina Madeira-Coelho *(University of Brasilia)*

This study aims to understand aspects that characterize processes of writing and reading of children who were engaged in their first writing productions, attending the second grade of an Elementary Public School in Brasília, DF. In addition to operational aspects, we seek to comprehend how children subjectivated their learning possibilities and their new abilities of expression in a writing-reading way. The work takes as its theoretical basis the Theory of Subjectivity in a Cultural-Historical Perspective (González Rey, 2005) and its contributions to highlight novel angles of the literacy process, a theme studied for so long and so many, from the Qualitative Epistemology and its tree principles: the constructive-interpretative approach, the dialogical attitude and the orientation to singularity, the instruments designed. They were: observation, conversational strategies, sentences completion, playing and writing activities developed with the children. Although this study was developed with the whole class, this work presents the case of one of the girls involved. Gabi was eight years old when the research was made. She was chosen as an example of how subjective senses of literacy and writing are not directly connected with school place, but it could have different expressions according to emotional meanings given by the children. For Gabi, the way the teacher guided the learning process in the classroom started new subjective senses about the writing process. In this way, Gabi developed a creative, subjective sense about her ability of writing and reading, also building a new meaning about her authorship competence.

**Format:** Paper presented in a Paper Session

# Minding: helping infants to join us in the sharing of attitudes and meanings (209)

Rod Parker-Rees *(Plymouth University)*

Infants are immersed in relationships with other people who actively 'mind' them – helping them to participate in the social sharing of attitudes, meanings and practices and thereby helping them to internalise a shared framework of expectations.

In this presentation, I will consider how recent research in the fields of developmental and social psychology can help us to understand how infants are helped to join in the flow of minding; noticing and sharing the goals, intentions and attitudes of other people. I will argue that Vygotsky's understanding of perezhivanie, together with Dewey's recognition of the influence of 'habitudes' and Bourdieu's interpretation of 'habitus' all suggest that participation in social interactions shapes the expectations and assumptions through which future experiences will be refracted.

Research on overimitation suggests that the distinctive tendency of humans to extend imitation beyond simply what a model does, including aspects of how actions are performed, enables infants to appropriate features of a particular culture. By paying close attention to what and how infants perform in social interactions, caregivers are able to provide marked responses which help to highlight what is culturally salient in an activity. As infants become more familiar with customs and routines, they become increasingly able to read subtle differences in how these are performed by different people at different times.

I will argue that minds can be seen as individual ways of refracting, interpreting or performing which can only be understood in the context of a social flow of minding.

**Format:** Paper presented in a Paper Session

# Reimagining refugee education: exploring the diverse learning contexts of unaccompanied young refugees upon resettlement in Norway (257)

Lutine de Wal Pastoor *(Norwegian Centre for Violence and Traumatic Stress Studies)*

The current wave of refugees to Europe and worldwide challenges the image of refugee education. The intention of this paper is to reimagine refugee education by exploring the diverse learning contexts unaccompanied young refugees participate in upon resettlement.

Drawing from a qualitative, ethnographically oriented, study based on interviews with unaccompanied young refugees (n=40), educators (n=25), and social workers (n=40), conducted in schools and group homes for unaccompanied minors in Norway, the findings emphasise the need for a holistic approach to refugee education – in and across contexts of learning. The young refugees originate from countries where access to formal schooling was difficult or had been disrupted. Furthermore, many of them have been exposed to traumatic events prior to arrival. As the educational and psychosocial needs of resettled refugees are diverse and complex, it is unlikely the education programmes provided can meet them all. Participation in diverse settings, activities, and practices beyond school may expand young refugees' opportunities for meaningful learning as well as promote their social inclusion. Facilitating access to adequate learning contexts, along with supporting their commitment to succeed, is decisive for young refugees' educational achievement, psychosocial adjustment, and inclusion in society. The paper emphasises the need for reimagining refugee education as inclusive of diverse learning contexts in and outside of school.

The cultural-historical activity and ecological approaches employed in this paper imply a holistic perspective on learning, development and psychosocial adjustment (Bronfenbrenner, 1979; Engeström, 1987; Hedegaard, 2004; Ungar, 2012; Vygotsky, 1978; Wenger, 1998).

**Format:** Paper presented in a Paper Session

# Studying the subjectivity of university students. Methodological considerations for a Qualititative Epistemology approach

José Fernando Patiño Torres *(Federal University of Tocantins)*

The University, as a formative experience for people, has been the focus of multiple empirical-analytical studies which have centered on behavioural and cognitivist aspects in a direct and deterministic relationship between the environment and individual. It is in this hegemonic panorama in the psycho-educational field that this study proposes methodological alternatives for the study of the formative, university years, inspired in González Rey's Qualitative Epistemology. For this reason, and considering the results of several studies carried out in higher education contexts, three key aspects support this type of methodology: First, understanding that methodology is an unfolding of the theory, it is necessary to develop innovative ontological concepts which confront and overcome the deterministic and static vision of individuals, their development and learning in the university context. Second, Students who participate in educational research are more than receivers or reproducers of instrumentalist applications; they are protagonists of the research in process. This view argues that the production of knowledge in fieldwork is mobilised by a researcher-participant relationship, which is subjectively configured and promotes forms of subjectivation in both actors who are involved in a reflective and sensitive way. Thirdly, the configurational logic of the researcher's thinking presupposes that the production of knowledge in the research is a hypothetical, dynamic, provisional journey and in permanent reconstruction. In this sense, we propose a concept of the theoretical model, as a possible field of significance of the reality studied, in which subjectivity and objectivity are brought together in an alternative concept of science. These three aspects go hand in hand with the proposed constructive-interpretive methodology which demands creativity, resourcefulness, and anthropological sensitivity from the researchers who contribute the cultural-historic perspective.

**Format:** Paper presented in a Symposium (174)

# Building a critical knowledge in psychology based on socio-historical psychology (153)

Chairs: Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Wanda Maria Junqueira de Aguiar *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Wanda Maria Junqueira de Aguiar *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*, Wellington Oliveira *(University Teresa D'Avila)* & Elvira Aranha *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

This symposium suggests to discuss the absence or denial of history in Psychology theoretical constructions, evidencing how naturality and history related to the production of knowledge about men, subjectivity genesis and the psychological phenomenon have been avoiding the development of critical thinking. When you don't acknowledge social laws are natural, when you lose history perspective to study human beings, when you study the person without acknowledging its social and historical constitutive mediations, you build a conservative know-how allied to social status quo, therefore avoiding or denying the individual constitution of rights and social transformation. Psychology is surrounded by the paradigm of simplicity, marked by a set of principles, such as universality, anti-history, simplification, reductionism and order, among others. Person and society, subject and object are dichotomically studied. This form of seeing humans suggest what we acknowledge as their nature: according to the contrast between objectivity x subjectivity and person x society, the possibility of acknowledging the mediation between both of them is lost. The subject can not be seen as a historically constituted subject. The social and historical perspective has an epistemological and methodological view on the need to understand the complex and historical character of subjectivity; it suggests setting a critical knowledge: able to denaturalize its study object. This research and thinking perspective aims to reach the theoretical and practical constructions, making room to think about meshing the concrete social practices and the theoretical constructions created using demands in specific contexts (situations for health and disease; educational and management processes).

**Format:** Symposium

# HIV/AIDS - Facing psychic pain

Edna Maria Peters Kahhale *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Willing to set a group health psychology faced by psychologists, some challenges require the creation of new practices considering: how the body and subjectivity articulation is shown in diseases; how the health system user becomes a historical person, embracing his determinations; how body processes are created and signified by the person at the same time they express group, social and cultural process; the debate about gender relationships and the consequences of differences and discriminations experienced by men and women in order to privilege places contemplating the exposure required to understand the complexity of health and disease for HIV and Aids-infected people, in order to gasp the adhesion process and the gender relationships crossing the treatment and the daily treatment of such people. For so, there must be a context of their social and demographic conditions; a study of the social insertion of the user(s) by analyzing and describing his life and work conditions; their family relationships (marriages and relatives) and their disease or infection history are studied; the adhesion to treatment and its vulnerabilities are evaluated and, finally, the social relationships nurtured are also built. Such thought and debate consider the assistance experience and the research in two national cities: São Paulo and Recife.  The assistance project involved individual reflection appointments and group dynamics in waiting rooms developed by psychologists and psychology graduation students, supervised by a project-coordinating psychologist in charge of the clinics. This document provides guidelines and parameters for work and formation of the mental health professional, aiming to promote health and avoid diseases; which means integrated service and research; explanation of the formation and work process: theoretical and practical qualification; programmatic monitoring and monitoring of the pairs towards self-knowledgement and personal support of the professionals and students involved in the process.  For theoretical and practical qualification, we used information about general health - promotion, prevention and assistance in public health and basic health care - and specific information related to STD/HIV/Aids and hepatitis - national, State and local programs of the area, STDs infection and prevention forms, HIV/Aids and Hepatitis service protocols; as well as the workshop on coordination of open groups.  In the qualification to set the reflection space, we approach: integrated assistance and research; meetings as a service and qualification facilitator of the professional; the role of the Free, Informed and Clear Consent Term and how to use it; how to use a psychological dialogical meeting script. This assistance and formation alternative has qualified over 100 professionals in the last seven years.

**Format:** Paper presented in a Symposium (153)

# Under the Willows, Hamilton, Canada

Ruth Pickering *(Under the Willows)*

Under the Willows is an art, garden and play program for children who have experienced violence either at home or in the community. The program aims to re-focus from disabilities and problems to possibilities and development. The artists, the materials, and the physical-emotional context of ability, creativity, cooperation and mutual support provide an environment in which children extend themselves, develop and create. With access to nurturing relationships, opportunities to explore the world of nature and artistic expression, while working cooperatively with other children and adults, the children experience themselves as whole unique persons with talents and offerings not only in the Garden but also in their lives outside.

For 12 years, amidst creative play themes of healing, rescuing the victimized, and healing the injured, the program has struggled with how to respond to children insisting on including multiple types of violence in their play. Recently the staff has used improvisational techniques to encourage alternate story lines by 'yes-anding' ideas into active, multi-character narratives where musings land, are radically accepted and heightened. The result has been an exciting transformation: this year the children did not choose to play-murder their way to power. They put down their guns.

**Format:** Paper presented in a Symposium (111)

# The importance of the Songbook for the morale of troops in combat situations – the experience of the first group of Brazil's fighter aviation (187)

Maria Luiza Pigini Santiago Pereira *(Pontifícia Universidade Católica de São Paulo (PUC-SP), Brazil)*

In research on resilience factors in First Brazilian Fight Group (1st GAvCa) in its operations at Second World War, a rich musical manifestation was observed, used by this group to mark important moments of lived experience. More than an activity of leisure, its emotional effect was noticed, working on the state of spirit and courage of the fighters. A check of this form of expression in the 1st GAvCa veterans helped to find that it not only accompanied the formation of the "esprit de corps", but also marked the major events and experiences lived, acting as a form of expression and organization of the emotions raised, revealing a coping mechanism of the various demands experienced in this war situation. Thus, the Songbook can be detached as a vehicle for some of the community resiliency factors achieved by this group. To illustrate this reality, will be highlighted, in the present work, the songs shared that were considered more representative in terms of the time in which they were raised, the remarkable experiences that have registered and the portability of the messages they have sent. One of the examples is the Brazil's fighter aviation, composed after a military offensive sortie, like a parody of a carnival's little march, in evidence at that time: "I spent the carnival in Venice, taking some" "firecrackers from here"...

**Format:** Poster

# A moodle-based professional development program for teaching NoS in elementary science students (255)

Panagiotis Piliouras *(Teacher advisor (PERISTERI, Greece))*, Katerina Plakitsi *(University of Ioannina Greece)*, Efthymios Stamoulis *(University of Ioannina)* & Nektarios Tsagliotis *(University of Crete, Rethymno, Greece)*

Our paper concerns a Moodle-based professional development program, which is being implemented during the academic year 2016-17, aiming to improve the teaching of the Nature of Science (NoS) in twenty Greek elementary science classrooms. Research literature has consistently called for teaching NoS as the necessary foundation for increased science literacy for students. After the implementation of a developmental work research in which four teachers participated, aiming to improve their understanding of NoS and their abilities to teach it effectively to their students, we designed a distance learning professional development program for the purpose of training twenty science teachers who declared their interest in refining their teaching practices on NoS. Through engagement in online activities on Moodle, exemplary materials, case studies from the history of science, annotating videos, discussion forums, etc., teachers are exposed to various tools and teaching and learning strategies in order to design and develop NoS materials for their own students to be uploaded on the platform. Moreover, to accomplish our goal, we will guide teachers appropriately through the Moodle platform to analyze their own teaching practices and trace evidence of effective NoS teaching. An observation form will be used to document four teachers' practices concerning NoS teaching, which will be used as case studies. Qualitative methodologies will be used to analyze the VNOS-D questionnaire, extracts from the discussion forums to gain a richer understanding of how the teachers' NoS ideas and NoS teaching practices differentiate before and after the Moodle-based professional development program.

**Format:** Paper presented in a Paper Session

# Explorations in Science Education through the lens of Cultural Historical Activity Theory (CHAT)

Katerina Plakitsi *(University of Ioannina, Greece)*, Eleni Kolokouri *(University of Ioannina)*, Efthymios Stamoulis *(University of Ioannina)*, Eftychia Nanni *(University of Ioannina)*, & Charikleia Theodoraki *(University of Ioannina)*

The @fise research group at the University of Ioannina, Greece focuses on the establishment of Cultural-Historical Activity Theory (CHAT) as a substantial paradigm in Science teaching. The growing interest of global educational scientific community has a strong impact on the research work and contributes to the emergent agenda of STEM education. Research work has proved that CHAT as a tool for designing and analyzing science activities offers the dynamics to explore the multiple roles, the division of labour and the tools used to achieve a prosperous educational process. Within this frame, research was conducted in order to design and analyze Science Education activities in the following cases: • A science teaching program for primary schools enriched by the History and Philosophy of Science as well as ICT technologies and based on Engeström's expansive learning. • Design and analysis of Science Education activities in order to study the interactive systems that are formed during science teaching as well as the role of the teacher. • Development of an Innovative Science Curriculum for the early grades in order to introduce teaching scientific concepts by using cartoons. • Development of a distant learning course in order to design teaching materials, supporting tools, and a teacher education curriculum for living things. Results have shown that CHAT offers a cross-scientific field of action in which authority and expertise are put under question. Furthermore, authority transforms from personal to collective activity in the sense that the learning experience is totally related to the social environment the individual was grown up.

**Format:** Paper presented in a Symposium (175)

# Curriculum adaptation as a social instrument to compensate for differences experienced by deaf students

Lucineide Pinheiro *(Federal University of Sao Paulo (UNIFESP, Brazil))*

To attend to the diversity in the classroom, in an inclusive educational context, the school needs to adjust and enable a proper environment, so that everybody learns and develops their potentialities. It has to rethink the paradigms that base its actions and combine approaches that can offer educational responses to the students' differences, their capabilities and interests. A tacit principle of inclusive education, the treatment of diversity requires not only that the space of the school and the classroom be shared by all, but that equality of opportunities become a reality, especially, regarding the development of cognitive competencies and cultures, directly related to the curriculum. The debate about equality of opportunities starting from the curriculum, in this context, becomes essential, because it is at school that the students build the base of their cultural education. However, according to Sacristán (2000), it is difficult to find equal opportunities in the curriculum because of the different sociocultural origins of the students that enter the school. Nevertheless, the authors suggest that there should, at least, be a curricular proposal for social compensation of differences, since they will hardly be fully equal. Socially compensating the differences would be a way of treating the diversity within the scope of the school, so that everyone could internalize the common curricular basis, and bearing in mind their cultural differences. This can be implemented by different formulas in search of pedagogical effects that approach the equality of opportunities. An effort must be made, however, to alter the teaching methodology, invest in teachers' continuous education and adapt the syllabus. This is the principle of comprehensive education: to make efforts at different levels and of different kinds so that everybody has access to the basic curriculum. Concerning the students with specific educational needs, Vygotsky (1924) points the path of compensation as an educational model. In his studies, the "less" of the disability becomes the "plus" of the compensation. The proposal doesn't consist in eliminating the disability, but in reducing the difficulties generated by it, because, although the origin of the shortfall is organic, overcoming it must be social. It is fundamental, therefore, to create an enabling and integrating learning environment that will promote development, and this is carried out by the teacher - who is responsible for searching for alternative routes and different strategies that may conduct to the development of the superior psychological functions. Looking from this angle, the selection of cultural contents must be even more careful, since it is through them that the cognitive development of the students will take place. The National Curriculum Guidelines shares this idea, by affirming that the concept of inclusive schools implies new positions regarding the curriculum, the methodology of teaching, teacher education, evaluation, the learner's attitude and the different ways of social integration (Brasil, 2001). From this perspective, the different students' profiles that enter the school need to be considered in the curricular construction and development, as well as the individual peculiarities, so that what Young (2000) calls "internal exclusion" does not occur, thus creating discrimination zones, in which, although the students are in the same class, they are separated by the curriculum. Thus, the curriculum of the inclusive schools has to differ from the traditional approach, where students' shortfalls are emphasized, leading to a depleted curriculum and misrepresentation of its reality, with precarious shapes of evaluation and a controversial planning. Aims to, in this way, a flexible curriculum - essential for the implementation of inclusive proposal - attentive to the needs of students and seeks to adapt, because its design that everyone can learn, though in different ways. A curriculum that boosts the organization of learning and that gets ahead of the development of the student, through good teaching. If, as Vygotsky affirms, learning that is well organized boosts development and generates new learning, then the school, especially the teacher, must be attentive to the "good teaching" mediational procedures also for the deaf students (Oliveira, 1993). in other words, to mediational processes that are capable of promoting a meaningful teaching and learning process, that values the student's potential, their previous knowledge, the daily concepts and the zones of proximal development - ZPDs, defined in Vygotskian terms, as the distance between the level of the real learning and the level of potential learning. In view of this, it becomes necessary to adapt the curriculum in a way that the contents addressed in the classroom, the integrative experiences promoted by the

school and the construction of meaning upon the aspects of the culture historically transmitted be accessible, despite the different nuances of learning. This means creating opportunities and specific contexts of action in which the students develop, discover and make evident their abilities and competencies. And this happens when the school mobilizes, focused in educate and answers for everyone. The idea consists, therefore, in making sure that the curricular adaptations are constituted as tools that welcome and celebrate the differences in the classroom. Regarding the deaf students, the prescribed adaptations at the level of national politics of teaching- learning includes the use of specific materials and equipment, written texts complemented with elements that favor their understanding, sign language, alternative communication system adapted to the possibilities of the students in the classroom, classes for speech and rhythm training, and visual material of support to favor the grasp of the information orally exposed (Brasil, 1998). These and other curricular adaptations are fundamental in order for the deaf students to have an environment with varied possibilities, fundamental for the learning and social and educational integration. In this direction, this paper, dissertation thesis, aims to investigate how the curricular adaptations have been implemented at mainstream education schools that have deaf students enrolled. It also aims to critically understand if the relation between the participants - researcher and research participants - contributes to the development of the curricular adaptations. Supported by Vygotsky's sociocultural historical theory, the research is also based on contribution found on National Teaching and Learning policies and on authors as Bueno (2001), Mendes (2006) and Fidalgo (2006), who discuss the inclusion issue. Methodologically speaking, it follows a qualitative paradigm, using the Critical Research of Collaboration (Magalhães, 2014; Fidalgo, 2006) that enables the researcher to intervene dialogically and dialectically to transform whatever requires new perspectives. The collaborative research has been featured as an innovative path more related to the educational field because it turns its attention to the transformation of the subjects and the learning and development situations that can occur collectively at the educational institutions. The data were collected by observation of Portuguese classes of teacher that teach at elementary schools, in classrooms that have deaf students enrolled, besides the use of interviews and reflective sessions (Magalhães, 2006). Partial results show that curricular adaptations in the educational project - translated as adjustments and flexibilities in the school curriculum that does not always generate individualized adaptations - in the curriculum level developed in the classroom - procedures performed by the teacher that emphasize how to make and refer to changes in the methodological didactic aspects that promote active student participation in the teaching-learning activities - and at the individual level - consisting of the teacher's actions focused on assessment and individualized care to the student, in order to understand the factors that interfere and / or hinder their teaching-learning process - has not been implemented by teachers in curriculum development. This stems in part from deficits in initial teacher education and the lack of continuing education in the perspective of professionalization - that recognize as producer of their professional identity and outlining the basis of its performance before problems situations -, thus showing unprepared to act against diversity. The results indicate also that the relationship between researcher and contributes to the development of curricular adaptations, although it is a priority to invest in initial and continuing training of quality process. Upon the exposed, we understand that it is pressing to think about the curriculum when it comes to the education of deaf students as per the inclusive educational perspective and to promote the creation of schools for all. That is why it is central that the schools establish support systems for the teacher, alters the methodology and the narrowness of the curriculum, in order to attend to and provide the development and learning of everyone. When talking about curriculum at the level of inclusive education, we want to highlight that the paper does not intend to recreate it, with content suppression or elimination of subjects, as if the students with specific needs could not learn as the others. On the contrary, it is about adapting the curriculum, considering the students' specificities, focusing on their capabilities and the zone of proximal development. In this way, the curricular adaptations are set as acting possibilities to face the students' difficulties. What is aimed for is the search of solutions for the specific needs of the students and not a learning and teaching failure (Brasil, 2001). What is intended with such proposal is that the school adapts itself to the students, in order to offer them the fundamental conditions for their access and permanency, in favor of a high-quality education for all.

**Format:** Paper presented in a Symposium (307)

# Transformative activist stance-based pedagogy in the first-year psychology seminar: Students' authoring the tools of agency and development

Dušana Podlucká *(LaGuardia Community College- City University of New York (CUNY)*

Increasingly, community colleges have invested heavily in innovative pedagogical practices that move away from the traditional transmission type of pedagogy. Among these innovations termed high-impact practices, first-year seminars (FYS) play a prominent role. The rationale for FYS is to ease incoming students' transition to college, promote students' learning and retention, and introduce them into their majors. This presentation discusses a semester-long, collaborative, inquiry-based research project I developed with students in a FYS Psychology course in an urban community college in New York. My pedagogy was rooted in principles of TAS, which highlights learning/teaching as a process of accessing, co-constructing and authoring the tools of agency and identity development (Stetsenko, 2016). The implementation of this course was based on a critical-theoretical approach (Vianna & Stetsenko, 2014), which connects knowledge with social practice, thus providing students with cultural tools that enable them to critically analyze and position themselves as agentic members of their emerging professional communities and cultural worlds. Specifically, in this project students explored the process of Becoming a College Student in an urban CC in New York City, as they engaged in all steps of the research process while utilizing ePortfolio (a web portal) and other digital technologies. This project also integrated aspects of advisement, orientation to college, and student self-development. This presentation will discuss the accomplishments and challenges of this course, including different ways of collaboration among students, development of communities of learners, engagement in critical discussion of institutional practices, students' understanding and development of authorship and ownership of scientific knowledge as socially produced, and the importance of reflecting on these processes. I will also discuss challenges of teaching the class and implementing project-based learning, such as the socio-emotional aspect of learning, students' resistance to participation and compliance with course requirements, and my continuous efforts of addressing them while revising my teaching practice and pedagogy.

**Format:** Paper presented in a Symposium (270)

# Addressing persisting gaps and inequities in American community colleges by connecting student agency and social change through transformative activist educational practices (270)

Chair: Dušana Podlucká *(LaGuardia Community College, CUNY)*

Dušana Podlucká *(LaGuardia Community College, CUNY)*, Eduardo Vianna *(LaGuardia Community College- City University of New York (CUNY))*, Michael Rifino *(Graduate Center, CUNY)*, Francisco Medina *(Graduate Center, CUNY)* & Kim Rybacki *(Dutchess Community College)*

Community colleges (CC) comprise the largest single sector of American postsecondary education, enrolling about 45 percent of all undergraduates, and have been singled out by US President Obama as the country's most powerful tool to improve the chances of the underprivileged. However, the educational visions of CC remain divided between the conservative agenda, focusing on students' preparation for the entry-level job market, and the liberal approach that focuses on broad knowledge and preparing students to deal with the complexity and diversity of the world. The overarching goal of this symposium is to contribute to advancing current educational approaches for CC students. Grounded in cultural-historical activity theory expanded by the transformative activist stance –TAS (Stetsenko, 2008), the papers suggest ways to work in solidarity to break away from a narrow, commodified educational agenda focused on utilitarian learning outcomes geared toward social mobility. Importantly, the papers in this symposium highlight the role of projects collaboratively implemented by both students and faculty/researchers that endeavor to develop activist projects of social transformation in CC and beyond. The symposium will open with the discussion of existing transformative approaches and critical examination of different conceptions of transformative education and exploring the possible alternatives that would address existing contradictions. The presentations provide specific examples of pedagogy based on TAS approach in two public CC in New York, specifically, in the context of a voluntary peer-based learning community (PALC), teaching psychology classes and developing a collaborative research project with first-year psychology students.

**Format:** Symposium

## My answer to this has already changed: How two novice English teachers understand the teaching profession (192)

April Poindexter *(Georgia State University)*, Michelle Zoss *(Georgia State University)* & Sarah Klein *(Georgia State University)*

New teachers have complex stories to share about their experiences with teacher education and subsequent entry into their first jobs. In this presentation, we examine interview transcripts with two new teachers as they began a teacher education program, finished student teaching, and completed their first year as professionals. Our analysis was a two-pronged approach: We conducted a collaborative inductive analysis of transcripts focusing on the goal-oriented, tool-mediated action that the teachers described in their experiences, and we created images as complementary visual representations. Using both language and image as analysis, we discuss how the sociocultural contexts of family backgrounds, schooling, teacher preparation, and the preservice and professional teaching contribute to the development of two novice teachers and their perspectives on what it means to teach in urban schools. We show how the teachers anticipated working in their chosen profession and how their expectations changed over time in relation to organizing their lives, interacting with students, and managing their senses of optimism, fear, and trust that they had chosen the right job for themselves.

**Format:** Poster

# Methodological challenges associated with "life histories" in cultural-historical approach (229)

Renata Pojar *(University of São Paulo)*, André Machado Rodrigues *(University of São Paulo)* & Rodolpho Leite *(University of São Paulo)*

Frequently, studies in cultural-historical activity theory (CHAT) are methodologically supported in practice centered analysis and, therefore, the questions that may be done in research methodological design are primarily about what people are doing, what they are pursuing and what sort of practice they are changing. This type of questioning provides a rich picture of what activity people are involved in, the local research methodology of observing and intervening in practice along with qualitative data analysis seems the natural choice for CHAT researcher. Nonetheless, a great deal of connection between and within activities are historically developed and might not be accessed by scrutinizing the current practice alone. Particularly, when the researcher is interested in long term transformations and enduring processes the methods available apparently lost their thickness since it might not grasp the concrete subjectivity production for theses contexts. In this paper, we discuss the possibilities of CHAT researchers to incorporate the life history – biographical approach – as one of the core methods in developmental research. From our point of view, the first step in adopting life history as method is to overcome theoretically the widely propagated dichotomy between individual and social in subjectivity production. In order to illustrate, we present six in depth interviews with young teachers who decided to teach Science in public schools in vulnerable urban scenario in São Paulo/Brazil. Although our discussion is essentially centered on methodological challenges, the examples presented in this paper might help to add some concreteness in the research development.

**Format:** Poster

## Ideas of H. Werner and L. Vygotsky as a basis for understanding emotional dysregulation in self-injurious behavior (393)

Nataia Polskaya *Moscow State University of Psychology and Education; Faculty of Counseling and Clinical Psychology; Department of Clinical Psychology and Psychotherapy)*

Emotion dysregulation in self-injurious behaviour (SIB) is considered one of the mechanisms underlying the development and reinforcement of this self-harming behaviour. We apply the principles of differentiation (H. Werner) and cultural mediation of higher psychological functions (L. Vygotsky) to the development of emotional regulation. Thus, we consider emotion differentiation and cultural mediation of emotions basic methodological frameworks to the problem of emotional dysregulation. We describe different impairments in the domain of emotions frequently discovered in studies of self-injurious behaviour.

**Format:** Poster

# A case for mixed method research of (horizontal) expertise development (350)

Jelena Popov *(UCL Institute of Education)*

CHAT research tends to be predominantly qualitative. In this presentation, I argue that there is merit in using a mixed method research design (quantitative and qualitative methods) in CHAT research.  First, I show that there are no strong conceptual reasons for the tendency to adhere to mono-methodology in CHAT. I explore, what I see as, the proto mixed-method arguments of some of the foundational figures in CHAT (e.g. Vygotsky and Luria), as well as some contemporary arguments (e.g. Ercikan and Roth).  Second, I illustrate this argument by presenting a mixed-method study of graduate expertise development in internships. I discuss the way in which drawing on CHAT enabled me to (i) extract new insights from existing datasets about expertise development in an internship, (ii) develop and deepen these insights in a focus group discussion with students and graduates, and (iii) integrate the insights from surveys and focus groups study on expertise development in internships. I show that both quantitative and qualitative evidence supports my explanatory model of 'horizontal expertise'. By horizontal expertise of graduates, I mean the ability of students after an internship to reason from the perspective of the employer about themselves, their expertise and the world of work, to understand the importance of using their skills and knowledge in occupationally specific ways, and to anticipate whether a particular occupational pathway is for them and make the decision about the direction in which they wish to go next.

**Format:** Paper presented in a Paper Session

# Comparative study of the theory of didactical situations and the theory of developmental instruction: teaching mathematics in elementary school

Elena Polotskaia *(Université du Québec en Outaouais)* & Helena Boublil-Ekimova *(Université Laval)*

The theory of didactical situations, developed by Brousseau (1988) in 1970-90 became central to the whole study of didactics of mathematics. Currently used by many researchers around the world, this theory joins the constructivist view of learning initially proposed by Piaget. At the same period of time in Russia, Davydov (2008) and his colleagues built a theory of developmental instruction based on the Vygotskian idea of the cultural-historical nature of teaching and learning. Researchers in Russia and in many other countries successfully apply Davydov's theory by creating new curricula and instructional innovations. Although the philosophies behind the two theories are distinct, the subject matter in both theories is the same: the teaching and learning of mathematics. This leads us to compare some important propositions emerging from the two theories and their implementations in the design of teaching/learning activities. We identified several key ideas within the two theories which we would like to discuss. We will conclude by highlighting the complexity of the subject matter: the process of teaching/learning of mathematics in a school setting. Both theories contribute to our understanding of this process, and both propose important ideas about how it can be regulated in order to achieve better results. However, neither of these theories is complete in the sense that there are still many aspects of learning and teaching that are absent in these theories. For example, new developments in neuro-education challenge our understanding of how new knowledge is absorbed by the brain. We also lack in-depth studies of teacher's behavior during activities management in the classroom. Further theoretical work is necessary to connect different bodies of knowledge in order to understand the complexity of the teaching/learning process.

**Format:** Paper presented in a Symposium (078)

# Analysis of the mediated concept of quality: Australian Early Years pre-service teachers' views (362)

Anna Popova *(Australian Catholic University)*

Research question: How does the concept of quality of Early Childhood provision is mediated through University teaching/learning process followed by practicum at the early stages of undergraduate pre-service teachers' journey?

The aim of the presentation is to develop a discussion around the preliminary findings from the above project. The project explored how the concept of quality of practice provision in early years was mediated in the teaching/learning and practicum contexts, in which undergraduate pre-service teachers in a University in Victoria, Australia, learned the ideas about quality in settings and university studies.

The project questions the traditional view of teaching the concept of quality, i.e. learning the curriculum, and applying it accordingly to satisfy assessment criteria. In particular, this project analyses the data from 10 interviews and 2 focus groups discussions to show instances of 'implicitly' mediated vs. 'explicitly' mediated concepts (in practicum and in university context respectively) (Wertsch, 2007, p. 180). The analysis helps investigate ways in which quality can be understood, taught and learned as a mediated cultural-historical process, and not a one- directional stream from theory to practice.

The audience is invited to discuss cultural/historical implications to teaching and learning of quality as a mediated process in their own contexts.

Wertsch, J. (2007) Vygotsky and Culture. In M. Coles, J. Wertsch, & H. Daniels (Eds.), The Cambridge Companion to Vygotsky. Cambridge University Press.

**Format:** Paper presented in a Working Group Roundtable

## Can do? Does do? Understanding children with down syndrome's responses to the development of an app (399)

Jill Porter *(University of Reading)*

This poster presents quantitative and qualitative data from three iterative cycles of developing a bespoke App for children with Down Syndrome. The aim of the App was to support children's awareness of quantity through an inclusive game. Their responses to the digital game are considered alongside that of a non-digital card game.

Data from the cycles chart the shift towards hands- on engagement as the format of the game evolved to find the optimal levels of challenge. More importantly, data signaled the interrelationship between children's cognitive and affective responses to the digital game. This raises the important issue of the meaning of errors or mistakes for individuals. Children appeared to understand and position the game in different ways. This shaped their likely continuation when they encountered difficulty. On the one hand, these data illustrate the importance of finding the optimal level of challenge through aligning the game mechanic to the target skills, strengthening levels of access and careful gradations of attentional demand. On the other, they highlight contextual contributors to children's engagement with the activity and the likelihood of it serving as a learning tool.

**Format:** Poster

# Methodologies to answer research questions in school based development (008)

May Britt Postholm *(Norwegian University of Science and Technology)*

Much research shows that the best arena for teachers' learning is their own school. The teachers together with the leaders at the school can thus form a learning community. The object in activity theory is the true motive, and therefore such an object has to be constructed. In formative interventions (Engeström & Sannino, 2010) the problem or the starting point for development is a problem perceived of the practitioners. The researchers' role is to sustain and provoke expansive transformation process led and owned by the teachers. The researchers' role here is to be patient and lead the teachers and their leaders in discursive processes that can lead to a common object which really can be the true motive that they want to act on. In the processes of finding contradictions, the teachers can come to that they want to improve their practice with regard to classroom management and that they want to use observation and reflection as learning tools. The next step is to conduct analyses to find out how they had done (historically) and what they actually do (empirically) with this question guiding their analyses. The paper focuses on how the researcher can develop research questions throughout the development process, and conduct data gathering and, furthermore, analyze this data material. The paper shows how traditional qualitative research methodologies can be used in intervention research. A model that shows the complex role of the researcher in such research is presented.

**Format:** Paper presented in an Interactive Paper Session

# Expansive learning in and between organizations: The teacher education institution and school as arenas for learning (009)

May Britt Postholm *(Norwegian University of Science and Technology)*

This article focuses on the collaboration between teacher educators and leaders and teachers in school. The problem formulation that guided the study presented in the article was the following: "How does school-based development influence learning in the school and teacher education institution?" The data material was collected through qualitative interviews with groups of teachers and leaders at three schools and a group of teacher educators. Within the CHAT framework, the concepts of boundary crossing and development transfer have functioned as analytical tools in the study. Furthermore, the concept of expansive learning has directed the analysis of the findings. The study shows that collective collaborative learning is a positive form of furthering the professional development of teachers and that both structure and culture can lay the foundation for and should interact with each other to foster professional development and thus lead to the school as a learning organization. It is also obvious that the activity in school-based development leads to learning for the teacher educators. The organizational environment at the University encourages non-social thought and action, and researchers seldom think of themselves as part of a university collectivity in which they collaborate. As the school-based development project requires that teacher educators collaborate, the project can contribute to more collaborative action at the university and thus more learning. The study shows that the development of research competence can enhance development and learning in both organizations and also improve the developmental transfer between these two arenas.

**Format:** Paper presented in a Paper Session

# A case study of writing withs in biology: Tracing laminated, dispersed, and diverse networks of semiotic remediation in scientific authorship

Paul Prior *(University of Illinois at Urbana-Champaign)*

Prior focuses on a case study of the authorship networks of a biologist in a post-doctoral position to consider the dispersed, complex, historical withs that emerge in disciplinary authorship. Research on scientific writing has generally taken institutional networks as the locus of disciplinary and scientific authorship. For example, Blakeslee (2001) traced a physics professor and graduate student/post-doc co-authoring a series of texts, noting the intense and repeated cycles of writing, response and revision that they undertake. Prior (1998) traced how seminar meetings and cycles of document review within a sociology research team shaped graduate student writing and disciplinary argumentation in dissertations, preliminary examinations, and conference papers. Myers (1990) considered how processes of disciplinary review of grants and papers came to shape disciplinary texts, identities, and research activities; he also highlighted the very significant role that editors played in translating such specialized accounts into popular science. Lillis and Curry (2010) traced the varied networks that researchers who speak English as an additional language turned to for disciplinary publication in English, literacy brokering that ranges from recruiting co-authors to seeking the assistance of friends, English language teachers, and translators. Across these studies, co-authorship has mainly followed institutional roles (explicit co-authors, others in the lab, reviewers and editors). In this case study, drawing on discourse-based interviews, ethnographic observation, and intertextual analysis of draft and final texts (including peer-reviewed articles and grant or fellowship proposals), Prior traces a more complex trajectory of participation in authorship. The analysis goes beyond formal institutional maps of anchored activity systems (labs, journal review) to include interactions with family members (her spouse and parents), friends and others (e.g., former faculty, former lab members); with varied genres of texts; and with experiences that assemble different disciplinary and lifeworld perspectives. Writing withs then must be traced across laminated trajectories that are not defined by the maps of anchored activity systems.

**Format:** Paper presented in a Symposium (292)

# The relevance of historical-cultural theory to critical school psychology in Brazil

Marilene Proença *(University of São Paulo)*

The relationship between psychology and education in Brazil begins in the 19th century. The knowledge of psychology and the practices developed by psychologists in education are subject to review under the influence of Marxist thought, from the discussions in the field of Sociology and Sociology of Education, Philosophy and Philosophy of Education, Psychoanalysis and Social Anthropology. Such criticisms have focused on: a) the object of study of School Psychology and their epistemological basis, b) the method of investigation; c) the practices developed by the schooling and d) the purposes of psychologists in school education. In the midst of such criticism, historical-Cultural Psychology presents theoretical and methodological perspective while allowing to understand learning and human development on materialistic concept, cultural-historic unveiling key aspects that contribute directly to unveil the complexity of schooling. In School Psychology in a critical perspective, school difficulties are understood as an expression of social, cultural, educational, political and institutional aspects. The methodological, historical and cultural criticism of School Psychology in Brazil materializes basically into three main dimensions: 1. in research and teaching, with the establishment of more than 50 research groups and in disciplines in undergraduate courses in psychology and pedagogy; 2. in the performance of Basic and Higher Education professionals; 3. in political activism through the formation of collectives that fight for advances in the construction process of humanization of the social, as the founding of the Forum on Medicalization of Education and Society. In this session, these aspects will be discussed.

**Format:** Paper presented in a Symposium (093)

# Cultural development of children with special needs according to the experience of psycho-pedagogical family support center "Keys" (180)

Yuliya Prokhorova *(Institute of Psychology n.a. L.S. Vygotsky)*

The number of children with disabilities in Russia at the age of 18 by 2016 is 620 thousand, and not all of them get professional help. It is really necessary to create a new educational technology that satisfies the request for high-quality early multidisciplinary support.
Our experience shows that the programme of education and training, based on Vygotsky's cultural-historical theory, does not lose its relevance, and it even copes with the expectations of the society on its way to the development of effective psycho-pedagogical assistance to the special families.

Psycho-pedagogical family support center "Kluchi" (trans. from Russian - "Keys") was founded in 2009 by the specialists of Vygotsky's institute of psychology in Moscow. This is a unique institution in the country where the cultural-historical theory approach is fully implemented towards children with developmental disorders functioning in the mode of kindergarten.

The key object of our approach is family. We do not just teach children and consult parents, but we live together inside their meaningful and interesting life and solve different psychological, pedagogical and therapeutic tasks within this life. The development of children with special needs occurs in natural conditions, in situations of different levels of communication with children and adults during a typical or routine day in the life of the child. Specialists attract the interest of the pupil to the learning event, manipulating the situation/activity/routine, provide necessary dosed help to achieve the result.
Leaving the Center, children have the opportunity to live and learn in an inclusive environment.

**Format:** Poster

# Child-led parenting style; positioning and influences in play

Gloria Quinones *(Monash University)*

This presentation focuses on investigating what makes up family cultural knowledge and how this informs the child's social situation of development and play. We made video observation of Luci's everyday life and took a close look at how these informed her play in long day care. This presentation draws on the work of Bozhovich (1981) who extended Vygotsky's theorization of personality formation in early childhood. Bozhovich's concept of motivational sphere includes families and societies' aspirations for children's upbringing and child's interests, performances and motives. Reflective interviews with her family indicated a greater understanding of family cultural knowledge. The case example discussed in this presentation is a family interview which revealed the parents' aspirations for Luci's upbringing. Luci's parents expressed what child-led parenting style means for their family and the affective motivations they aspire for Luci's knowledge of the world. The family's knowledge included Luci's love for music shown in her interest in the musical instruments. The family and community's knowledge were presented in the way Luci took the role of being the 'noisy neighbor'. The collective knowledge of the family in the long day care is strongly evident. We discuss what child-led parenting practices mean for family knowledge and how it related to families' affective interests and forms part of Luci's motivational sphere. It is similar to how the educator in the centre related to children by following children's lead. This reveals a consistency in family and long day care practices by following the child's lead. This shows the importance of further understanding what makes up family and community cultural knowledge and what it means for children's positioning in play.

**Format:** Paper presented in a Symposium (110)

# Teachers' collective activity: A prime site for the unfolding of agency and leadership

Gloria Quinones *(Monash University),* Maria Cooper *(University of Auckland),* Helen Hedges *(University of Auckland),* Beth Ferholt *(Brooklyn College)*

What might teachers' collective activity in early childhood education reveal about agency and leadership practice? Leadership is argued to be a significant lever for enhancing the quality of early childhood education (Waniganayake, Cheeseman, Fenech, Hadley, & Shepherd, 2012). Yet, the leadership field to date has remained largely dominated by leader-centric notions, which present leadership as situated in the individual, as a range of typologies of decontextualised skills, knowledge and styles, and as an assigned position. While the leadership field in both theory and research is expansive, a recent turn in the literature reveals a shift in focus from the individual leader to leadership as an evolving and fluid form of social activity. A practice-based perspective of leadership, therefore, assumes leadership does not exist a priori in people, as in the case of a leader's qualities, attributes, and style. Rather, it unfolds during day-to-day, goal-oriented activity as people interact, and coordinate their joint activity together (Raelin, 2016). In this manner, leadership is a process of negotiated collective activity, an idea which has relevance to the context of early childhood education where a team-based approach characterises many early childhood settings internationally. An ongoing concern, however, may be that teachers in the sector hesitate to identify with leadership, whatever form it takes, and may have minimal access to leadership constructs theorised in relation to the actual practice of early childhood teaching. This presentation draws on data generated from a qualitative interpretivist doctoral study undertaken in a large urban early childhood centre in Aotearoa-NZ. Cultural-historical activity theory (CHAT: Engeström, 1987) and Edward's (2005) notion of relational agency framed the study, which explored early childhood teachers' collective activity for the presence of "everyday teacher leadership" (Cooper, 2014). This presentation reports on a CHAT analysis of teachers' intersecting practices during group mealtimes with infants and toddlers, which I argue set the scene for the unfolding of everyday teacher leadership. The presentation provides a practice-based perspective of teachers' engagement in an underrecognised form of leadership and illuminates the potential of teachers' collective activity as a prime site for the unfolding of agency and leadership practice.

**Format:** Paper presented in a Symposium (037)

# Davydov's concept of the concept and its dialectical materialist background

Luis Radford *(Université Laurentienne)*

Davydov's work has had an important impact on western mathematics education. His work has, indeed, inspired several researchers who deal in particular with the teaching and learning of mathematics at the elementary level. Davydov's ideas, however, are not always easy to understand —and they are very easy to misinterpret. The main reason is that Davydov's educational and psychological ideas have to be placed within the theoretical realm of dialectical materialism. Without taking into account the theoretical background where Davydov's ideas move, Davydov's ideas end up meaningless and distorted. Now, dialectical materialism is not a unitary theory. Its variants range from "vulgar," "propagandistic" uncritical dialectical materialism to sophisticated accounts—such as those of Ilyenkov (1977) and Rosenthal (1959). It is a sophisticated account of dialectical materialism that Davydov embraces in his own work (Davydov, 1990, 2008). Davydov's account draws, indeed, on a precise ontological stance about nature and humans as found in the philosophical connection between Spinoza, Hegel, and Marx. The goal of this presentation is to make a critical appraisal of Davydov's concept of the concept. The critical appraisal is based, in particular, on an analysis of some concomitant theoretical constructs such as content-related abstractions and generalizations. It seeks to locate Davydov's concept of the concept within the Hegelian distinctions between the general, the particular, and the singular (Blunden, 2009; Hegel, 1991), and among the various understandings of the relationship between the logical and the historical (e.g., Zelený, 1982). This relationship seems, indeed, at the crossroad of the various dialectical understandings of movement and development. Special attention will be given to the ontological and epistemological assumptions that underlie Davydov's concept of the concept, and the educational implications in accounts of conceptual development, instruction, and the structuring of the school curriculum.

**Format:** Paper presented in a Symposium (078)

# The development of algebraic thinking in young students: A Vygotskian approach

Luis Radford *(Université Laurentienne)*

In this presentation, I draw on Vygotsky's dialectical concept of development to account for the emergence and growth of algebraic thinking in young students. Inspired by dialectical materialism, I suggest that thinking is not something produced by an isolated or solipsistic mind, nor is it something that solely happens in the head. Thinking is rather a social practice materialized in the body (e.g., through kinaesthetic actions, gestures, perception, visualization), in the use of signs (e.g., mathematical symbols, graphs, written and spoken words), and artifacts of different sorts (rulers, calculators, and so on). Psychologically speaking, thinking is a system: a sensuous dynamic unity of material-ideal units including (inner and outer) speech, gestures, tactility, cultural forms of sensuous imagination, and actual actions with cultural artifacts. Following the late Vygotsky, the development of a system, I suggest, lies in the dialectical organization and reorganization of its units. In this line of thought, the development of thinking is a process of reorganization and expansion through dynamic contradictions, which derive from the manner in which each one of the units of thinking signifies. My empirical investigation of the development of young students' algebraic thinking draws on longitudinal research in which a cohort of Grade 2 students (aged 7-8 years) was followed during five years. I focus on the following units: perception, gestures, speech, artifact- and symbol-use, and show how a dialectical sublation and reorganization occurred as the students engaged in specific teaching-learning classroom activities with their teachers.

**Format:** Paper presented in a Symposium (087)

# V. V. Davydov: Philosophy, influences, and educational ideas (078)

Chair : Luis Radford *(Université Laurentienne)*

Luis Radford *(Université Laurentienne)*, Inger Eriksson *(Stockholm University)*, Viktor Freiman *(Université de Moncton)*, Helena Eriksson *(Stockholm University)*, Elena Polotskaia *(Université du Québec en Outaouais)* & Helena Boublil-Ekimova *(Université Laval)*

V. V. Davydov has inspired a great deal of educational research in various western schools of education in general and mathematics education in particular. This symposium on some of Davydov's educational ideas, their philosophical background and intellectual influences, is located within the theme of "Foundations: Theoretical and research approaches." It brings together scholars who, from different perspectives and backgrounds, have been working within the field of Activity Theory and Davydov's ideas. Its goal is twofold. First, the symposium endeavors to offer a critical appraisal of some of Davydov's central concepts and to discuss the question of the philosophical influence in Davydov's work. Second, it aims to present some current applications of Davydov's approach to the teaching and learning of mathematics as well as to offer a contrast between Davydov's approach and other approaches in mathematics education.

**Format:** Symposium

# 12 step recovery program effectiveness analysis from the standpoint of the cultural-historical approach (427)

Maria Radionova *(Moscow state university of psychology and education (MSUPE))*

The cultural-historical approach of L. S. Vygotsky is applicable to the development not only of a child but also of an adult, for example, people with chemical dependency. One of the most successful strategies for helping the addicts is a 12 Steps program. Although it was created without the reference to cultural and historical psychology, we tried to understand the conditions for its effectiveness through the prism of Vygotsky's approach. From our point of view, the program implements the following positions:

The basis for human mental development is a qualitative change in the social situation. An addicted person, in accordance with the program, finds oneself in a special social environment - a community that conforms to certain principles and traditions, among the people who used to suffer from such a dependency, and now they can share their experience of overcoming it.

Training leads to development. The entire program is built as a sequential training. For each step, a whole system of tasks has been developed, which the addicted manages on his/her own, if necessary turning to a sponsor who performs the functions of an assistant consultant. Thanks to directive training, the addicted people acquire self-regulation. Thus, another position of Vygotsky is realized. Becoming a subject of one's own activity for getting rid of this dependency and its reflection, a person begins to change his/her life in many directions, confirmed the thesis: "one step in teaching can give a hundred steps in development."

**Format:** Poster

# High school dropouts as a challenge for counselling and student welfare

Kirsi Raetsaari *(University of Oulu)*

I describe a PhD research in the works whose objective is to understand the socio-cultural phenomenon of "high school dropouts", especially the situations in which a student ends up leaving the school without any kind of counselling. The first viewpoint is adults' experience: how teachers, student counsellors, school psychologists, school social workers and out-reach youth workers describe these drop-out-situations. The second part consists of experiences of youth, both high school students and dropouts. The third part is about developing new practices in student counselling and student welfare in order to develop the high school a better place to study and the high school community easier to fit in. The theoretical framework comes from critical and subject-scientific psychology. Methodologically this research is an action research; as a researcher, I also work as a guidance counsellor in a high school.

**Format:** Paper presented in a Symposium (253)

# Dances of meaning making, languaging, doing and repurposing in and with science and its objects

Jrene Rahm *(Université de Montréal, Canada)* & Chris Siry *(University of Luxembourg, Luxembourg)*

In this paper, we explore 'signs of learning' as emergent from elementary children's multimodal, embodied, enactment of science. We are interested in understanding meaning making, selves and identities in science, in and through dialogue which we take to be polycontextual, multimodal, multivoiced, multiscripted and creative (Vass Littleton, Jones & Miell, 2014). We highlight diverse forms of engagement in science by multilingual children in two contexts – Luxembourg and Montréal. Both cities are marked by immigration which led to transformations of language and education policies that resemble each other in some ways at the surface, while they are simultaneously tangled up in complex ways with local politics and histories of place, making equity driven, social just science education still something to work towards in both cases. Utilizing video data from qualitative case studies we conducted in both contexts, we highlight the complex ways in which children engage in science, which we see as dances of meaning making. These can be read as problematic, off-task and off-script or simply as weak academic forms of engagement. However, we look at them as bids for recognition of deep forms of engagement and meaning making in science, or dances of meaning making. We see them also as bids for recognition as a person who can do science and be in science. Through joint discourse analysis of classroom interactions, we focused on how science and self in science are made through talk and action (Mercer, 2002). We explored how students positioned themselves through their ways of talking and doing in science in both data sets, as well as how they were positioned by others in their interactions. Our collaborative, comparative analysis of data from these two multilingual and highly diverse contexts, highlight the diverse ways multilingual students "do science." They also attest to the multiple bids for recognition of self as a science learner the same students engaged in over time in each data set. Essentially, our analysis makes evident the value of engaging more deeply with the rich toolkits students bring with them and mobilize as they make making in science and self in science. In doing so, we like to offer a new imaginary of science education that builds on that toolkit and makes transcultural, multimodal and multilanguaging with and in science normative.

**Format:** Paper presented in a Symposium (261)

# Unpacking 'signs of learning' in complex social environments: How to desettle neoliberal market driven educational methodologies, epistemologies and recognitions of learning (261)

Chair: Jrene Rahm *(Université de Montréal)*

Jrene Rahm *(Université de Montréal)*, Chris Siry *(Université du Luxembourg)*, Anna Gorges *(Université du Luxembourg)*, Tatiana Garakani *(École nationale d'administration publique)*, Carol Brandt *(Temple University)*, Kevin O'Connor *(University of Colorado at Boulder)* & Jennifer Adams *(University of Calgary)*

The congress theme pushes us to engage in deep conversations about challenging issues that expand on current practice and lead to new ideas. In this symposium, we engage with the past in that we build on mediated action and mediated discourse analysis with roots in the work of Vygotsky and practice theory, frameworks with a long history in the study of learning in situ. Essentially, we are interested in the design and study of meaning making in multimodal contexts. Yet, we also do so in new ways, building on the call made by Kress (2012) for engaging deeply and possibly in new ways with 'signs of learning'. Maybe it is the commodification of education that has marginalized or erased altogether the study of creative ways of becoming, interpreting and learning that Vygotsky had so much to say about. In this symposium, we aim to re-engage with creative learning and attend to sociomaterial practices, analyzing agency as a situated process. We attend to the multimodal and multisensory and the ways they mediate the production of learners and learning, but also agency that then results in expansive and transformative forms of learning and becoming. By building on the work of sociocultural and semiotic theory and challenging current neoliberal ideals about what counts as knowing, learning, becoming and who can come to know, the symposium aims to engage in a dialogue with the audience about new ways to recognize learning and engage with learning.

**Format:** Symposium

# Building and using common knowledge for developing school-community links

Prabhat Rai *(Ambedkar University)*

Tackling the question of culture and schooling, the chapter uses the idea of common knowledge as a theoretical tool to identify responsive ways of working on children's long-term wellbeing and education. The study was in a school in rural Rajasthan, which has been successful in working with community members and parents to reduce school dropout rates. School-community meetings and teachers' meetings with family members are sites where parents, community members and teachers revealed their motives, values and intentions. The analysis shows that teachers' engagement with the knowledge and motives of community members and parents helped to create common knowledge, an understanding of what mattered for each participating group, which facilitated alignment of motives between the practices of the school, the community and the families. The analysis offers the idea of the "space of reasons" as a component in building and using the common knowledge that provides the opportunity to remain aware of each other's commitments. The analysis shows that common knowledge is not simply a dialogic exchange of what matters, but the outcome of the interplay of "conceptual commitment".

**Format:** Paper presented in a Symposium (029)

# Tracing trails of becoming: Using CHAT to understand relations between interest development and learning in makerspace classrooms

Kay Ramey *(Northwestern University)*

Making and tinkering activities have become increasingly popular in recent years and are increasingly moving into schools (Martinez & Stager, 2013), thus increasing pressure to understand what and how students learn in makerspaces. Understanding learning in makerspaces presents two dilemmas. First, makerspaces allow learners to pursue their interests. So not everyone learns the same thing. Second, makerspaces employ new tools and cultivate skills for a new labor economy that are difficult to assess through standardized tests. Consequently, I propose using CHAT to analyze learning in makerspaces, with particular attention to the concepts of history (Scribner, 1985; Vygotsky, 1966), production (Ingold, 2011; Marx & Engels, 1977), and lines (Ingold, 2011). I present the case of one fifth-grade student, Carmen, who participated in an in-school makerspace for one school year (90 minutes/week). In analyzing Carmen's case, I draw on Vygotsky's notion of history, identifying a learning outcome then examining the everyday activities in Carmen's individual history that produced that outcome (Vygotsky, 1966; Scribner, 1985). I also employ Marx's notion of production, that "[humans] produce themselves and one another…by reciprocally laying down, through their life activities, the conditions for their own growth and development" (Ingold, 2011, p. 7). Finally, I draw on Ingold's (2011) notion of lines, tracing Carmen's "trails of becoming" (p. 14) to understand how her interests shaped her learning. By year's end, Carmen was recognized as a relative expert (Stevens et al., 2016) at 3D printing. But how did she acquire that expertise? First, Carmen expressed interest in 3D printing by observing and questioning others, as they printed or maintained the printer. Later, she did these things herself and helped others. This transition was facilitated by sociomaterial changes to the activity system (Engeström, 1987). First, the instructor moved the printer to a moveable cart, connecting it to an individual computer. This allowed Carmen to assume control of that computer. Then, the instructor was absent for two weeks, allowing Carmen to take on some of his tasks, like fixing the printer. These events and Carmen's actions produced her learning. Carmen also connected her 3D printer experience with her developing identity, saying "I like helping other people with the 3D printer…when I grow up I wish to help cancer kids and become a doctor for them…the 3D printer is like a cancer kid...If it's broken, I get to cure it and fix it." This connection emphasizes the importance of "tracing the multiple trails of becoming, wherever they lead" (Ingold, 2011, p. 14).

**Format:** Paper presented in a Symposium (325)

# Building bridges between learners' out of school experience and their learning in the classroom to enhance their identity of participation (302)

Tara Ratnam *(Independent Teacher educator, India)*

This paper explores how learning from students and their communities can be harnessed to enhance their agentive power as learners. The context is my participation as a teacher and teacher educator in a two year after school English language teaching program for socioeconomically disadvantaged learners. The progressive goals of the program which sought to enhance learners' sense of the self in the classroom were diametrically opposed to the curricular goals pursued by the school which largely emphasized rote practices that muted learners' voice. In this paper, I analyze how my learning about students' everyday life in their community became the basis of my classroom pedagogical activities and helped me promote their agentive role in learning. My study is framed by a 'Funds of Knowledge' approach that seeks to value what students bring to school from their community as the basis of their school learning. It is based on Lev Vygotsky's cultural-historical psychology which provides a perspective on learning as situated. It recognizes the essential role of cultural contexts and practices in the construction of knowledge and identities of participating individuals. The data are sourced from notes of my teaching plans and classroom processes, student scripts, interview of school teachers and class observation, pictures and video recording of the surrounding community, and conversations with students and their parents during home visits. The data are analyzed inductively using emergent categories. The findings will be used to draw implications for enhancing learner autonomy in the classroom.

**Format:** Paper presented in a Working Group Roundtable

# Strategic encounters between citizens and professionals in television productions based on co-creation (254)

Tiina Rautkorpi *(The University of Tampere)*

Industrial reflexivity and splintered production processes have been connected to degeneration in mass production-based television (TV) work (Caldwell, 2008). On the other hand, distributed cognition and retrospective sense making are also celebrated as promising innovation strategies for media management and production (Küng, 2008). This study investigates how the possibilities of distributed cognition have been realised and utilised through co-creation with the audience. There are convincing reasons for a new research focus when searching for journalistic innovations in audiovisual media in the process of transition. In the latest generation working life under the co-creation theme, products and services are produced through constant interactions among the user, the producer and the product (Boynton, 1998). Furthermore, in the light of the new innovation thinking, utilising diversity in encounters is an essential approach for obtaining alternative viewpoints, leading to innovative results (von Hippel, 2005). Thus, the crucial research questions ask about the quality of interactions among the participants of the co-creative audiovisual production process and whether there is a place for response and reflection in the participants' encounters (Shaw, 2002). The other research focus is on 'multivoiceness' – how co-creation was especially encouraged in building the televisualised mode of expression. This paper presents the results of the ongoing case studies, which apply the new research design to pioneering productions for Finnish public service television in 2015 and 2016. In these cases, the research focus is on worker-driven innovations.

**Format:** Paper presented in a Paper Session

# Design experiments in online spaces: Collaborative academic blogging (190)

Kristen Rebmann *(School of Information; San Jose State University)*

This presentation charts the development of collaborative academic blogging activities for students in online spaces. The project involved extending blogging assignments to graduate student groups in four online courses.  By taking a design experiment approach, the blogging project allowed for consideration of the iterative process of infusing blogging practices into existing distance learning environments.  Bound up in these efforts was the goal of creating sustainable contexts supportive of engagement with the scholarly literature and professional development. The presentation will explore ways of designing educational practices that are contextualized within the perspectives and intellectual needs of learners.  Research questions posed acknowledge that online spaces are unique learning environments and seek to understand how researchers and designers can create contexts that are relevant to learners and supportive of meaningful learning outcomes.

**Format:** Paper presented in a Working Group Roundtable

# Understanding and responding to negativism in schooling: the potential of the 'double move' (142)

Malcolm Reed  *(University of Bristol (Bristol, United Kingdom)*

This essay considers the significance of negativism in classroom activity and its potential to provoke us to pay attention to the situation it expresses. Negativism is explored as a function of behaviour in cultural-historical theorisation of childrens development, drawing on Vygotsky's work in child psychology. The relationship in post-Vygotskian research between negativism, crisis, the social situation of development and activity setting is reviewed. Positioning and agonistic struggles in the drama of development are explored. Hedegaards practice of the double move is elaborated, with alternative yet sympathetic moves considered in conclusion for pedagogic practice in response to negativism.

**Format:** Paper in a Paper Session

# How does learning look? Critical reflection on visual data of classroom activities (271)

Chair: Malcolm Reed *(University of Bristol, UK)*

Malcolm Reed *(University of Bristol, UK)*, Alain Breuleux *(McGill University)* & Martijn van Schaik *(Meester! onderwijs inzicht | Fontys University of Applied Sciences | NCOI University)*

The problem here addresses the identification and interpretation of visual data, specifically to conceptualise instruction within pedagogy (Cole, 2009). This problem is dialectically constituted, since coming to know what classroom activity might look like is inseparable from and in productive tension with coming to know what it is to see learning through instruction.

We recognize that video data propose ways of visualizing pedagogic activity that have the potential to change – and are changing – what we take methodologically to represent human development through schooling. The prevalence of visual cultural representation in educational research offers qualitative research and cultural-historical activity research a new trend and the potential for more insight.

We propose a 'symposium of show and tell' – that is a hybridization of the symposium with the round-table format – to present short addresses concerning our own specific focus of theoretical interest (symposium) using an excerpt of video data, whilst also opening up discussion around the excerpt to the perspective of the other participants, so building a trialogic level (Roundtable).

**Format:** Symposium

# The singularization process in the sociology of individuals and in cultural-historical psychology: tenuous boundaries and intersections (248)

Teresa Cristina Rego *(Faculdade de Educação da Universidade de São Paulo)*

This paper presents the results of a study which investigated theoretical elements associated with the fundamentals of the so-called sociologies of individuals, leading to the understanding of complex relations between the historical-cultural structures and individual experiences. The main purpose is to analyze the recent academic production dedicated to the study of the sociology of singularization, with aim of identifying more deeply the theoretical guidelines, the problems and types of research undertaking by contemporary researchers who are aware of the issues of singularization, identity, socialization and their relations with the field of Education. The research project allowed to establish a dialogue, which I deem possible, between studies that have been conducted in the areas of Sociology of Education and Psychology of Education, especially between the theories of the sociology of individuals and historical-cultural psychology (advocated by L. S. Vygotsky). This goal was accomplished through the identification of the tenuous boundaries and intersections between the different theoretical models.

It is important to say that the thoughts presented herein are related to the investigations conducted in the field of Psychology of Development and of Education (and which have been approached in previous ISCAR congresses). Based on the historical-cultural psychology (Vygotsky & Luria, 1997) and in other theoretical sources, I have researched the formation of subjectivity through the ways the individual gives an account of his/her own life.

**Format:** Paper in a Working Group Roundtable

# The role of autonomy and reciprocity in everyday learning practices. An ethnographic study in Mbya Guarani communities (Argentina)

Carolina Remorini *(Universidad Nacional de La Plata)*

The aim of this paper is to examine the ideas of reciprocity, respect, autonomy, and interdependence of lives and the impact of these on children's development and health. It is based on ethnographic research conducted in two Mbya Guarani communities (Argentina). Although some cultural analyses still use simplistic dualisms such as collectivism vs. individualism or interdependence vs. autonomy, a balance between individual and collective goals and values is noticeable in many Indigenous communities. Mbya Guarani perspectives on children's growth and development emphasize the balance between interdependence and autonomy as complementary values. Daily attitudes and practices promoting autonomy and reciprocity are key for children for learning to inhabiting the forest, which implies to interact with its human and non-human inhabitants. Moreover, these values are linked to children's wellbeing and health. Using an ecological approach of human development, I describe Mbya perspectives on children's "growth" (crecimiento) and development, providing examples of environmentally relevant skills to grow up in the forest; including learning how to walk in it and developing understanding (entendimiento). These make possible children's integration in community endeavors through their active participation and collaboration in daily activities in the framework of multi-aged groups of people.

**Format:** Poster in a Structured Poster Session (077)

# Who am I? Who should I be? A case study about the emergence of values and I /self positions within Colombian cultural context (232)

Francisco José Rengifo-Herrera *(University of Brasilia)* & Angela Maria Uchoa Branco *(University of Brasilia)*

The research investigated the emergence of social values in contexts of violence. We created a playful semi-structured setting where dolls, family objects and the introduction of a gun toy set the stage for four boys, about 10 years-old, to create and enact their own story about those characters. After the filmed play session, we interviewed the boys about what happened during their story. Here we focus upon Felipe, and the way he, during his narrative, organized and reorganized his affective semiotic fields, which guided his previous actions during the play session, and his interpretations, therefore creating the basis for an ongoing construction of his social values. We also analyzed the dynamics of his I-Positions in relation to his affective organization of possible future values. Oscillations and hesitations suggested a huge tension between social roles and meanings, culturally canalized by his family, and his own, agentic affective-semiotic fields, suggesting the emergence of new I-Positions. We conclude that I-Positions are built through processes of personal affectogenesis and the socio-historical canalization of social values within specific collective cultures.

**Format:** Paper presented in a Paper Session

# 'Noisy Neighbours': Community cultural knowledge

Avis Ridgway *(Monash University)*

In this paper, we aim to examine the finer detail of community cultural influences present in a toddler's daily life, in a long day care setting in Australia. We do this in order to help answer our research question from a community perspective: How does an educator enter toddler's play and position himself actively and meaningfully in the play? To discover cultural influences in a toddler's daily life demands a methodology that takes a 360-degree view of the toddler's whole community. The significance of surrounding community culture and its context for young children's learning was suggested by Vygotsky (1994). We argue that the social situation surrounding the community childcare cooperative research site forms a vital source for the development of collective cultural knowledge for educator and toddler. The case example 'Noisy Neighbours' draws on digital visual and transcript data from research site's participant families, toddlers, educators in the community childcare cooperative (Long day care centre), and the social setting. Nestled within a vibrant, noisy environment, the research site is located adjacent to train lines, roadways, buses, cars, bike tracks, scooters, music, ball park games and a dog park; evidence of 'noisy neighbours'. The qualities of this location suggest that the keepers of community knowledge in this site help form culturally embedded influences in the lives of research participants. We see this demonstrated in the educator's awareness of the social situation through his tacit embodiment of the focus toddler's family life and the research site's philosophy. We use the 'Noisy Neighbours' case example, as strong evidence of community cultural knowledge being shared between educator and toddlers. Our findings reveal how community cultural knowledge is pedagogically enacted by a playful educator who is highly attuned to the focus toddler's social situation in the cooperative child care setting. We discover that shared community cultural knowledge can influence collective and meaningful learning for the focus toddler and her peers. This implies that a playful educator's awareness of the broader social situation of a toddler's community setting is significant in the development of collective cultural knowledge.

**Format:** Paper presented in a Symposium (110)

# Collective and individual dynamics in building a transformative activist peer-based learning community

Michael Rifino *(Graduate Center, CUNY)*

This presentation highlights the central role of positioning students as activist social actors in the dialectic process of personal and collective transformation aiming at equity and social justice. Building on the transformative activist stance (Stetsenko, 2008; Vianna & Stetsenko, 2014), I will discuss the implementation of an expansive model of transformative education reform with and for students in an urban community college in New York City. Termed the Peer Activist Learning Community (PALC; Rifino, Matsuura, & Medina, 2014), this project seeks to engage students as co-creators of activist communities of learning aimed at transforming alienating and oppressive educational practices in the college and beyond. Based on the analysis of students' learning and developmental trajectories and the project's growth as two facets of the same (i.e., unified) process, I will describe PALC's increasing impact on institutional change as instantiated by participants' learning and development, including their expanding contribution at the intersection of a range of college and community practices. Drawing from multiple sources of data, this paper will showcase how participants' evolving and growing engagement with and contributions to the collaborative project led to shifts in their own positioning and stances at various levels (i.e., in their learning goals and broader life agendas) and how these changes, in turn, spurred changes in the collaborative project itself. Specifically, this paper will focus on how PALC fosters and builds on students' strengths to demonstrate how this project serves as a site where students build on their own range of cultural repertoires to critically reflect on their college and life experiences as they master critical theoretical concepts.

**Format:** Paper presented in a Symposium (270)

# The aftermath – Chasing the consequences of a change laboratory intervention (305)

Katrin Riisla *(University of Helsinki)*, Anu Kajamaa *(University of Helsinki)*, Lasse Lipponen *(University of Helsinki)* & Antti Rajala *(University of Helsinki)*

In this study, we apply cultural-historical activity theory (CHAT), which provides us theoretical-methodological tools to explore the consequences of a Change Laboratory (CL) intervention. We carried out a CL intervention with the staff of a teacher training school to help the participants identify the school's current developmental needs and to overcome the challenges faced in the daily teaching activity. Our methodological framework for the examination of the consequences of a CL expands the existing understanding produced by previous studies through its longitudinal research approach. Our main contribution is the revealing of the long-term consequences of a CL intervention, which can be divided into a four-layered model of stabilised or contested and individual or collective consequences.

**Format:** Paper presented in a Paper Session

# From semiotic system to situated classroom interaction: teaching the logic of French grammar in Parisian secondary schools (355)

Elsie Rockwell-Richmond *(Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional)* & Christophe Joigneaux *(Université Paris Est Créteil (UPEC))*

This paper proposes a cultural-historical analysis of lessons in the French language which center on the grammatical and logical relationships of sentence structures grounded in literary texts, as is usual in traditional in French pedagogy. It draws on parallel examples of classes taught by three secondary teachers of a lower ZEP college in Paris, in which texts and exercises were being analyzed in terms of the functions and implications of complementary clauses, particularly those denoting cause and consequence relations. The data includes audio-recordings and written and photographic documentation of classroom exercises and is part of a long-term ethnographic study in elementary and secondary schooling in the French-Afro neighborhood. In the verbal exchange surrounding these exercises and examples, the link between language structure and logical thinking, a hallmark of mainstream teaching of the French language, is foregrounded. In Vygotskian terms, this allows a discussion of the strong association between "signs" and "tools" in the development of higher mental functions. However, our focus is not on the cognitive dimensions of this assumed association, but rather on its cultural-historical and pedagogical implications. Conceptually, this analysis draws on work done within the network of scholars who meet in the periodic "Séminaire pluridisciplinaire international Vygotski", and have developed specific theoretical tools centered on the study of language and verbal interaction as semiotic systems in use. This perspective helps build bridges between the apparently autonomous semiotic systems and the extremely situated and often plural uses of historically constructed and appropriated sign systems.

**Format:** Paper presented in a Paper Session

# Broadening today's Science teaching: theoretical and methodological challenges

André Machado Rodrigues *(University of São Paulo (São Paulo, Brazil))* & Cristiano Mattos *(University of São Paulo (São Paulo, Brazil))*

The current trend in Science Education might be expressed as test-oriented pedagogy. Although studies on Science Education indicate towards a very different orientation in which students should be considered as integral human beings and schooling should take into account intellectual, emotional and ethical development, the accountability systems push schools toward a restricted way of teaching which has as main target good performance in standardized tests. On the other hand, students and school community demand a more comprehensive Science teaching, which should include pupils' experiences and expectations, true connections with daily life and contemporary issues. In other words, Science teaching should regard the investigation of concrete objects that makes possible the inclusion of all those aspects. In this study, we discuss and present research results related to the development of scientific concepts, Science teaching for deaf students and activities outside of school. Drawing on cultural-historical activity theory, we underline some major contradictions and future challenges in the field of Science teaching, particularly those regarding the relationship between school and its surroundings. Even though the concept of contradiction plays a pivotal role in conceptualizing practice within and outside Science classes, some methodological issues remain overlooked. In conclusion, the cross-boundary process are usually stressful and rewarding, demanding pupils and teachers to engage in meaningful activities over the academic year. Therefore, generating a disruptive activity, which can change even more than classroom practice. From our perspective, in researching such a complex object, the methodological challenges still are in blend of understanding and transforming the reality.

**Format:** Paper presented in a Symposium (175)

# Description of a paradigm: learning by observing and pitching in (LOPI)

Barbara Rogoff *(University of California Santa Cruz)*

This paper presents a paradigm organizing learning in many Indigenous communities of North and Central America and among families with historical roots in such communities: Learning by Observing and Pitching In (LOPI). Seven facets define LOPI's key features: (1) Community organization includes children in family and community endeavors; (2) Learners are eager to contribute as valued members of their families and communities; (3) The social organization involves collaborative engagement as an ensemble, with flexible leadership as people coordinate fluidly with each other; (4) The goal of learning is transforming participation to contribute to the community by collaborating with consideration and responsibility; (5) Learning involves wide, keen attention, in anticipation of or during contribution to the endeavor. Guidance comes from community expectations and sometimes from other people; (6) Communication builds on the shared context available in mutual endeavors, with nonverbal and verbal conversation as well as narratives and dramatization; (7) Assessment examines support for the learner as well as the learner's progress, to aid contributions during the endeavor. Feedback comes from the outcome of learners' efforts and others' response to the efforts as productive contributions.

**Format:** Poster in a Structured Poster Session (077)

# Blogs, Vlogs, Flogs: new ways of organizing work revealed by the cultural-historical activity? (072)

Patrícia Romagnani *(Positivo University)*, Yara Lucia Mazziotti Bulgacov *(Positivo University)* & Miriam Aparecida Graciano de Souza Pan *(Universidade Federal do Paraná)*

The research takes the contributions of Vygotsky and Leontiev as mediation and the relationship of the historical subject located in the activity with the production of its existence in congruence with the historical materialist dialectics matrix. Technological innovation is a decisive influence in the transformation of the ways to relate, communicate, work, organize and learn integrated social uses. Especially with regard to changes in the working world as new technologies and new ways of organizing work afforded by the Internet in blogs formats, vlogs and flogs. The ownership of different media becomes a world belonging to the condition in close relationship with the current historical moment culture. Blogs and social networks have occupied a privileged place in cyberbusiness integrating the principles of interconnection, the creation of virtual communities and collective intelligence. The theory of cultural-historical activity is a powerful investigative tool that can provide keys to understanding and critique of the productive forces and contemporary means of production. Therefore, initially, and content analysis categories are chosen to provide insights into the investigative journey as mediation, activity, awareness, contradiction, alienation, labor, consumption society, historical materialism and cultural industry. However, it is noteworthy that the research is in its preliminary phase in data for the profile of Brazilian bloggers, selecting a specific universe of content, for example, fashion blogs, and then establish the appropriate research tools that will allow building praxis on observation, interpretation, analysis and reconstruction of understanding of the role of new technologies and new forms of work organization.

**Format:** Poster in a Poster Session

# Co-design approach to computational thinking (070)

Margarida Romero *(CRIRES (UL) / Laboratoire d'Innovation et Numérique pour l'Education (UNS))* & Lucie DeBlois *(Crires Université Laval)*

Learning by collaborative design engages learners in a situated, active and cyclical knowledge building process (Voogt et al., 2015). When collaborative design engages the learners in programming, we can observe some of the components of computational thinking (CT), a concept including a set of cognitive and metacognitive strategies related to problem finding, problem framing, code literacy and creative programming. In this paper, we analyse learning by collaborative design activities which engage learners in co-designing programs using the visual programming tool Scratch. We discuss the CT components under the lens of the co-design approach and highlights the links between CT and creative problem-solving skills.

**Format:** Paper presented in a Working Group Roundtable

# Coming to act with tables in engineering: Mapping the ontogenesis of social action across time, space, and representational media

Kevin Roozen *(University of Central Florida)*

Roozen argues that re-use and semiotic remediation across engagements plays a central role in the development of social action. Informed by theoretical perspectives that emphasize the historical trajectories of practices across heterogeneous times, places, and representational media (Hutchins, 1995; Scollon, 2001, 2008; Prior, 1998; Prior & Hengst, 2010; Wertsch, 1991, 1998), he presents a case study of one undergraduate engineering major, Alexandra, that includes three years of semi-structured and text-based interviews, ethnographic observations, and a collection of texts and artifacts that reach back to her early childhood. His analysis argues that Alexandra's ability to act with tables, charts, and other inscriptions in ways valued by engineers is mediated by her use of tables for a number of other engagements, including playing video games, creating schedules for daily activities, inventing and arranging fan novels, and solving puzzles. In addition to illuminating the laminated assemblage (Prior & Schaffner, 2011) of engagements that come to shape the participant's use of tables as an engineer in the making, the analysis also makes visible the crucial role laminated trajectories of humantool withs play in the ongoing production of practices and identities.

**Format:** Paper presented in a Symposium (292)

# School readiness in children with language delay: what is the influence of speech-language pathology services before kindergarten (440)

Élody Ross-Lévesque  *(Université Laval),* Chantal Desmarais  *(Université Laval)*, & Emmanuelle Careau  *(Université Laval)*

*Background. Vygotsky proposes that language development takes place in the context of interactions in adult-child dyads with adults providing experiences which are in their zone proximal of development that supports children to attain developmental steps in an attainable fashion. This perspective is central to the speech-language pathology intervention offered to young children with language delays or impairments and their family. This project thus focusses on language as a key determinant of early development and school readiness in children with language delay or impairment.  To overcome these developmental difficulties, the implementation of early intervention including the expertise of a speech language pathologist is recommended. However, the problem of access to speech-language pathology services for children aged 0 to 5 years is marked in several regions of the province of Quebec. Objectives. This study aims to optimize speech-language pathology services in order to support the preparation of kindergarten children who had language difficulties before school entry. The first objective is to measure the links between the type of services received, school readiness and language skills of kindergarten children who experienced language difficulties before school entry. The second objective is to identify solutions for improving speech-language pathology services in 0-5 years and support school readiness of children with language difficulties. Methods. 70 kindergarten children whose parents have requested services for language difficulties before entering school will be recruited and divided into two groups according to the intensity of the services received. School readiness and language skills will be measured through different questionnaires. Analyses. A Mann-Whitney test and factor analysis will measure the differences between the groups and the effect of each variable in the model. Conclusion. The nature of the link between language development and school readiness will support recommendations for better services for children with language difficulties.*

**Format:** Paper presentation on PhD Day

## Towards a more sustainable way to teach design students creative monitoring (364)

Magali Roumy Akue *(ENS Cachan Paris Saclay)*

Design teachers face the challenge of teaching students creative watch in fast-growing and changing context. This difficulty is an opportunity to explore horizontal work methods, that integrate Information Technology and are sufficiently structuring to organize and sustain the creative watch among different actors. The purpose of this paper is to present the experimentation of a community of practice of design teachers and students who have taken up this problem.

**Format:** Poster presentation on PhD Day

# Conceptualizing teacher knowledge as mediating tools (297)

Pooneh Sabouri *(New York University)*

Despite many research studies, the questions of what teachers need to know, how they should learn it and what it means to "be qualified" for teaching science still do not have clear answers. One of the dominant models among science teacher preparation is Shulman's model with its two main components, science content knowledge and pedagogical content knowledge. Currently, in many teacher preparation programs, the pedagogical content knowledge often is presented as a finished product where teachers in training come to adopt this knowledge and apply it in their practice. Teachers neither see themselves contributing to this knowledge nor transforming the current ones. Moreover, there is a little or no attention to students' motives and goals as foundation of pedagogical content knowledge. The aim of this study is to develop an alternative model of knowledge for teaching science that (1) claims knowledge is a tool that teachers can use, modify or transform during their teaching practice, and (2) place students' needs, motives and prior knowledge at the heart of teachers' practice including design and implementation of curriculum. This paper is part of a doctoral dissertation that is taking place within a pedagogy course in a graduate teacher education program. The course has been designed around a new learning process called transformative reflection and Change Lab methodology. The guiding question for this study is: what tools (or ideas) teachers create to guide their teaching and future teacher development as a function of their work in the course?

**Format:** Paper presented in a Paper Session

# The relationship of a workplace with its computer tools as psychological phenomenon: a case study in the automotive industry (278)

Dominique Salaün *(Centre de Recherche sur le Travail et de Développement (CRTD) - CNAM Paris)* & Katia Kostulski *(Centre de Recherche sur le Travail et le Développement, CNAM Paris. (Paris, France))*

How is the activity of a workplace affected by the computer tools? Beyond their technical impacts, our hypothesis is that the latter are part of the profession's language processes. We are proposing a case study in the automotive industry. A group of professionals complains of too complex curves produced by an information system. However, they are the ones who prescribed the calculation. They express the need for a simple calculation but they build it complex for it to be "realistic" - which leads them to make it complicated. The analysis of this paradox leads us to discuss the instrumental approach developed from the work of Vygotsky, by Pierre Rabardel. We come back on the unification suggested by Rabardel, between technical and psychological instrument in his theory of instrumental genesis. According to us, this proposal is likely to hide the nature of the problem of our paradox. Paraphrasing the views of Vygotsky on the relationship between thought and language, the problem is how to think the relation between thought and psychological instrument and consider both processes as two independent processes of which the external meeting is a source of instrumental activity. We resume the view of Vygotsky that differentiates technical and psychological instrument. We show in this example that the IT tools affect the activity of the professional environment by links we could describe as internal to the instrumental act. The nature of these links is in our view what fundamentally separates technical phenomenon and psychological phenomenon.

**Format:** Poster presentation on PhD Day

# Using organization of action to support understanding of collective object of activity (291)

Asmalina Saleh *(Indiana University)*

An oft cited problem in using Cultural-Theoretical Activity Theory (CHAT, Engeström, 2001) as a theoretical framework is how participants orient themselves towards the collective object of activity, especially since the object shifts subtly over time (Cole & Engeström, 1993). Understanding the collective object or motive of activity is critical for researchers interested in learning because the object plays a vital role in mediating student learning performances, especially in the context of a digital collaborative environment. This study takes on a methodological approach to address how researchers might attend to the collective object of activity. It utilizes the Science through Technologically Enhanced Play (STEP) environment (Authors, 2015), an embodied augmented-reality system which employs motion-tracking technology to engage early elementary students in dramatic play and reflection of science content. In this qualitative analysis, I draw on an embodied CHAT framework (Authors, 2016) and conversational analysis (Goodwin, 2013; Schegloff, 2007) to articulate how we might examine the coordination of action in order to understand how these actions might suggest what the object in question is. First, I will briefly provide an overview of an embodied CHAT framework, which draws on the strengths of theories of grounded cognition (Barsalou, 2003; Goldin-Meadow, 2011) and CHAT. With this embodied framework in mind, I then focus on how adjacency pairs (Schegloff, 2007) and the subsequent lamination of organized action (Goodwin, 2013) highlight the nature of different communicative actions, be it verbal or non-verbal and how it subsequently shapes the collective object in a digital learning environment.

**Format:** Paper presented in a Working Group Roundtable

## Autobiographical memory and place identity: Functions, phenomenology, and relevance to environmental values (267)

Albina Salikhova *(Lomonosov Moscow State University (Moscow, Russia))* & Tomoaki Itaya *(University of Tokyo (Tokyo, Japan)*

The Japanese concept of genfukei (original scape), which has no exact counterpart in other languages, is the memory image of a place closely linked to identity. A Russian-speaking sample of 83 adults revealed typical Russian genfukei places. Memories that support personal and social identity differ in their phenomenology, functions and interconnections. Phenomenological and functional features of genfukei are linked with environmental attitudes. The connections between phenomenological and functional characteristics of memories, specific to different types of genfukei and ecological values, form a bridge to understanding the interconnection between environmental attitudes and characteristics of memory images that support place identity.

**Format:** Poster

# Autobiographical memories as a tool of place identity: functions, phenomenology, and relevance to environmental values (363)

Albina Salikhova *(Lomonosov Moscow State University (Moscow, Russia))* & Tomoaki Itaya *(University of Tokyo (Tokyo, Japan))*

The Japanese concept of genfukei (original scape), which has no exact counterpart in other languages, is the memory image of a place closely linked to identity. We regard the genfukei memories as a tool for creating and maintaining place identity and ecological values. A Russian-speaking sample of 83 adults revealed typical Russian genfukei places: home, "dacha", secret and secluded places, vacation spots, public city centers, commonplace, but personally important buildings, parks, Red Square, Russian forests and fields, national natural monuments, roads / railway stations / airports, architectural and cultural attractions. Memories that support personal and social place identity differ in their phenomenology, functions and their interconnections. Several phenomenological characteristics of memories related to the strength of the realization of all autobiographical memory functions. At the same time, specific configurations of interconnections between the functions and phenomenology of memories can be clearly traced for different types of genfukei. Phenomenological and functional features of genfukei are linked with environmental attitudes and values. Present here are also common to all types of genfukei memories interconnections. However, the vast majority constitute relationships that are specific to each kind of genfukei and each ecological attitude scale. These form a unique profile of the interconnection of man's relation to nature with the features of his/her genfukei memories. The connections between phenomenological and functional characteristics of memories, specific to different types of genfukei and ecological attitude scales, form a bridge to understanding the interconnection between environmental attitudes and characteristics of memory images that support place identity.

**Format:** Paper presentation on PhD Day

# About the participants' transformation in the implementation and adaptation of a 5D model in a Colombian rural school (228)

José Eduardo Sánchez *(ICESI)* & María Cristina Tenorio *(Universidad del Valle)*

While implementing and adapting the 5D model in a rural school of Colombia, we found that teachers tend to have a much more effective transformation of their educational conceptions and teaching practices when university students model the pedagogical strategies (5D) in the classroom with the children.

Nimier (2014) says, "despite their goodwill, teachers can only reproduce what they have learned to do". Therefore, the introduction of new technologies in the classroom does not implicate the transformation of teachers' relationship with it. The use and meaning of ICT in the classroom can only be interpreted by teachers´ cultural background and personal training, in terms of Nimier. Hence, the lack of new technologies in the classroom does not relate to teachers' pedagogical purposes or their teaching practices.

The 5D model allows the incorporation of ICT into the educational process, not expecting that their uses – sometimes misdirected - will generate educational changes. However, the modeling implemented by university students has brought the transformation of teachers' role. Turning this activity as an educational experience not only for the children but for all the significant adults involved in the process. Our statement is that the educational concepts supporting the 5D model, including the flexibility that promotes the exchange of roles, enables a profound transformation in all participants´ practices and ideas. In this particular experience, the role that participants set for new technologies is correlative to the actions carried out on it. Furthermore, they found as mediators for transforming their roles within the educational field.

**Format:** Paper presented in a Working Group Roundtable

# Relational agency, double stimulation and the object of activity: an intervention study in a primary school

Annalisa Sannino *(University of Helsinki)* & Yrjö Engeström *(University of Helsinki)*

With the help of an empirical example from a formative intervention in an elementary school, this presentation employs the theoretical construct of relational agency in connection with the two activity-theoretical concepts of double stimulation and the object of activity. The analysis points at relationality as a key component sustaining the creation of mediating artifacts and the redefinition of the object of activity. Double stimulation was not limited to the use of any single mediating artifact; rather, it consisted of a rapidly emerging texture of practical demonstrations of possibility. These demonstrations of possibility were above all facilitated by a dense flow of relational actions of support, encouragement, help and advice between all participants in the intervention. With this fluid relational infrastructure, double stimulation became a spatially distributed and temporally continuous process. The relational agency mobilized with the help of the intervention led all parties to discover and experiment with novel aspects of the object of their activity and opened up new perspectives on the potentials of the learning and teaching of an entire class.

**Format:** Paper presented in a Symposium (029)

# Makerspace practices at high school level: STEAM driven experiences in Canadian and Mexican curricula

Jorge Sanabria-Zepeda *(SUV - Universidad de Guadalajara)* & Sylvie Barma *(Université Laval)*

Competency-based initiatives such as the ProfilTIC framework in Quebec, and the Mexican educational reforms of 2008, promote that high schools may focus their curriculum on the development of competencies such as collaboration, creativity or critical thinking, including a number closely related to innovation. However, there is virtually no data or precedent to aid us in assessing the potential value and impact of 21st-century makerspace practices with respect to the pursuit of the innovative competencies described in these initiatives, without which any assessment of the competencies' probable success must remain tentative. It is important, then, to characterize the learning process of students in such practices, to aid teachers and facilitators in the creation of projects that foster these innovative competencies, such as the STEAM (Science, Technology, Engineering, Arts and Mathematics) approach. This document addresses this need, through the documentation and analysis of the creative processes involved in high school level makerspace practices, to identify successful implementations from a technological and educational perspective in both Canadian and Mexican systems. Ultimately, the study aims at characterizing the findings and designing innovative pedagogical processes and learning methods to achieve development of the innovative competencies mandated by the ProfilTIC framework and the 2008 reforms.

**Format:** Paper presented in a Symposium (175)

# How can we develop Assessment Cultures in schools? Findings from a nationwide research project in Norway called Research on individual assessment in schools (075)

Lise Vikan Sandvik *(Norwegian University of Science and Technology)*

This article reports on findings from a nationwide research project in Norway called Research on individual assessment in schools (Forskning på Individuell Vurdering i Skolen – FIVIS, 2011-2014). The project was initiated and financed by the Norwegian Directorate for Education and Training. The purpose of the project has been to provide a picture of how assessment practices in the Norwegian school develop in an interaction between centrally set policies and theories and local interpretations and understandings. Assessment practices are constructed in a complex interplay between governmental intentions and local understandings and interpretations in the schools. We have followed the phenomenon of assessment in schools from central intentions to local understandings and local practice. This article seeks to answer the question:

What impedes and what promotes the development of assessment cultures in schools?

Cultural history activity theory is used to understand and discuss the findings in the study. For this reason, the theory is explained as a tool for understanding what may impede and promote the development of assessment cultures before the article explores and discusses different aspects of the development of assessment cultures. Moreover, the article will examine how the development of assessment cultures is a collective concern for the school as an organisation, where particular emphasis is placed on the importance of subject content knowledge and assessment literacy among the teachers to establish a common understanding of assessment as a contribution to the teachers' professionalism as teachers in different subject areas.

**Format:** Paper presented in a Paper Session

# Learning and development during teaching activity co-analysis under the scope of the concept of zone of proximal development: a critical analysis

Frédéric Saussez *(Université de Sherbrooke)*

In the field of research on teacher education in the French-speaking countries, the ergonomic analysis of teacher's activity has helped develop a new look on the learning to teach process grounded in the analysis of concrete material teaching activity (Durand, 2009; Saussez and Yvon, 2014). This contribution aims to conceptualize the process of learning and development at work when a person is involved in the analysis of his own teaching activity. Using the analytical category of the zone of proximal development (Vygotsky, 1933, 1934), this contribution explores the relationship between learning new ways of conceptualizing his own activity and the possible development of new capacities to act on, to think about, to feel, to assess and to monitor his own activity. The thesis is that development requires, in this case, a structured transmission process of new cultural forms of systematization of the relationship to teaching activity. Two research programs claiming in one way or another the legacy of the cultural-historical psychology are discussed. The first one is based on the ostensive transmission of rules for teaching (Bertone & Chalies, 2007, see also Bertone, Chalies, & Clot, 2009). The second one is based on the methodology of cross self-confrontation as experimented in the clinic of activity (Felix & Saujat, 2007; Saujat & Felix, 2015). Based on the critical analysis of the data generated by these two programs, the author will demonstrate that the first program makes learning and development coincide and the second program confuses these two processes.

**Format:** Paper presented in a Symposium (087)

# Overcoming 'egocentrism' through private speech: Creative coordination of perspectives in children's self-dialogue

Jeremy Sawyer *(The Graduate Center, City University of New York (CUNY))*

Vygotsky (1934/1987) famously critiqued Piaget's interpretation of the supposedly asocial and useless nature of children's "egocentric speech" (now known as *private speech*). Decades after Vygotsky's death, Piaget (1962) made the stunning admission that Vygotsky was entirely correct about the social origins and functional usefulness of such self-addressed speech. He further conceded that social speech becomes progressively internalized, passing through a period of egocentric (private) speech on its way to becoming silent, inner speech. At the same time, however, Piaget claimed that Vygotsky failed to appreciate the developmental importance of overcoming egocentrism, which Piaget conceptualized as difficulty in differentiating and coordinating cognitive and social perspectives. Piaget further argued that Vygotsky's proposals about private speech have little relevance to his notion of egocentrism as an inability to shift mental perspectives common in young children. While it is true that Vygotsky did not address egocentrism on these terms, recent neo-Vygotskian work suggests that private speech (and the internalization of speech more broadly) may play an important role in children's development of social understanding. While Piaget essentially precluded the possibility of shifting perspectives in egocentric/private speech, I argue that, rather than indicating children's egocentrism, the development of private speech actually contributes to the process of *overcoming* egocentrism. That is, as part of a process of speech internalization, private speech allows children to differentiate and integrate the multiplicity of social and cognitive perspectives encountered in semiotically-mediated activity. While often implicit in his work, I contend that a dialogical view of semiotic activity undergirds Vygotsky's work on the internalization of language and that a child "begins to converse with himself exactly as he had earlier conversed with others" (Vygotsky, 1934/1987). Based on my research with preschool children, I present evidence of embryonic forms of perspective-taking in private speech, including dialogic and playful forms of speech that preschoolers addressed to themselves while engaging in activity. I propose that playful private speech during sociodramatic play (the leading activity for preschoolers) may play a pivotal role in this regard, as it enacts the multiple perspectives and rich dialogical dynamics of semiotically-mediated play activity.

**Format:** Paper presented in a Symposium (079)

# The magic of signs: Creative coordination of transformative activity (079)

Chair: Jeremy Sawyer *(The Graduate Center, CUNY)*

Jeremy Sawyer *(The Graduate Center, CUNY)*, Anna Stetsenko *(The Graduate Center, City University of New York (CUNY) (New York, NY, United States))*, Peter Jones *(Sheffield Hallam University)*, James Lantolf *(The Pennsylvania State University)* & Igor M. Arievitch *(College of Staten Island, The City University of New York, USA)*

Signs seem to have an almost magical power to enhance and transform human psychological abilities, as even mainstream psychology is now discovering. But from what source does this quasi-mystical power derive? Vygotsky's pioneering account of signs as "psychological tools" attempted to place the development of semiotic mediation within the dynamic development of human activities. Through his investigation of egocentric/private speech, Vygotsky developed a bold hypothesis about the relationship between language and cognitive development, self-regulation, and consciousness itself. Yet, despite these revolutionary advances, problems remain in cultural-historical accounts of semiotic mediation and the development of sign-making capacities in early childhood, leaving open the door to dualist accounts of natural/cultural lines of development, and corresponding lower/higher mental functions. Neo-Vygotskian accounts of internalization based solely on word meaning may be too narrow to fully understand the role of individual (and 'inner') communicative creativity within collective social practice. Furthermore, CHAT's general theory of language has been criticized for orthodox assumptions that downplay spontaneous sign-making in the coordination of collaborative activity. To address these lacunae, this symposium demystifies the magic of signs by situating them within the creative coordination of transformative activity. A key reference point for the four papers in this symposium will be Anna Stetsenko's 'transformative activist stance' – an ongoing effort to overcome ontological dualism in cultural-historical activity theory. Each paper contributes to mapping the contours and dynamics of the semiotic activity which is inherent to the whole of culture, locating the power of signs in practical activity and its transformational potential.

**Format:** Symposium

# Coworking space organizations: hybrid activities between multivocal objects and sharing thicknesses

Giuseppe Scaratti *(Università Cattolica, Milano),* Silvia Ivaldi *(Università Cattolica, Milano)*

The second paper – "Coworking space organizations: hybrid activities between multivocal objects and sharing thicknesses" – from Scaratti Guiseppe and Ivaldi Sylvia analyses another facet of coworking phenomenon and the rise of coworking space organizations: the multivocal and multidirectional processes, flexibility, horizontal relationships between the players inside and outside the organizations. Guiseppe and Sylvia identify different ideal typologies of coworking space organizations, which are characterized by plural configurations of sharing practices that involve the community inside and outside the spaces based on different relational processes and different outcomes for individuals or the wider community. Guiseppe and Sylvia argue that firstly, a combination of these aspects enables them to identify different levels of 'shared thickness' by formulating a unit of analysis to grasp the complexity of simultaneous, multidirectional and reciprocal processes and that goes beyond the concept of 'project collaboration' and 'project teams'. Secondly, the concept of 'shared thickness' offers interesting perspectives for the analysis of the contradictions of hybrid typologies of organizations that are the result of new forms of production and work.

**Format:** Paper presented in a Symposium (219)

# Where Vygotsky and Rogers meet (413)

Fedor Shankov *(Psychologica Institute of Russian Academy of Education)*

Vygotsky's primary methodological message (and challenge) to the contemporary psychology was that its keystone must be the "philosophy of practice" ("psychotechnics"). Cultural-activity psychology has been sufficiently realized in education, medicine, etc., but not in what seems to be the only particularly psychological practice — counseling and psychotherapy.

The founder of counseling psychology was Carl Rogers. In 1986 he paid a visit to Vygotsky's dear home — Psychological Institute of RAE in Moscow. This symbolical meeting arose into a psychotechnical system of Co-experiencing psychotherapy. What do Vygotsky and Rogers share? They both hold experiencing as a central and integral category. F. Vasilyuk developed a concept of experiencing which became a two-way linkage between Vygotsky's theory and Rogers's practice.

For academic psychology, Co-experiencing psychotherapy brought 1) a model of an "integral unit of psychological analysis"; 2) a theoretical understanding of experiencing as a productive internal meaning-generating activity; 3) the conceptual models of levels, registers and structures of consciousness. To the psychological practice it brought 1) a methodologically based description of psychotherapy as a particular anthropological practice; 2) a system of "psychotechnical units" in psychotherapeutic activity; 3) a structural analysis of the psychotherapeutic situation. These and other concepts are useful not only for guidance in psychotherapeutic practice, but for enriching the psychological theory, using psychotherapy not as a subject, but as a method of research (Molostova, Zareckiy, & Vasilyuk).

Hence Co-experiencing psychotherapy suggests one of the convenient solutions for overcoming the contemporary crisis in psychology, a split between academic psychology and psychological practice.

**Format:** Paper presented in an Interactive Paper Session

# Acting with animals: Tracing human-animal withs in a clinical setting

Martha Sherrill *(University of Illinois at Urbana-Champaign),* Julie Hengst *(University of Illinois)*

Sherrill and Hengst report ethnographic research on communicative practices in clinical settings involving Animal Assisted Therapy (AAT). In theorizing face-to-face interactions, Goffman (1971) identified both human and animal withs, but did not point to cross-species withs (e.g., a shepherd and sheep dog herding a flock of sheep). AAT sessions are designed as clinical gatherings with and around animals. These interactions routinely involve the target patient, licensed clinicians, the therapy animal and her human handler, and frequently guests or bystanders. Their study focuses on an inpatient rehabilitation unit at the Rush Copley Medical Center in Illinois. The 34 participants in this study included patients, family members, rehabilitation specialists, and specially trained therapy dog/handler teams. Data collection involved video recorded observations of 9 AAT sessions, 16 individual interviews, and full access to patient medical records. The analysis presented here traces the sociohistoric withs that inform interactions with the therapy dog ("Sully"). Using situated discourse analysis and the analytic framework laid out the first paper, they identify and analyze moments of dense interaction with Sully, tracing the continuities within and across sessions as well as how these moments are informed by personal and cultural histories of human-dog withs. Specifically, they first outline the range of Sully-people alignments seen in immediate strips of discourse, including data from the animal's point of view (e.g., intimate and confidential moments that are only visible because a camera was attached to Sully's harness). Second, focusing on the case of one patient, Casimir (a 79-year-old man), they trace this emerging dog-human within interactions between and across sessions, as Casimir reflected on, anticipated, and pushed for his right to see Sully. Finally, we analyze culturally recognized human-dog relationships through the dog stories shared during these AAT sessions and public sources documenting the long history of human-dog relationships.

**Format:** Paper presented in a Symposium (292)

# Narrative poetics and Vygotsky's theory of emotions: To elucidate a scenography of a "narrative learning environment" (201)

Yoshinobu Shoi *(Hokkaido University of Education)*

Much of the work in psychology and pedagogy that has been directly or indirectly influenced by Vygotsky's theories has been presented within a cognition-based framework. The late 1990s, however, saw the rise of a new research movement, primarily interested in Vygotsky's theory of emotions (змоция), a latent theme in his original texts.

Veer Valsiner (1991) have examined the historical position of the theory of emotions within the totality of Vygotskian theory, while researchers such as Jantzen (1999), Robbins (2001), and Derry (2004) have rethought the significance of Vygotsky's theory of emotions to theories of development (pedagogy), and have considered its affinity to the work of Spinoza. In relation to theatrical self-expression (performance), Newman and Holzman (1993) redefined the emotional topology of Vygotsky's zone of proximal development (ZPD) as an "emotional ZPD." Furthermore, Hakkarainen (1999), Bredikyte (2001), and Veresov (Veresov & Hakkarainen, 2001), in a project organized at the University of Oulu in Finland, have turned their attention to an opportunity for ZPD-making, using a narrative environmental configuration to assist the transition from play to learning.

The aim of this presentation is to reconsider the historical process of the formation of the theory of emotions, to reappraise from a pedagogical perspective, and to shed light on the scenography of a "narrative learning environment" (Hakkarainen & Bredikyte), as a pedagogical moment embedded in the theoretical discussions that it has generated.

**Format:** Paper presented in a Paper Session

# The development of cultural-historical paradigm in Russian scientific periodical publications: 10-year results (422)

Anna Shvedovskaya *(Moscow State University of Psychology and Education (MSUPE))*

The article presents the analysis of the development of the ideas of L.S. Vygotsky's school using the example of the publications in the international scientific journal Cultural-Historical Psychology (for the period 2005 through 2016). Over the period from 2005 to the end of 2016, 595 articles of 524 authors from 32 countries have been published in the journal Cultural-Historical Psychology. The study of the subjects of the articles published in the journal was held within the framework of the following criteria: scientometric publication indicators; group of authors; themes of the publications; relevance of the articles for their readers. The research uses the following sources: Russian Science Citation Index (RSCI); repository data of the psychological editions of PsyJournals.ru; report data on the activities of the journal Cultural-Historical Psychology. The selected topics review the basic content of the publications presented in the research 12 thematic units allocated in empirical studies: Speech and thinking (17%); Socialization, communication, attitude (14%); Education (9%); Perception (6%); Memory (6%); Special and neuropsychology (9%); Personality, motivation, emotions (11%); Ethnocultural research (3%); Family (9%); Religious identity (4%); Types of activities, interests (8%); Art, creativity (4%). The most developed areas are the studies of speech and thinking, personality, and communication.

**Format:** Paper presented in a Paper Session

# Children's conceptual learning in imaginative play across educational settings: A cultural historical analysis of science learning (099)

Chair: Shukla Sikder *(Charles Sturt University)*

Discussant: Chris Siry *(Université du Luxembourg)*

Shukla Sikder *(Charles Sturt University)*, Yijun Hao *(Monash University)*, Judith Gomes *(Monash University)*, Anamika Devi *(Monash University)* & Chris Siry *(Université du Luxembourg)*

In the last three decades, play has been identified as a key research area in relation to children's learning and development. However, understanding how children's conceptual learning (for example mathematics, science) develops through imaginative play in different educational settings, is less well understood. This symposium presents findings from four empirical studies investigating children's play in contexts of diversity (Bangladesh, India, Australia and China). What is common, is that each researcher is seeking to understand how play-based learning takes place in the everyday lives of children in different settings, where science learning is featured. All the studies draw upon cultural-historical theory to frame and gather digital data.

In this symposium, the first three papers will use Vygotsky's notions of "everyday and scientific concepts", "imagination and creativity", and "perezhivanie" to discuss how children's everyday life experiences in different educational settings are linked with their scientific concept development. The fourth paper will use Kravtsov and Kravtsova's (2010) conception of "subject positioning" and Vygotsky's concept of "social situation of development" to discuss how parents' diverse cultural practices influence their pedagogical role in imaginative play to support preschoolers' conceptual learning. Together, the empirical studies in this symposium elucidate Vygotsky's notion of play in diverse cultural context. They reflect the power of cultural-historical theory as a research lens to view 360° dimensions of children's everyday life in different settings, with important implications for enlightened approaches to early childhood pedagogy.

**Format:** Symposium

# Small science learning at infants-toddlers age: Conscious communication between parents and children through small science moment as part of family culture

Shukla Sikder *(Charles Sturt University)*

Children's learning begins from birth and occurs as part of family cultural practices (Vygotsky, 1987). Göncü & Gauvain (2012) argued that children's learning and development occur in historically situated activities where the activities are mediated through intersubjective experiences of children's culture in which they take part with other people in their communities. Vygotsky (1987) also argued that everyday concepts support children to develop scientific concepts in everyday settings. However, the research focus has not yet examined how infants-toddlers everyday learning supports children to develop scientific understandings as part of their everyday family culture. This study investigated how the family culture shapes infants-toddlers' learning of small science concepts in everyday contexts. In this paper, a whole range of family practices (about 12 hours of video data) of one Bangladeshi child's (30-36 months) everyday life has been gathered and analysed. The dialectical relation between small science and everyday activities (Sikder and Fleer, 2015) has been used as an analytical framework. The concept 'Intersubjective experiences' (Göncü & Gauvain, 2012) is also used as an analytical tool to understand the child's scientific learning in family culture. It is argued that conscious communication between parents and children through small science moments could influence the dialectical relations between everyday concepts and scientific concepts. The findings indicate that the established family culture could support infants-toddlers for shaping their understanding of small science concepts, such as, push/pull/roll/spin as part of the scientific concept of Force, life cycle of a butterfly as part of understanding insect's life cycle, where shared understandings and conscious communication between parents and children are observed.

**Format:** Paper presented in a Symposium (099)

# Everyday life as a resource for learning in classroom interactions: Contextualizing instruction in mathematics and social studies (171)

Kenneth Silseth *(University College of Southeast Norway)* & Ola Erstad *(University of Oslo)*

This paper aims to categorize and analyze teachers' use of students' everyday experiences and knowledge as resources for learning when engaging in so-called contextualized instruction. While the existing body of research shows the potentiality of contextualizing instruction, it also points to a need for more knowledge about what types of resources arise from students' everyday knowledge and experiences that teachers can mobilize for contextualizing instruction in classroom interactions. Toward that end, we address the following research question: What kind of cultural resources do teachers use for contextualizing instruction? In this case study, data consists of videotaped student-teacher interactions (43 lessons) during one academic year in mathematics, and social science classrooms at lower secondary levels were analyzed. Four different categories of cultural resources are identified and described. The first category was developed from episodes in which the teachers referred to places that were important to the students when dealing with an academic matter. The second category was developed from episodes in which the teachers referred to different types of activities that the students participated in. The third category was developed from episodes in which the teachers used familiar objects as resources for supporting the students' meaning making and learning. The final category was constructed from episodes in which the teachers mobilized the students' feelings and personal relations. Variations in the types of resources that are being used are demonstrated, and implications for student learning are discussed.

**Format:** Paper presented in a Paper Session

# Expanding coteaching as agency emergence: practices in science teacher education context (197)

Glauco Silva *(CEFET/RJ-Campus Petropolis)* & Cristiano Mattos *(University of São Paulo)*

The concept of coteaching is generally known as the practice of two or more teachers sharing a teaching activity in the same classroom. In this case, collaboration among them is mandatory to achieve the educational goals. Nevertheless, in this work, we aim to expand the concept of coteaching proposing an expanded coteaching as a triad intern-teacher-student's collaboration and coordination of actions rather than the dyad intern-teachers. In the context of the practicum, the expanded coteaching is evident when pre-services teachers' initiation takes place throughout supervised teaching practices at High Schools. We developed this research in the context of a Physics Teacher Education Program, in a physics teaching course designed to pre-service teachers' practice at High Schools. This is a qualitative-based research grounded on the Cultural Historical Activity Theory perspective whose subjects are the High School supervisor teacher, the intern, and the students. The methodology consists in videotaping the intern's practicum at high school classes in order to analyze the discursive interactions among the subject (triad) of the teaching-learning activity. The triad is the subject of the teaching-learning activity – the expanded coteaching. The expanded coteaching activity brings up a new labor distribution, when the intern teaching agency emerges, changing his position from a university student to a teacher in the classroom. The new division of labor mediates the school community and the object of the educational activity as well new rules emerge mediating subjects and school community when an emergent teacher comes up from his interactions with supervisor and students.

**Format:** Paper presented in a Working Group Roundtable

# Emotional 'perezhivanie' of play experienced by adults playing with young childen (284)

Monika Skeryte-Kazlauskiene *(Lithuanian University of Educational Sciences)*, Agne Brandisauskiene *(Lithuanian University of Educational Sciences)* & Milda Bredikyte *(Lithuanian University of Educational Sciences)*

How important is the content of emotional experiences - 'perezhivanie' of an adult for the construction of joint play? Our previous research on adult experiences of participating in play with young children revealed that establishing a contact and building a relationship with a child is a process, which takes time. It is often connected with the feelings of uncertainty, anxiety and tension and it requires sensitivity and emotional involvement. Our observations in play research lab revealed that if adult could turn his 'perezhivanie' from own feelings towards the 'soperezhivanie' of joint play events, the contact is build more easily. Based on that we claim that adult should be aware of the content of own emotional experiences and consciously direct one's 'perezhivanie' to meet 'perezhivanie' of the child participating in joint play and 'turn' both 'perezhivnie' towards the play events. Research data is collected at The Research Laboratory of Play at Lithuanian University of Educational Sciences in Vilnius during one semester. Visual data and written narratives from adults revealing their 'perezhivanie' of joint play events will be analyzed. Successful episodes of 'soperezhivanie' bringing to a joint play activity will be analyzed in detail. We suppose that 'soperezhivanie' of play events helps to construct joint play activity and eliminates feelings of insecurity and certain tension for both the child and the adult.

**Format:** Paper presented in a Symposium

# Children's explorations in conflicts in play - a question about inclusion and exclusion processes (069)

Ruth Ingrid Skoglund *(Western Norway University of Applied Science)*

Conflicts in children's play are usual events in kindergartens. Conflicts occur when people have different motives or aims for their acts and usually involve disagreements, resistance and protests. In research about children and conflicts, focus often is on how they learn to negotiate and develop their social competence. The aim of this presentation is to investigate how conflicts can be understood as children's exploring of inclusion and exclusion processes. The question is: 'In what ways are children's negotiations in conflicts in play an exploring of including and excluding processes?'

Cultural-historical perspectives give possibilities to look at conflicts in play at different plans. The institutional practices constitute conditions for the children's activities and relations in play settings. Children also interpret and explore values, and demands from the institution and the society in a re-constructive way. Biesta's understanding of democracy as an ongoing process of inclusion and exclusion inside the group is relevant.

The data is a qualitative research from four kindergartens. Written narratives from staff, the researcher's observations and interview with staff about children's conflicts in play, are analyzed. The analysis reveals that negotiations vary for involved children in different conflicts and contribute to various experiences with power, roles and positions. Conflicts also cause intern excluding processes, where some children over time seem to lose possibilities to negotiate in an equal way. Free play is an important value, and there is an institutional claim to let children learn to resolve conflicts themselves. Thus staff is in danger for not detecting what is really going on in conflicts in play.

**Format:** Paper presented in a Paper Session

# Play and toy in the frame of cultural-historical psychology (411)

Elena Smirnova *(University of Psychology and Education, Moscow, Russia)*

Vygotsky is the founder of the theory of play as leading activity in preschool age. According to his theory, the main sense of child play is the divergence between the real and imaginary situations. The imaginary situation is the main specific property of pretend play, distinguishing it from any other activities. The imaginary situation exists in the child's practical play actions rather than in his/her imagination. It is a simultaneous holding to both real and illusory situation.

Two crucial processes centering on the play and toy take place simultaneously. On the one hand, the child expresses him/herself – his/her knowledge, emotions and events of life and enacts imagined images.

On the other hand, when playing, the child masters the world of human relations and ideas, in which he lives. Toys are the special psychological tools for a child's education. A 'dialogue' with a toy is an important phase of the development of inner dialogue, which will subsequently transform into inner speech, a chief means of human thought and consciousness.

However, the toy becomes a psychological tool only if it is open for own actions, images and emotions of a child. Toys should make it possible for children to impart their own activity – their voices and movements - to it.

Unfortunately, the majority modern tech toys are closed for kid's activity.

So the task to evaluate the developmental qualities of concrete toys arise. The psychological examination of toys is realized in Play & Toys centre of MUSUPE.

**Format:** Paper presented in a Paper Session

# Pedagogical conditions for 'play exploration' in kindergarten

Ruth Ingrid Skoglund *(Western Norway University of Applied Science)* & Elin Eriksen Ødegaard *(Western Norway University of Applied Science)*

Cultural-historical contexts are conditioning the way kindergartens act and organize practice institutionally and thereby constitute conditions of what activities it is possible for children to engage in, to play and to learn (Hedegaard, Fleer, Bang, & Hviid, 2008; Ødegaard, 2007). In order to unfold and understand how children explore and experience while playing and how institutions condition play activities, we will present an empirical case study. The paper suggests a conceptualization of 'play exploration' as a crucial practice for kindergarten pedagogy. Heterogeneity in families, children and staff constantly challenge ideas of pedagogical strategies. Of special interest, in developing the case, are the processes of social inclusion and exclusion; for example, children with a history of being newcomers to kindergarten. We will explore the following questions: How are social processes explored in play? Where is the play located, what kind of artifacts become central in the play? How are the teachers' practices connected to the children's play-explorations? How is the play explorations supported and restricted? What cultural inspiration do the children take up? The aim of the paper is to start a process of opening up the concept of 'exploration' connected to play within cultural-historical framework through the analysis of a case study. The empirical base for the case consists of field-notes and video-observation from a Norwegian kindergarten. The kindergarten is working with changing the practice of their work with children's families connected to the work they do with supporting, participating and giving space to children's play explorations. The researchers and staff work together in analyzing children's processes and the change of the teachers' pedagogical strategies.

**Format:** Paper presented in a symposium (038)

# Exploring perezhivanie as an internalised psychological tool for teacher thinking and activity (423)

Lada Smirnova *(The University of Manchester)*

This paper presents an ongoing research on language teachers' responses when integrating technology in Russian higher education. It discusses the state of the art in the area as a complex situation language teachers face. I argue that traditional teacher development frameworks, which proved successful in western contexts, require thorough consideration when implemented in Russia top-down. I propose an alternative, a bottom-up strategy with the ambition to contribute with knowledge on the concept of perezhivanie as a heuristic tool in complex settings such as technologically-enhanced language learning. The phenomenon of perezhivanie is highly polysemic and therefore difficult to translate from Russian into English and interpret for the Western audience. I suggest that perezhivanie has a formative power on teachers and therefore can be used in teacher education, training and development programmes.

**Format:** Paper presented in a Paper Session

# The dynamics of affectivity in teachers' talk about their work activity (214)

Ana Luiza Smolka *(Universidade Estadual de Campinas)*, Lavínia Lopes Salomão Magiolino *(Universidade Estadual de Campinas (UNICAMP))* & Daniela Dias dos Anjos *(Universidade São Francisco)*

Our recent studies highlight the role of emotions in human psyche. We attempt to investigate how they become (trans)formed by signification processes through historical and cultural dynamics. This way of conceiving emotions is inspired by Vygotsky, Bakhtin and Wallon's works, which give us support for considering the problem of historically human(izing) experience of emotions. Working at the interfaces of Psychology and Education, we have focused on some notions that are deeply intertwined in Vygotsky`s theoretical elaborations – cultural development, human psyche, perejhivanie and drama. In this paper, we bring to discussion the issue of emotions related to professional activity in a formal education setting. The empirical material concerns an extract from a recorded meeting in which teachers and researchers analyze, reassess and discuss a research project developed at the public school. Our analytical procedures focus on the participants' uttering as we intend to show how emotions and feelings can be (or cannot be) put into words and how they affect and constitute personal and professional relationships at the instance of enunciation. From the analysis of empirical material, we discuss how subjects affect and become affected by words and meanings in their inter-relationships; how sense and meaning are produced beyond the individuals' intentions; how an intricate web of multiple relational subjects' positions participate in the production of signs and meanings in work relations at school; and we discuss some (im)possibilities of transformation of affects.

**Format:** Paper presented in a Working Group Roundtable

# "I think you should explore the kinky market": How entrepreneurs develop value propositions as cocreated networked objects

Clay Spinuzzi *(University of Texas at Austin)*

The first paper from Clay Spinuzzi – "I think you should explore the kinky market": How entrepreneurs develop value propositions as cocreated networked objects" – will pursue the movement that Engeström started 25 years ago by arguing that work historically developed away from craftwork, bureaucracies, and markets toward multi-professional networks. The paper does so by focusing on open-ended, creative, multi-disciplinary teams—such as entrepreneurs pitching their technologies to potential stakeholders— where the activity network's object is hard to define. Spinuzzi will argue that since the object is the "sensemaker" (Kaptelinin 2005), the focal point that defines the activity system, an indeterminate, fragmented, or multiple object inevitably poses problems for defining a case's unit of analysis. He will explore how to pin down that unit through his examination of an empirical case of how an entrepreneur cocreates such an object, a value proposition, with an audience of stakeholders. Through this case Spinuzzi first, reexamines three activity-theoretical tenets of the object: it is a "sensemaker," it is both objective and projective, and it is cyclically transformed and second, suggests how these tenets might help us better understand cocreated networked objects.

**Format:** Paper presented in a Symposium (219)

# Transformative onto-epistemology and its implications for expanding, revising, and renegotiating Vygotsky's project: The relevance of subjectivity and intersubjectivity

Anna Stetsenko *(The Graduate Center, City University of New York (CUNY) (New York, NY, United States))*

Ever since the second wave of revisions of Vygotsky's theory undertaken within his research project in the late 1980s and early 1990s (e.g., works by Asmolov, Bratus, Vasilyuk, Zeigarnik, Zinchenko, among others; the first way referring to Leontiev's reformulations along activity theory lines), spurred in no small part by the zeitgeist of perestrojka, the calls have been for more emphasis on subjectivity, personality, and the self. Broader, and not unrelated, calls to reinsert dimensions of emotions, creativity, and novelty into cultural-historical theory constituted another line of these revisions. Research on perezhivanie belonged to this line of works. As has been discussed in detail (see Stetsenko, e.g. 2004, 2005, 2009, 2016; Stetsenko & Arievitch, 2004, 2010; Sawchuk & Stetsenko, 2004), the historical trends in sociopolitical changes played a significant role in shaping the shifts (one could say, pendulum swings) in the dynamics of Vygotsky's project – from a freedom seeking and revolutionary gist of its first formulations advanced within the crucible of the revolution which unleashed unprecedented agency and transformative potential, through decades of increasingly stifling top-down bureaucratization of the Soviet society, to invigorating changes during the short time of perestojka. The key conundrum is that to do revisions of Vygotsky's project requires first defining its major contours, grounding assumptions, and leading tenets including at the level of ontology, epistemology, methodology, and ethics. However, the philosophy and worldview at the core of Vygotsky's work have not been fully appreciated and this shortcoming has affected the way his ideas have been understood and applied (cf. Derry, 2004; Stetsenko, 2010, 2016). One suggestion to remedy this situation (in a series of works since the early 2000s) is to reveal how Vygotsky's project, through the years of its expansive developments, has struggled to integrate the notion that material production, intersubjective exchanges, and human subjectivity form a unified three-fold dialectical system. Focusing on the constant manifold transitions among components of this system as its modus vivendi helps to reveal (a) subjectivity and intersubjectivity processes as being interrelated and co-evolving levels of social practice, and (b) the practical relevance of human subjectivity alongside the human relevance of social practice. In this paper, I will further elaborate on this expanded view that posits human subjectivity on a continuum of the dynamics of historically emerging, contextually situated, collectively coordinated, and culturally mediated social practices in their manifold transitions. I will discuss implications of this position for a transformative onto-epistemology that can be employed to grasp the core of Vygotsky's project in order to move on with its critical elaboration.

**Format:** Paper presented in a Symposium (139)

# A review on Science Teachers' professional development by the lens of Cultural Historical Activity theory

Liana Stylianou *(Environmental Education Centre of Naoussa)*, Nikos Kolios *(Laboratory Science Centre of Ioannina)* &
Katerina Plakitsi *(University of Ioannina Greece)*

An effort to help support teaching and learning, new modes of representation and methods of teachers' knowledge and expertise of research must be explored. In recent years, there have been calls to use cultural-historical activity theory because it affords a concrete theoretical and analytical framework that foregrounds collective activity as both the site for and evidence of learning. Moreover, in recent years, CHAT has been employed in studies of many educational domains. However, CHAT-based research on science teachers, teaching, and teacher learning is limited. In order to contribute to the limited but growing body of CHAT-based education research in the field of science teachers' professional development we present a review of CHATbased studies on science teachers, which is a part of a thesis research that investigates environmental education as a professional development tool concerning science teachers. The international literature on Science education highlights the need for teachers' professional development as a prerequisite for students' learning performance improvement in Science at school. Science teachers' development lies at the heart of nearly every educational effort to improve student achievement. Yet, paradoxically, educators' development is a very maligned enterprise. Science teachers who have declarative knowledge must learn how to turn it into appropriate educational activities for the classroom. Their initiation in environmental methods and practices, through their active participation in environmental programs, can enhance their professional development because Environmental Education put great emphasis on the development of deeper educational and learning processes, and autonomous thinking about environmental issues.

**Format:** Paper presented in a Symposium (175)

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# Perezhivanie as a phenomenon and a unit of analysis for studying children's interactions with iPads in the early years of school in Saudi Arabia (054)

Omar Sulaymani *(Monash University)*

In Saudi Arabia a lack of studies into the use of touch devices in a learning setting, such as iPads, is evident. Little appears to be known about the impact of these devices on children's socioemotional outcomes. The general literature has focused on the use of complex software, how children use digital devices, perform corresponding interactions, and how children's actions are shaped by the imaginary situations that arise during digital play. Although different behaviours could be expected with complex software, only simple software has been examined in the Saudi Arabian context. In this context, the children's interactions with simple iPad software were observed, along with the dramatic effect that such software had on children when digital devices were introduced into educational settings. Data were collected from a grade one class in a public primary school in Makkah, Saudi Arabia. Children aged 5.5-6 years were observed, and their teacher interviewed. Vygotsky's (1994) concept of Perezhivanie has been used to analyse the children's interactions with the iPad software. The study noted how children's behaviour changed, and how emotional behaviours emerged. This poster will present the results of a natural experiment on different behavioural patterns and argues for the use of perezhivanie both as a phenomenon to understand emotional changes in children and as a unit of analysis to determine the extent and type of change. This study contributes to scholarship in relation to perezhivanie as phenomenon and as a unit of analysis in the study of digital devices use in Saudi Arabia.

**Format:** Poster

# Multiprofessional collaboration supporting individuals and communities (253)

Chair: Teemu Suorsa *(University of Oulu)*

Teemu Suorsa *(University of Oulu)*, Kirsi Raetsaari *(University of Oulu)* & Sirpa Ylimaula *(University of Oulu, Faculty of Education)*

In this symposium we discuss a project 'Multiprofessional collaboration supporting individuals and communities' that creates knowledge about successful and unsuccessful practices in developing communities and supporting individual (adult and child) wellbeing, learning and good life at school and beyond. In this project we are asking what and how are the 1) encounters and processes, 2) possibilities and obstacles, and 3) ways to overcome obstacles that professionals – teachers, special educators, school social workers, counsellors, school psychologists, nurses, principals and other managers/ directors etc. – working in different fields of school development are experiencing in their everyday work. We identify professionals' goals, find out what are they doing to achieve those goals, and what kind of successes and failures they experience at their everyday work.

Our theoretical starting point is in the tradition of socio-cultural educational psychology (see Martin, 2006). Particularly we follow the cultural-historical seam that has it's origin in Vygotkskyan and Leontjevian school that has been further developed – in ways that are relevant for our project – as Development work (e.g., Engeström, 2010; Engeström & Sannino, 2009) and in the tradition of subject-scientific psychology of everyday living (see Hojholt & Schraube, 2016; Suorsa, 2015). Of particular significance for the project are the theoretical developments in the field of cultural-historical activity theory that discuss the similarities and differences of these approaches. The project hosts a conversation between these two approaches, and explores the points of resemblance also to different approaches.

The project consists of interrelated studies that will be presented in this symposium. Teemu Suorsa begins by presenting an overview of the project and some of the basic concepts used in research. Teemu Suorsa continues by exploring researchers' collaboration with student welfare groups in Finnish schools. Next Kirsi Raetsaari discusses the phenomenon of high school dropouts from the point of view of professionals and students. Further, she discusses the possibility of developing the school in a way that takes these different subjective standpoints into account. Finally, Sirpa Ylimaula describes her participatory research on workshops for young people not in employment, in education nor in training, where the aim was to strengthen the participants' skills and capabilities in everyday life and help them to find education and/or employment. The presentations will be followed by a discussion about the studies in relation to theoretical and methodological principles in cultural-historical activity theory. After each presentation, there is a short time for questions and comments. There is also time for a more extensive discussion on the project's theoretical and methodological starting points and implications.

Format: Symposium

# Researchers and professionals

Teemu Suorsa *(University of Oulu)*

A student welfare group (SWG) can be seen as a special knot in the fabric of different kinds of practices taking place in Finnish schools. In the meetings of SWG professionals come together in order to plan communal development of the school, and, in different occasions, to discuss individual problems that have come into sight in the everyday work of teachers, principals, special educators, and other professionals. Two researchers participated SWG-meetings for an academic year. In this paper we describe the collaboration between the researchers and professionals whose outgrowth was 1) choosing the advancement of students' responsibility as a specific common goal of the SWG, 2) a focused discussion on the advancement of student responsibility in the professionals' everyday work, with the aim of concretizing and sharpening the common goal through focusing on the everyday practices where professionals found that they had succeeded in advancing the students' responsible action, 3) a further specification of the common goal through brainstorming everyday practices that would enable the group to collaborate more effectively in achieving their goal. A special attention is given to the collaboration between researchers and professionals as a subject-scientific way of conducting research. Further, we describe the collaborative analyses of discussions, as well as tentative results of these analyses.

**Format:** Paper presented in a Symposium (253)

# Logos and transitions. Students, teachers and supervisors through the internship lens (184)

Alessio Surian *(Uiveristy of Padova)*

**Aims**

The purpose of this exploratory qualitative research study is to investigate the transition between academic courses and clinical practicum during the education of speech-language pathologists (SLPs) at the University of Padua (Italy).

**Background**

A common experience during SLP students' first clinical internship is to experience emotional stress and anxiety (Chan, Carter, & McAllister, 1994; Lincoln, Adamson, & Covic, 2004).

**Methods**

The study included four focus groups with students, one focus group with supervisors, and one group interview with teachers. They were implemented between March 2015 and September 2016, involving 2nd and 3rd-year bachelor students.

The focus groups encouraged students to share their personal experiences with the transition.

The data were analyzed using Atlas.ti, adopting a grounded theory (GT) approach in order to identify and to examine the relevant issues concerning SLP internships from students' perspectives.

**Results**

The focus groups made available both individual and collective perspectives of the student before, during and after the internship phases of the program.

The focus groups helped to acquire greater understanding concerning the cause of the anxiety and stress these students face as well as on issues concerning the curriculum and supervisors-students feed-back.

**Conclusions**

The results help to review various aspects of clinical supervision (McCrea and Brasseur, 2003).

The paper illustrates how to integrate various perspectives on clinical supervision is an appropriate means taking into account students' concerns especially on ways to improve supervisors-students feedback during an internship and to better bridge academic courses and clinical practicum during the education of SLPs.

**Format:** Paper presented in a Working Group Roundtable

# Developing professionalism through collaborative dialogues - the importance of learning dialogues among teachers (351)

Elisabeth Suzen *(Nord University)*

Background:
Teachers are crucial in curriculum realization and implementation. When a new curriculum is introduced, it can present challenges to the teachers in practice, and it is important to be aware of the challenges and how we cope with them. In Norway, a new curriculum for driver training was introduced in 2005. And in 2013, I made a National evaluation regarding the teachers' experiences with interpreting the curriculum.

Dialogue as fundamental for the development of professionalism:
My findings show that the teachers emphasize the importance of interaction, co-construction and dialogues between colleagues as critical to developing curriculum understanding and their own professional practice. In addition, say the teachers the importance of what we interact if and how, and they also speak of interaction intent and values - why the interaction occurs. Teachers feel that this is significant, both for how they treat each other, how they communicate and what gets attention in interaction processes. Teachers in the study confirm that professional practice is constantly evolving, where a lot of teacher professionalism cannot be learned in formal view, but must be developed in collaboration and dialogue with others in practice.
In such a development of curriculum, understanding becomes collegial interaction and co-construction of learning essential. I will, in my presentation, discuss this topics and results from the National evaluation I made in 2013 (qualitative study).

**Format:** Paper presented in a Working Group Roundtable

# What is disruptive about disruptive behavior? (285)

Thomas Szulevicz *(University of Aalborg)*

This paper discusses developments and changes in attitudes towards disruptive behavior within schools. Disruptive behavior and lack of school discipline have for decades been regarded as major issues in most educational systems. This article claims that recent neoliberal trends in most western educational systems with increased focus on student learning outcome are about to change the attitudes towards disruptive student behavior. This change originates from a belief that lack of school discipline and an abundance of disruptive behavior among students are to blame for reduced student learning outcome. Drawing on educational philosopher Gert Biesta, the paper claims that the outcome-based and neoliberal approach to education basically promotes an un-educational way of thinking about education that also influences perceptions of and tolerance towards all kinds of disruptions in schools.

**Format:** Paper presented in a Paper Session

# Research in training and teaching practices: contributions of the historical-cultural theory and the subjectivity theory (178)

Maria Carmen Tacca *(Universidade de Brasília)*

The paper proposes to defend the value of research in teaching practices and training. Research comprehended through the interventive-investigative activity in school, in the classroom, of the pedagogical practice and for the student in his learning processes. A research project, in which pedagogy graduates, postgraduates – masters and doctorate, University teachers, which constituted research teams in Distrito Federal's public school system, more specifically, with teachers and students at the beginning of schooling, at literacy level. The project counted with Vygotsky's Historical-Cultural Theory, in his defectology studies, as well as González Rey's Subjectivity Theory. The adopted methodology, inspired by the Qualitative Epistemology, also proposed by González Rey, was structured upon the confluence of the events and upon the inquiries that constituted this investigation's focus, had a procedural, constructive-interpretative character. The vast learning resultant of the process was reported, described, conducted and constituted itself as produced knowledge brought to the discussion bearing in mind to identify its contributions. This allowed for us to develop innovative theoretical and practical establishing research as the pillar for teaching practice and training.

**Format:** Paper presented in a Working Group Roundtable

## Social School Architectonic: a social, historical and cultural study about power and control relations in spaces, artefacts and discourses (360)

Adolfo Tanzi Neto *(University of International Integration of Afro-Brazilian Lusophony)*

This presentation, situated in the field of Applied Linguistics, seeks to address the role of language in different school settings. Through the study of three distinct schools of the Brazilian public education, this paper pursues to discuss how the relations of power and control in social positions and discursive mediation artefacts constitute a specific school space and thus influence the conscience formation of its participants. We also intend to reflect upon how a distinct school physical space contributes to different possibilities of social positions and discursive artefacts. Therefore, based on a socio-historical-cultural research, exploring the concept of mediation [oposredovanie] (Vygotsky, 1978, 1981, 1987, 2009 [1934]) we seek to understand how the human cultural development is being performed and how participants of this culture are mutually shaped. From the reflections of Bakhtin (2010 [1924]) and Bernstein (2003 [1990], 1996, 1999, 2000) other aspects are analysed. The first author bolsters this discussion with studies on the architectonic form, aesthetic and genre, in which we attempt to understand the verbal-visual mass of a school setting, and thus understand their interdependencies, its dialogical and axiological positions of its participants in a specific architectonic form that governs the construction of a verbal-visual mass communication. The second contributes with studies on the relations of power and control within an institution that tend to control the forms of communication or open spaces for different forms to be materialised.

**Format:** Paper presented in a Working Group Roundtable

# Community-based learning in universities in a 'knowledge economy' (051)

Alison Taylor *(University of British Columbia)*

Community service-learning (CSL) programs are proliferating in Canadian higher education. University programs promote students' experiential learning in community as part of a course; students most often engage in unpaid work in not-for-profit organizations and reflect on that experience in relation to their classroom learning. However, programs tend to occupy an ambivalent position in higher education—they are seen as important, but at the same time are often under-resourced and treated as marginal to universities' core activities. This paper argues that the contradictory position of service-learning is partly related to the bifurcated view of theoretical and practical knowledge perpetuated in knowledge economy discourse. Drawing on interviews with service-learning program leaders, it explores their responses to knowledge economy discourse. Findings suggest varying levels of resistance; some leaders comply with university pressures to engage in transactional approaches to service-learning, while others seek to integrate theoretical and practical knowledge through the creation of hybrid learning networks. This paper outlines the reasons for and implications of different responses and suggests that socio-cultural learning theories can inform pedagogical approaches within programs.

**Format:** Paper presented in a Paper Session

# Resilience and resistance in the school-to-prison nexus: A narrative study (121)

Clarice Thomas *(Georgia State University)* & Michelle Zoss *(Georgia State University)*

Interrupting the school-to-prison pipeline in education calls for collaboration between educators, researchers, the community, and students. This qualitative study examines the life of an individual with experiences on the school-to-prison pipeline, a metaphorical representation of a complex nexus that identifies, targets, and moves students from classrooms to courtrooms to jail cells. These students include a disproportionately large number of African-American students. Through interviews and analyses, we present the narratives of a male, African American college student's experiences moving in and out of multiple homes, schools, and a variety of spaces in the penal system. Implications focus on ways we can interrupt the practices, power, and pedagogies that keep the nexus in motion.

**Format:** Poster

# Becoming Other: transforming the social situation of development for young people deemed at risk of school exclusion through arts based interventions (063)

Ian Thompson *(University of Oxford)*, Harry Daniels *(University of Oxford)*, Alice Tawell *(University of Oxford)* & Nicole Dingwall *(University of Oxford)*

This paper focuses on the effects of arts-based interventions for young people deemed at risk of school exclusion because of social, emotional and behavioural difficulties. Vygotsky's concept of the social situation of development is used to provide an analysis of disengaged young people's experiences of participating in arts programmes designed to re-engage young people in education. Using a range of qualitative methods, including observations and interviews, the study explored the potential for creative arts interventions to transform young people's (aged 11-16) social situations of development and, in so doing, effect changes in behaviour and way of being. The findings suggest that the intervention that the arts organisation offered these young people alternatives to their personal, cultural and historical ways of experiencing the world. In 'becoming other' as an artist, experimenting with different art media and trying out creative ideas within a safe environment, the young people chose to try out becoming a different version of themselves. This process of adopting a new identity in becoming an artist involved experimenting through trying something new, getting constructive feedback, and internalising the process. The introduction of an element of socialised play into the curriculum through creative arts interventions helped these young people to negotiate the crisis of a social situation of development. These findings suggest that imagination, invoked through the social situation of play, can help disengaged young people to change their perceptions about the imagined worlds of the future.

**Format:** Paper presented in an Interactive Paper Session

# A social network analysis of school advice-seeking patterns to support vulnerable learners: A critical methodological account (112)

Ian Thompson *(University of Oxford)*, Harry Daniels *(University of Oxford)*, Lorena Ortega *(University of Tübingen)* & Alice Tawell *(University of Oxford)*

Supporting the learning and wellbeing of vulnerable students is a complex part of school educators' work. Although research has suggested that collaboration among colleagues can help them meet the needs of at-risk students, there is less research on the institutional cultures of collaboration.  In this study, we explored the social networks of advice among school staff on supporting the learning and wellbeing of vulnerable students. The project examined the different patterns of collaboration to support vulnerable learners between teachers in six English secondary schools. A mixed methods approach was used that combined findings from Social Network Analysis (SNA) with in-depth interviews. It was found that patterns of collaboration among staff varied substantively among the schools and that they were coherent with formal organisational structures. We are concerned with the ways in which the practices of a school community are structured by their institutional context and argue that social structures impact on the interactions between the participants and the skills, knowledge and understanding that reside in those institutions. We provide a constructive critique of SNA from the perspective of activity theory and argue that the fluidity of social relations within activity systems calls for a multi-layered approach to data collection.

**Format:** Paper presented in a Paper Session

# Collective motivation for sustainable activity in digitalized work (137)

Hanna Toiviainen *(University of Tampere)*

This paper focuses on the collective motivation of the digital printing network that collaborates to generate sustainable activity in the textile, clothing and interior printing industry. How collective motivation for global sustainability is emerging in local networks' activity is a question that has gained little attention in learning research. In search of the mediating concept of motivation, I will turn to the methodology of the cultural-historical activity theory that conceptualizes the construction of the object of activity as the source of motivation. The object of activity as true motive of a given activity (Leontjev, 1978; Miettinen, 2005) emphasizes the materiality of motivation and offers a dialectic alternative to the evolutionary approach to the business ecosystem research (Peltoniemi & Vuori, 2004).

Activity-theoretical studies of Developmental Work Research have demonstrated that creating and maintaining motivation in collective activity takes deliberate developmental actions oriented towards the joint object construction (Miettinen, 2005). It is a process of learning by encountering and solving contradictions that emerge in a complex societal network. Collective motivation is oriented towards creative activity to deal with demanding objects. Emerging motivation in networks is multivoiced, not unanimously formed (Pereira-Querol, et al., 2015). The analysis of the digital printing network's collective motivation entails the participants' orientation to the creative activity and the question: What is the object that they care about (cf. Adler and Obstfeld, 2007)?

**Format:** Paper presented in a Paper Session

# Digitalization, complex objects and learning in networks (146)

Hanna Toiviainen *(University of Tampere)* & Liubov Vetoshkina *(University of Tampere)*

This paper investigates learning challenges by focusing on complex objects that emerge and are co-created on multiple levels of a digital printing network. Digitalization transforms the object of digital printing activities: they become more complex, open-ended, difficult to define, and exist in a variety of instantiations. The research follows a small network of digital printing, constituted by representatives from design, printing industry, vocational education, research, and customer-consumers. The network collaboratively plans and implements novel digital product and service concept. The objects determine the horizon of possible actions for the participants' creative activity (Engeström, et al., 2003). In the cultural-historical activity theory framework, the diversity and multiplicity of objects and activities can be analyzed on multiple levels of learning emerging in a network (Toiviainen, 2003; 2007).

The research questions are: What are the instantiations of the object of multiple activities in the digital printing network? What kind of challenges and opportunities do complex objects produce for collective learning?
The empirical analysis focuses on the data from a network-learning workshop. The results of a thematic analysis of the workshop discussion show that the complexity of the digitalized object appears in the multiple instantiations represented differently for different stakeholders – figurative, digital, material-haptic, etc. (Knorr Cetina, 2008). We interpret our findings as challenges for learning in the emerging digital printing network that collaborates to create and expand with digital service.

**Format:** Paper presented in a Paper Session

# Relational agency and the development of tools in service networks

Hanna Toiviainen *(University of Tampere)*

This presentation focuses on the tool-mediated basis of relational agency and relational work: how practitioners create, use, and modify collaborative tools, such as concepts, documents, annual clocks, action cards and virtual systems, to support their joint work. It draws on five different service networks to highlight the integration of the object of collaboration and the materialisation of the network script. The findings indicate developmental dialectics between relational agency and the tools of collaboration meaning that relational agency contributes to the emergence and transformation of collaborative tools, and developed tools, in turn, shape possibilities for relational agency to occur and grow in service networks. The notion of relational agency enriches our understanding of the complex dynamics of cross-sectoral tool development and highlights how professionals use tools to maintain and transform their service networks.

**Format:** Paper presented in a Symposium (029)

# Concept of will in Vygotsky's tradition (401)

Nataliya Tolstykh *(Moscow State University of Psychology and Education (MSUPE))*

In the frame of the tradition represented in Vygotsky's works, a primary scientific effort is applied to the understanding of how an individual acquire knowledge and skills. What is still left in the shadows is the personality component of this development. Two pupils and followers of Vygotsky, Leontiev and Bozhovich, worked towards filling this void. In her personality theory, Bozhovich introduced a concept of will as central for understanding personality development. The author of this article developed the concept of will further while staying within the tradition of thought represented by Vygotsky and Bozhovich. The main conceptual development lies in drawing a distinction between two concepts – will (volya) and goal appropriation (proyzvolnost'). Both concepts emphasize the readiness and ability of an individual to pursue a goal; the distinction lies in the nature of that goal determination: in will, it is self generated and comes from the inner world of the individual while in goal appropriation, it is determined by an external source but is readily appropriated. Such a distinction is supported by recent findings in neuroscience which describe the actualization of different brain structures depending on whether an individual acts upon will or willingly submission. Hence, the personality development is considered a process of will development in which will and goal appropriation inter plays and progresses in specific stages paving the way for subjectivization or becoming a true subject of that culture.

**Format:** Paper presented in a Paper Session

# Collaborative projects in the transformation of the Math class at the primary, secondary et adult education levels (444)

Mélanie Tremblay *(University of Quebec at Rimouski)*

This paper illustrates how the Change Laboratory (Engeström, Rantavuori & Kerosuo, 2013) as an intervention-research methodology has been applied in three different projects where people (researchers, teachers, pedagogic consultants and also members of the Educational Ministere) work together in a structured and cyclical way to envision new mathematical activity in their organisation. We will focus particularly on a project at the adult level. The aim was to implement a new program of mathematic. We will illustrate how different methodological tools (informal interviews, focus groups, teacher's activity analyses) led us to identify some contradictions in our activity systems and how to study our interventions.

**Format:** Paper presented in a Working Group RoundTable

# Learning about "offstage interests" acquired through science cafe activities (010)

Eiji Tsuchikura *(Hamamatsu Gakuin University)*

In this paper, I clarify the features of the learning acquired by college students who participated in science cafe projects.

Science Cafe events were held six times during one year through projects in Hamamatsu City, Shizuoka Prefecture, Japan. In these events, the participants lectured citizens on psychology and facilitated group work through events at cafes and the community center. In the projects, they played various roles such as planner, spokesperson, lecturer, facilitator, and manager.

To clarify the features of the leaning that students acquired, I collected data through interviews of six college students, after all events had been completed.

By analyzing the data, I clarified the following three points. First, the college students learned about "offstage interests," implying that they became interested in others' offstage activities such as regional contribution activities and concerts. The offstage activities are out-of-sight from the onstage activities that they appreciate, or in which they participate. Second, their learning about "offstage interests" involves taking a keen interest in, and empathizing with, others' offstage activities. Third, fostering learning about "offstage interests" requires two factors: 1) undertaking various roles in the science cafe projects, and 2) creating a framework of activities from scratch. They acquired an interest in others' offstage activities and empathized with others through such projects.

They knotted together various actors such as citizens, administrative staff, cafe staff, and community center staff in the science cafe events. Thus, their activity was a kind of knotworking.

**Format:** Poster presented in a Structured Poster Session

# Translating cultural-historical psychology: comments from a lay professional (428)

Olga Tuchina *(Russian University of Peoples' Friendship)*

Translating texts for the Chess for Overall Development Project (Zaretskii, 2015), we have encountered several types of challenges that may be illustrative of what translators in the field of cultural-historical psychology (CHP) may deal with. Translators use various tools and strategies in pursuing equivalence. Lack of the uniform CHP vocabulary and consensus on the CHP terms; differences in transformational techniques and levels of the translators' linguistic competence and their competence in CHP as such, result in co-existence of various translations of the same concepts, which may interfere with the process of communication and become a subject of controversy. Other challenges relate to specific linguistic features of the psychological scientific discourse of CHP, i.e. the need to observe rigorous scientific requirements to style and content, and abundance in expressive emotionally and culturally charged utterances and vocabulary. The CHP terminology is characterized by specific word formation; lack of stylistic neutrality and lack of equivalent terms in target languages. Therefore, an appropriate translation implies using a special modification technology to create a target-language term which would have an equivalent denotative meaning; meet the requirements of the scientific style; and preserve its stylistic uniqueness, emotional and cognitive relevance (ensuring congruence of the reader's experience with the author's experience as mirrored by the lexical unit).

**Format:** Paper presented in a Paper Session

# Exploring cultural-historical methodological approaches to research on discoursal identity construction of student writers across social justice education programs (318)

Nicole Turnipseed *(University of Illinois at Urbana Champaign)*

Studies of students writing within academic discourses look at how students are socialized into (or away from) particular practices and communities (see Bartholomae, 1985; Berkenkotter & Huckin, 1995; Bizzell, 1982; Prior, 1998). Research on students' discoursal construction of identity through academic writing points to institutionally circumscribed and regulated meaning-making (Lillis, 2001) but also recognizes the possibility of struggle for alternative constructions of self (Ivanic, 1998). This line of inquiry is valuable for educators who wish to create spaces for learning grounded in an understanding of how students – as whole human beings with complex lives – develop in the context of programs, and vice versa; it is important to undergird our educational programs and reforms with our understanding of the part institutions (made up of individuals) play in continually recreating societies by affording and constraining identities, and how seemingly totalizing forces are actually perpetuated. These programmatic goals are grounded in sociocultural views of learning as becoming (Lave & Wenger, 1991; Beach, 1989) that stress the development of the student as a subject (Gonzalez Rey, 2003) and argue for school as a place for making people, for being and becoming (Packer, 2001). However, studies of writing and identity situated in school contexts, typically constrained to segmented curricular programs (Nowacek, 2011), contrasted as they often are with studies of workplace literacy (Dias et al., 1999), risk constructing artificial barriers between the classroom and the world, precluding a holistic view of writers' identity formation crucial for programs and pedagogies aimed at development. Social justice education (SJE) oriented programs, with their focus on culturally relevant pedagogy and critical attention to evaluating and changing interlocking systems of discriminatory institutional structures and cultural practices, provide a key research site to contribute to and extend conversations about writing-mediated identity formation because they are places where we invite students to juxtapose their academic world with other social worlds. At Ph.D. Day's plenary session on cultural-historical approaches to methodology, I hope to discuss, via dialogue paper, my multisite, ethnographic exploration of writers' identity construction as it is facilitated by mentorship across a range of formal and informal SJE programs.

**Format:** Paper presentation on PhD Day

# Stories of youth persistence: How relationships sustain students' participation in education through intrapersonal, interpersonal and community level engagement (331)

Kersti Tyson *(University of New Mexico)*, Molly Perara Lunde *(University of New Mexico)*, Ian Esquibel *(Learning Alliance New Mexico)* & Chris Jonas *(Little Globe)*

How do relationships support students' on-going generative and joyful participation in school and education? We draw on data generated by two non-profit organizations who collaborated to listen for and amplify youth's voices in New Mexico in the US, through a community-based project called "Stories of Learning." In our analysis, we seek to understand how these stories are explained in, and contribute to, current theoretical frameworks (Bronfenbrenner, 1979; Ladson-Billings, 1995; Stanton-Salazar, 2011; Vygotsky, 1978). To help us with this analysis we draw from and weave understanding with, Rogoff's (1996) three planes of analysis, the personal, interpersonal and community. Students in this study identify sources of emotional and academic supports that sustain their participation in school. Our analysis focuses on describing how adults can and do empower students, and how students experience, accept and choose to live out that empowerment. Thus, the story we tell is how relationships support students' on-going and productive participation in school, in obtaining an education, and beyond. Our hypothesis is that Rogoff's three planes are present in interactions that sustain students' reported participation in schools. Thus, in order to develop and sustain caring relationships, teachers/adults need to attend to these three levels, -- i.e. they need to see the student based on where he or she is now (personal), respond responsively and responsibly to where the student is and where he or she may grow (interpersonal), while leveraging current and future possibilities to which students have access inside and outside of school (community).

**Format:** Paper presented in a Working Group Roundtable

# A theoretical framework for studying the experience of listening in learning (335)

Kersti Tyson *(University of New Mexico)*

Building on the idea that our "social world exists because of participants' unending and diverse work of reproducing and changing it" (Dreier, 2008, p. 22), I have developed this conceptual framework to identify if and how listening in educational settings produces, reproduces, and/or interrupts social practices that reproduce an education debt (Ladsen-Billings, 2006). My aim is to understand better the role of listening in learning interactions so that we more fully understand current practices, as well as identify and imagine practices will help us to hear and respond better to children's voices and recognize their value to our public education, our human potential, and themselves. It is also an attempt to answer the question, "what would a pedagogy of listening be like, and how might it matter?" While there are many kinds of activities upon which one could focus such a study, I have identified listening because of the social nature of the phenomena of listening: Listening is ultimately social, not only because we hear one another, but also because we are heard. I propose that it is being heard and responded to (or not) that ultimately affirms (or not) who the subject is within a local context and what the possibilities are for that subject to come into presence. Such listening, in turn, links to the structures of social practice that guide and are guided by our human activities – and the possibilities of activities (and presence) - within a social context (Dreier, 2008, p. 23).

**Format:** Paper presented in a Working Group Roundtable

# Learning by observing and pitching-in and the connections to native and indigenous knowledge systems

Luis Urrieta *(University of Texas at Austin)*

This paper opens a broader dialogue of Learning by Observing and Pitching-In (LOPI) with Native and Indigenous Studies, and Native and Indigenous Education, drawing particular attention to how LOPI can provide a model for better understanding Indigenous pedagogy in Indigenous Knowledge Systems (IKS). As Battiste (2001) pointed out, "Indigenous pedagogy values a person's ability to learn independently by observing, listening, participating with a minimum of intervention and instruction." Like LOPI, IKS include ways of knowing and ways of being in the world, with life-long processes and responsibilities that model competent and respectful behavior. The chapter explores similarities and differences between IKS and LOPI by analyzing each perspective's scope, defining features, and foundational origins, as well as what each contributes to our understanding of Native and Indigenous communities, especially regarding learning and incorporation into adulthood and family and community life.

**Format:** Poster in a Structured Poster Session (077)

# Indonesian children's play and learning in the context of a project approach (418)

Ade Dwi Utami *(Monash University/Universitas Negeri Jakarta)*

Elkonin (2005) argued that play can not be separated from children's life and their play practice reflects the themes of everyday life. According to Vygotsky (1966, 2016), play is the source of preschool children's development. Yet how play is enacted in Indonesian preschools has received very little attention. This paper focuses on how children play in the context of a project approach to learning, where play is explicitly supported. A project approach is relatively new for Indonesian early childhood education, and as such, provides a rich context in which to study children's play. The purpose of this presentation is to discuss an empirical study about children's play through a project approach to learning. The study utilised a qualitative approach to data gathering. Data were collected from 25 children and 3 teachers through observation and interview (94 hours of data were generated). The study found five categories of how children's play through a project approach to learning, and these findings are discussed in the context of the play literature where biological, rather than cultural, interpretation of play dominate. A key finding that stands out was the lack of children's play in the context of Indonesians kindergarten settings. Reasons suggested are, first, the lack of teachers' knowledge about playing in a project approach to learning. Second, the traditional role of the teacher in Indonesian preschools appeared to work against the pedagogy of a project approach to learning, and third, the demands of an academic curriculum, where learning objectives are expected to dominate teaching practice. These findings contribute to better understanding of the relations between play and learning in the context of Indonesian preschools.

**Format:** Poster presentation on PhD Day

# Learning in diversity: Redefining parenting in a context of polarization (207)

Spark van Beurden *(Utrecht University)*

Migration, globalization and digitalization have caused families to increasingly engage in transnational ties. At the same time economic crises, international wars and recent terrorist attacks contribute to ethnic tensions between sociocultural groups. Transnational parents and their children in European societies are facing increasing polarization in societal discourse and experience stereotyping and racism in everyday social encounters. This dialogue paper starts out by providing a review on parenting and learning in a cultural contact zone characterized by ethnic tensions and polarization. The paper continues by presenting a case study in which socio-cultural perspectives on learning and development are used to understand how transnational parents learn and reconstruct their parenting beliefs and practices engaging in such a context. The analyses focus on 1) how transnational parents experience their parenting contexts and 2) how these experiences affect their learning processes concerning parenting. Semi-structured in-depth interviews with parents from Moroccan diaspora living in Dutch urban areas (n=23) and micro-ethnographic data (n=3) were gathered. Preliminary results show that transnational parents increasingly experience a clash between their parenting and learning intentions and practices on the one hand and representations of themselves as parents in societal discourse on the other. Moreover, parents become more conscious of the citizen aspects of their parenting and increasingly worry about their children's identity formation and citizenship. The results reveal how the parenting practices they create in order to cope with the experienced polarization present in their parenting contexts are a result of the socio-political setting these parents are situated in.

**Format:** Paper presentation on PhD Day

# Learning in diversity: Redefining parenting in communities of practice

Spark van Beurden *(Utrecht University)*

After migration parents are challenged to reflect upon and reconstruct their parenting beliefs and practices, sparked by the cultural contact zone they engage in. This paper discusses how informal and formal social learning processes of transnational parents can be seen within a perspective of communities of practice (Wenger, 2010), while also addressing issues of intercultural learning (De Haan, 2011). Its goal is to analyze 1) how transnational parents learn about parenting through spontaneous social encounters within their social network and 2) if and how these learning processes are affected by a parenting training program. The training program, which was set up by a grassroots organization, is a so-called bottom-up intervention aimed to support parents who are part of the Moroccan diaspora and living in Dutch urban areas. The program takes the migration history and religious background of the parents into consideration and sees the agency and learning of its participants as important principles. The perspectives of communities of practice (Wenger, 2010) and cultural translation (De Haan, 2011) are used to understand the way transnational parents seek, select and use parenting capital and support each other in informal and formal learning spaces to define new (hybrid) parenting beliefs and practices. Pre- and post- intervention survey and interview data (n=80), pre- and post- intervention social network interview data (n=23) and ethnographic observations of the training data were gathered. Participants include mothers as well as fathers. Preliminary analyses show that transnational parents engaging in cultural contact zones become more conscious about moral, religious and cultural aspects of parenting. Moreover, the training helps parents to increasingly see themselves as learners, who become more reflective about their own parenting and learning and that of others, while expanding their repertoire of parenting skills. Analyzing the learning of parents in the formal setting of a parenting program from a perspective of communities of practice sheds light on the networked learning processes that lay at the base of the reconstruction of parenting beliefs and practices. Implications for the field include the integration of informal social networks in parenting program designs and the adoption of a learning approach.

**Format:** Paper presented in a Symposium (216)

# Dialogic classroom talk and the dialogical self (102)

Marjolein Dobber *(Vrije Universiteit Amsterdam),* Chiel van der Veen *(Vrije Universiteit Amsterdam)*, & Bert van Oers *(Vrije Universiteit Amsterdam)*

When one observes a classroom conversation in a typical classroom, one will probably notice that the teacher asks the questions, talks more than the children and is mainly focused on the reproduction of cultural meanings. Although, these monologic forms of classroom talk have their importance for the transmission of (cultural) knowledge to successive generations, classroom talk that is merely focused on the reproduction of knowledge does not give room for children's shared thinking and understanding. Dialogic classroom talk, on the other hand, gives children space to think together and cross the boundaries of their own understandings. Research has shown that dialogic classroom talk is positively related to children's learning.

In dialogic classroom talk, the dialogue becomes part of the self, and the self becomes part of the dialogue. In this dialectic process, children (and teacher) bring different (sometimes conflicting) socio-cultural I-positions to the fore from which they 'view' the topic that is being discussed. These I-positions are negotiated in order to reflect upon one's own position and understand the position of the other. This is closely related to Vygotsky's ideas about the internalization of interpersonal dialogue.

In this presentation, we will connect the notion of dialogic classroom talk with the concept of the dialogical self. Using classroom observation, we will show how dialogic classroom talk gives children space to think together. This interpersonal dialogue might become part of the self; a dialogical self that is willing to understand the other and revise his/her understanding in light of new arguments.

**Format:** Paper presented in a Paper Session

# 'Learning under the tree': Changing parenting in rural Kenya

Ruben van Esch *(Utrecht University)*

Child raising and parenting in the African context are subject to a high level of intense change, which has called for a more explicit attention to the practice of parenting by national and international policy makers. Through globalizing forces, parents are more than before exposed to ideologies of childhood and parenting from other regions in the world. Notions of parenting are rapidly developing from a collective responsibility for all community members to a highly individualized task that takes place in the smaller social unit of the nuclear family. On top of this, social cohesion and the related care responsibilities are under great pressure for a number of different reasons, amongst them HIV-AIDS which result in many single parent families or child-headed households. These trends lead to an increased attention for intervention programs in the area of parenting, especially in the context of international development. In many cases, the rational to intervene is seen as the solution for observed child abuse or violence against children. However, from a critical lens on international development, the issue has been raised that in such attempts not necessarily match with local traditions and culturally adaptive notions of childhood or parenthood. In this study, an analysis is made of the effects of such a training program from a sociocultural perspective on how parents learn, adopt and reject, and reflect on what for them is new knowledge on how to parent. By using a community of practice perspective (Wenger, 1998, 2010), the analyses focus on how the training creates new collective learning opportunities, as well as how they relate to traditional community networks, care relationships, knowledge and responsibilities in the area of parenting. The study is part of an evaluation study of a parenting program 'Skillful Parenting Programme' (SPP) developed by ICS, an international NGO based in the Netherlands, and implemented in West Kenya. The issue of parenting is addressed in the program from the perspective of family dynamics and effective communication in the family, amongst other things. The evaluation research consists of a pre-post test design involving 100 parents, combined with in-depth interviewing post intervention involving 30 parents who participated in the program, as well as observations of the training sessions. The analyses revealed that the program was able to address the falling apart of the traditional task divisions between the generations in children's education through creating a new awareness of responsibilities and task divisions. Parents saw the disruption of traditional learning communities related to the lesser role of grandparents who played a significant role in the moral and social development of young children, and in the passing on of knowledge on parenting. The program helped re-establish the participants learning community by making parents and trainers share experiences, and in turn sharing this new expertise with parents that did not participate in the program. Results show that parents feel more competent as parents, and report that they have changed the manner in which they discipline their children. They use techniques such as listening to understand better their children's needs, which they find results in improved relationships. Parents justify their new behaviors, not in terms of 'what is right' but point to the fact that they work better. Making use of these analyses the paper reflects upon the more broader issue how we should think of implementing parenting programs cross-culturally while working with different conceptualizations of childhood, disciplining and violence, as well as of community.

**Format:** Paper presented in a Symposium (216)

# From standing in front to sitting at the Roundtable: the case of teacher Rob

Martijn van Schaik *(Meester! onderwijs inzicht, Fontys University of Applied Sciences, NCOI University)*

In this paper, I'd like to discuss the case of Rob, an in-service student teacher Human & Technology at the University of applied sciences Amsterdam. As a teacher educator and researcher from the cultural-historical tradition I am interested in how I can design, in a team, a developmental teacher education curriculum that is both open and structured; courses with content in students' zone of proximal development and meaningful for their (future) practice. In this case, the student teachers received the assignment to conduct a small action-research project on classroom management. Rob's project was started off with a video sample he brought forward as an example of his problems with his classes into the group of peer student teachers and me. This video sample can be regarded as a boundary object that crossed both the boundary between his classroom practice and teacher training as well as the boundary between personal reflection and the collective peer group activities on classroom management and action-research. As it turned out later, Rob's problems with classroom management triggered him, as a bumpy moment' (Kan, 2010), to write a research report on Deci and Ryan's Self-Determination Theory. Working on this, Rob developed his personal professional theory (Schaap, de Bruijn, Van der Schaaf & Kirschner, 2009) on his pedagogy that the relation with the students was the base to build his teaching upon. I conclude that, for Rob, the assignment worked as a tool to move "from individual reflection on action to joint reflection on collaborative activity" (Virkkunen & Ahonen, 2011).

**Format:** Paper presented in a Symposium (340)

# Dialogic classroom talk and the dialogical self (102)

Chiel van der Veen *(Vrije Universiteit Amsterdam)*, Marjolein Dobber *(Vrije Universiteit Amsterdam)* & Bert van Oers *(Vrije Universiteit Amsterdam)*

When one observes a classroom conversation in a typical classroom, one will probably notice that the teacher asks the questions, talks more than the children and is mainly focused on the reproduction of cultural meanings. Although, these monologic forms of classroom talk have their importance for the transmission of (cultural) knowledge to successive generations, classroom talk that is merely focused on the reproduction of knowledge does not give room for children's shared thinking and understanding. Dialogic classroom talk, on the other hand, gives children space to think together and cross the boundaries of their own understandings. Research has shown that dialogic classroom talk is positively related to children's learning.

In dialogic classroom talk, the dialogue becomes part of the self, and the self becomes part of the dialogue. In this dialectic process, children (and teacher) bring different (sometimes conflicting) socio-cultural I-positions to the fore from which they 'view' the topic that is being discussed. These I-positions are negotiated in order to reflect upon one's own position and understand the position of the other. This is closely related to Vygotsky's ideas about the internalization of interpersonal dialogue.

In this presentation, we will connect the notion of dialogic classroom talk with the concept of the dialogical self. Using classroom observation, we will show how dialogic classroom talk gives children space to think together. This interpersonal dialogue might become part of the self; a dialogical self that is willing to understand the other and revise his/her understanding in light of new arguments.

**Format:** Paper presented in a Paper Session

# Creating the conditions for supporting learning and identity in community

Olga A. Vásquez *(University of California, San Diego),* Lorraine Orozco *(University of California, San Diego),* Jacob Alvarado *(University of California, San Diego)*

Public education in the United States reveals a history of difficulties in addressing the learning needs of nonmainstream youth and in particular their identity as learners. Over the past 25 years of designing optimal learning environments based on sociocultural theories of learning and development, research on the original La Clase Mágica (LCM) in Southern California, has concluded that these difficulties are centered on the students lack of access to previous knowledge as pivots to negotiate the nuances and intentions of mainstream education and their developing identities as learners, setting these young people on a path to learning challenges and ultimately social exclusion. Adapting the learning context to the sociocultural and sociopolitical realities of the new cultural community has been one-way. LCM has addressed these issues in other iterations of the program (Vásquez, 2003, Vásquez, Flores & Clark, 2014). Another has been the inclusion of community members as key partners in the problem-solving process. Noting these challenges, collaborators at the San Pasqual Reservation, located in San Diego County, named their variation of the program, TACKLE (Technology and Culture, Kumeyaay Literacy Education) to address issues they consider of ultimate concern as the underperformance of Native youth in public school (Vásquez & Marcello, 2010). Over the last 16 years, TACKLE has endeavored to design an educational program that best fits their cultural and educational needs. This presentation will focus on the ways that LCM has morphed to the cultural and pedagogical strategies of the Native American community of San Pasqual in Southern Californian and on the gains it has made in the process. Reviewing 16 years of ethnographic field notes written by novice researchers enrolled in a practicum course at the University of California, San Diego and interviewing past participants as well as reviewing their academic trajectories, we hope to show the success TACKLE has had in incorporating cultural knowledge and practice as foundational for learning and the development of learning identities. By all indications, we will conclude that TACKLE has pursued a fruitful approach for participants and their learning lives at school. We expect that our analysis will show that TACKLE has had a positive impact on child participants both at the after-school site and school. We also expect that these lessons will be fruitful thought at the other Native American reservations in the area.

**Format:** Paper presented in a Symposium (151)

# Sexual-affective relationships with HIV/Aids (150)

Talita Vendrame de Oliveira *(Pontíficia Universidade Católica de São Paulo (PUC-SP), Brazil)* & Edna Maria Peters Kahhale *(Pontíficia Universidade Católica de São Paulo (PUC-SP), Brazil)*

Life with HIV/Aids has changed throughout the history of the disease, especially in sexual-affective relationships of this people. It is known that the discovery of HIV-infection may change love relationships, their meanings and how HIV/Aids-infected people develop self-care according to social and historical psychology. We worked with a database set between 2006-2007 and 2010-2012, comprised buy 85 members who answered to 14 pre-selected questions for the sample. Data analysis was carried out after preparing Meaning Groups and, to deepen the quality analysis, there was a Hierarchy Study per similarity using clusters, the speeches of people to comment the sexual-affective relationships and their influence in self-care. The outcome showed two clusters that involved women and men. Cluster 1 "Doing everything equally" is comprised of older married people with lower education level and involved in a stable relationship for longer periods. These people tend to duplicate the hegemonic role expected from men and women. Cluster 2 "Trying to Change!" is comprised of younger people with higher education levels, and people in stable relationships for shorter periods, or not involved in stable relationships. They provided an idealization of a relationship, representing what they would like to have, although they have a better understanding of their reality, being more psychically integrated and having fewer contradictions. Results show most participants tend to duplicate the hegemonic standard of sexual-affective relationships, sometimes with no criticism. Other participants create new meanings for their relationships, developing greater self-awareness, changing some actions and having better relationships, which may encourage self-care.

**Format:** Paper presented in a Working Group Roundtable

# Drama, perezhivanie and development: dialectical considerations

Nikolai Veresov *(Monash University, Australia)*

Perezhivanie is a powerful concept allowing us to study development in its dialectical complexity. There is a dialectics in the process of sociocultural genesis of the human mind - the dialectics of evolutional and revolutionary aspects. Perezhivanie is a prism, which refracts influences of social environment on child's development through interactions of ideal and present forms (Vygotsky, 1994). However, this general statement needs further theoretical improvements. There is a special form of perezhivanie (we can call it a critical or dramatic perezhivanie) as a refraction of a dramatic collision which appears as a confrontation, a contradiction of an ideal and present form. Being refracted by critical perezhivanie, it brings qualitative changes to a child's mental functions and therefore brings changes to how the child becomes aware, interprets and relates to the sociocultural environment. This, in turn, reorganizes the whole social situation of development. Social dramatic events, collisions refracted through critical perezhivanie produce qualitative changes and "turning points" in a child's individual developmental trajectories. In this sense, the concept of critical perezhivanie might be considered as an analytical tool, which unfolds the dialectics evolutional and revolutionary aspects of development as well as dialectics of the social and the individual.

**Format:** Paper presented in a Symposium (127)

# Students' positioning. An exploration of adolescents' negotiation and development of their learner identities in formal educational contexts (043)

Monique Verhoeven *(University of Amsterdam)*, Bonne Zijlstra *(University of Amsterdam)* & Monique Volman *(University of Amsterdam)*

Students, once they come to be understood by themselves and their teachers as low achieving or bad behaving, often find limited opportunities to reposition themselves as better learners. When these understandings of students as learners are inflexible, this may cause education to be less inclusive: students could be given up on not only by their teachers (see e.g. Wortham, 2006), but also by themselves (Vianna & Stetsenko, 2011). Persistent positionings of students as bad learners may thus result in excluding, yet durable learner identities: self-understandings as learners that cause students to disengage from their education.

In this paper, departing from social practice theory (Coll & Falsafi 2010; Vianna & Stetsenko 2011), a multiple case study is presented that examines how educational processes play a role in the development of secondary school students' learner identities. We add to existing research in two ways: Unlike many existing studies (see e.g. Wortham, 2006), we combine the analysis of classroom observations and student interview data. Furthermore, whereas previous research on this topic generally concerns single classroom case studies (Ibidem), we include pre-vocational and pre-university classrooms (N=6) from three different schools. Four students per classroom are interviewed for individual case studies. In employing this research design, we expect to expand insights on the interplay between formal educational processes and mechanisms on the one hand, and the development of students' learner identities on the other. Finally, we hope to discuss with fellow ISCAR 2017 session members how this interplay might be quantitatively assessed in the future.

**Format:** Paper presentation on PhD Day

# Who am I? A qualitative systematic review study on the influence of educational processes and mechanisms on adolescents' identity development (119)

Monique Verhoeven *(University of Amsterdam)*, Astrid Poorthuis *(Utrecht University)* & Monique Volman *(University of Amsterdam)*

Arguably, developing an identity has become an increasingly challenging task due to recent individualization processes in many contemporary societies (Beck et al., 1994). Since adolescents spend much of their time in school, in this qualitative systematic review we identify ways in which educational actors can support adolescents' identity development. This qualitative systematic review aims to provide an overview and analysis of existing research and theories on the ways in which education may influence the identity development of adolescents. Building forth on Penuel and Wertsch (1995), and on Vianna and Stetsenko (2011), we attempt to combine sociocultural theory and developmental stage theory to analyze the impact of educational processes and mechanisms on how adolescents explore, express and negotiate who they are. Based on a systematic collection and analysis of approximately a hundred peer-reviewed papers, we first of all find a variety of educational processes and mechanisms that unintendedly play a role in adolescents' identity formation. Examples can be found in grouping policies, school interior, classroom interactions and educational discourses more generally. Secondly, we find that the intended organization of explorative learning experiences helps adolescents to develop their identity. These are learning experiences that either allow adolescents to further explore their already present self-understandings, or enable adolescents to discover and appropriate new identifications. At the ISCAR 2017 Congress, we hope to present these findings, and to invite the audience to explore with us how identity as conceptualized in CHAT identity theories could best be operationalized in future empirical studies.

**Format:** Paper presented in a Paper Session

# Connecting agency and social change: A transformative activist stance approach to theory and practice in higher education

Eduardo Vianna *(LaGuardia Community College- City University of New York (CUNY)*

The notion of transformative education has become the hallmark of progressive approaches in American postsecondary education suggesting a broad consensus regarding its direction. However, the notion of transformation is associated with profoundly different educational theories that have a significant impact on a broad range of educational practices across colleges and universities. This paper seeks to contribute to our understanding of transformative approaches at the intersection of theory and practice by critically examining interrelated yet radically different conceptions of transformative education. Furthermore, I argue that this discussion is particularly relevant for community colleges, which have been confronted with stubbornly poor graduation and retention rates (NCES 2009). Hence, this paper will examine alternative notions of transformative education vis-à-vis their potential to address longstanding gaps and contradictions in higher education. First, I will discuss the notion of transformative education as the linchpin of the liberal education reform movement in American postsecondary education, which has led many colleges to revise their mission and organizational structure (AAC&U, 2002). Predicated on the need to prepare students for an increasingly global economy and society, its proponents have decried the narrowly cognitive focus of learning and its conspicuously fragmented organization of institutions (Bass, 2012; Keeling, 2004; Kuh, 2008, 2010). Based on constructivist principles into which sociocultural tenets have been incorporated, the liberal reform agenda centers on expanding the definition of learning from a holistic process that takes place not only across many sites through college campuses but also across students' engagement with their communities and the world. This paper considers an alternative understanding of transformative education based on the transformative activist stance approach (Stetsenko, 2008), which posits human development and learning to be grounded on agentive contribution to transformative collaborative practices. By highlighting the centrality of students' contributions to institutional and educational change, based on developing a shared vision of and commitment to social transformation, this paper will discuss how this approach moves beyond liberal agenda reforms (Vianna, Hougaard, & Stetsenko, 2014).

**Format:** Paper presented in a Symposium (270)

# Expansive learning actions in the context of adolescents' health education (449)

Samantha Voyer *(Université Laval)*

Health education is an integral part of the Québec Education Program and is deployed as a Broad Area of Learning and more specifically in the grade 9 Science and Technology class. According to the program objective, knowledge of the human body should help students to take responsibility for their own health and to make healthy lifestyle choices (MELS, 2007). Health education strategies reaching this goal are inspired by active methods and rely on students' interest as much as their involvement in the learning process. However, there is a gap between the change initiatives in health education and how they are implemented in schools, mainly concerning changes in teaching practices. Socio-scientific issues (SSI) are open-ended, complex and controversial questions dealing with multidisciplinary aspects (i.e. scientific, economic, politic and social) (Sadler, 2011). We wish to see how Science and Technology teachers engage themselves in working with a SSI in class to break up with lecture-based teaching and to promote informed decisions making skills among students. We will rely on Engeström's expansive learning framework and the Change Laboratory Methodology (Virkkunen & Newnham, 2013) to better understand the emerging contradictions and the actions teachers have to take in order to overcome them.

**Format:** Poster

# Dialectical processes in Children's Negotiation in Play Activity. Introducing the notion of Negotiagency (134)

Mimmi Waermö *(Stockholm University)*

I will present the findings of my thesis (Waermö, 2017), which is based on three articles (Waermö, 2016a, 2016b, 2016c). The research question is: What are the mechanisms in dialectical processes of collectividual action and collective object transformation in children's play activity?

Observational data reporting on 10-11 years old primary school children's breaktime play was analysed within a CHAT framework. Play is referred to as playfully accomplished activity (van Oers, 2012, 2013, 2014). Analytical tools were the conceptualization of the dynamic of demands and motives (Hedegaard, 2014), the notion of micro-adjustment (Zittoun, 2009, 2014), the principle of double stimulation (Vygotsky, 1997), and the notion of the collectividual (Stetsenko, 2005, 2008, 2013). The micro level mechanisms in dialectical processes of collectividual action and collective object transformation are unpacked. Negotiation of the hierarchy of demands, of rules and of involvement discerns as core mechanisms in dialogically emerging processes. The children's negotiation is a continuous elaboration of the conditions to establish and maintain boundaries of playfully accomplished activity. The notion of negotiagency is introduced, uncovering that breaktime play literacy does not occur in the children's minds apart from social interaction but develops in and through negotiation. Negotiagency refers to collectividual agency for negotiation as transformation. It draws upon an understanding of negotiation not solely in terms of social interaction but as dialectical exchange as well as the fundamental mechanism in the emergence of agency. The dialectical processes of collectividual action and collective object transformation in play activity are enabled through negotiation.

**Format:** Paper presented in a Paper Session

# "Aprendí que puedo hablar/I learned that I could speak": Examining identity processes that shape the development of personal and public youth voice in Youth Radio Arts for immigrant youth

Dana Walker *(University of Northern Colorado Professor, Culturally and Linguistically Diverse Education)*

This paper examines identity processes that contributed to the development of personal and public voice among immigrant youth participating in a year-long Youth Radio Arts program. I focus on the semiotic work involving identity constructions engaged by youth through the use and production of cultural elements such as a youth feature story. As a material artifact, a feature story can be used to develop connections among different spheres of experience, such as home, peer groups, and school, when class discussion supports these kinds of explicit connections and class projects promote semiotic work (semiosis) on the part of students. The meaning making and identity work undertaken through the use and creation of cultural elements in the program created spaces for containing and transforming feelings, identities, and exploring alternative experiences through imagination. To understand how resources for identity development afforded within the program were appropriated and transformed by the individual-within-the-collective, and how identity processes become consequential for individual learning and development, I combine elements of interactional ethnography (Putney et al., 2000) and sociocultural psychology with a semiotic focus (Zittoun, 2006). This paper examines identity processes through the case of Tania and her radio feature story entitled "Teen Views of Sex." Analysis of the production process and content, supported by interviews and other ethnographic data, illustrates significant identity work in relation to the community. Work on the feature story led to a transformation in Tania's relationship to herself, as well as to others, to discourses and practices and to objects of knowledge. These identity relocations became real through the acknowledgment of others in the class through public critiques, public showcases, and the media when KGNU selected their feature story for broadcast. The identity shifts discussed in the paper reveal participatory processes that allowed her to express, and importantly, to be acknowledged by others for core values that were consonant with her home community, creating continuity among spheres of experience among home and the program and, by association, school.

**Format:** Paper presented in a Symposium (151)

# Dialogue of hopes and desires: Joint exploration of possible selves and activities in dementia care (330)

Ryoko Watanabe *(Waseda University)*

Bakhtin's theory of dialogue indicates that the human mind has a root in sociocultural communication and is constructed by the relationship between self and others (Wertsch, 1991). Although the significance of dialogue has been discussed in care settings (Leiman, 1998; Rober, 2005), little attention has been given to the dialogue between persons with dementia and the therapists, especially focussing on their voices as active responses to others in creating a sense of self and the therapist's role as a co-author of their voices. To examine this point, the following questions were addressed: 1) What kinds of voices are created in care sessions? 2) How do persons with dementia position themselves with respect to the voices? 3) What kinds of professional skills and knowledge are used by therapists? The data were collected from interviews with one experienced occupational therapist and through observations of his care sessions with two female persons with Alzheimer's disease (AD) in a Japanese nursing home for 25 days. Their interactions were described and qualitatively analysed. The result indicated that the therapist introduced multilevel voices towards the persons with AD, such as voices of the self, of actual others, and of imagined others. The persons with AD actively and emotionally responded to the voices, jointly created possible and positive selves, and could learn therapeutic activities that they were not capable of before the sessions. The therapist intentionally used the voices as a tool for therapeutic engagement to generate the persons' desire for the therapy, others, and themselves.

**Format:** Paper presented in a Paper Session

# The process of subjectivation and becoming a person (034)

Eduard Weiss *(Centro de Investigacion y de Estudios Avanzados del Instituo Politecnico Nacional)*

I built my article on Weiss, E. (2015). Más allá de la socialización y sociabilidad: jóvenes y bachillerato en México [Beyond socialization and sociability: Youth and high school in Mexico], *Educação e Pesquisa, 41*(5), 1257-1272. The article presents my line of research that focuses on the double condition of being a student and being young, as well as on the condition of being an adolescent and the son or daughter of a family. I use the findings of this line of research to establish a discussion on two concepts (the concept of socialization prevalent in studies on students, and the concept of sociability prevalent in the field of studies on youth), while proposing a third way: to focus on the concept of subjectivization, understood as values and norms that become appropriated (Chartier, 1991; Rockwell, 2005); a process of reflection (Giddens, 1997), from self on different demands of others and my position (Mead, 1934); a process of emancipation from dominant norms and values (Martuccelli, 2007) and the development of my tastes, interests and capacities (Taylor, 1996) which build the agency to decide (Kierkegaard) and do things (Bruner, 1990). Beyond the article and more recently – while studying processes of school dropout – I consider that we should also recover the old pedagogical concept of educating "persons" understood as beings with rights but also with obligations.

**Format:** Paper presented in a Paper Session

# Considerations about category subjectivity in research focusing on teacher training

Oliveira Wellington *(University Teresa D'Avila)*

What is the potential of category subjectivity to critical collaborative research methods? Trying to answer this question, we take critical position to explore dialogue with cultural-historical psychology, assuming the importance of carrying out critical collaborative action researches involving the university and schools as a fundamental requisite in the process of professional development of teachers understanding dialectics as the form of constructing historical reality; where collaborative solidary, critical, intersubjective behavior is valued in the context of practice. The impact that the former has on educational research is very strong because it will influence changes in the theory, methodology and practices. The classroom is not simply a scenario related to the processes of teaching and learning, it appears as a constituent of all the activity there developed. The classroom generates new meanings that are inseparable from the stories of people involved, as well as the social subjectivity of the school in which elements appear in other social spaces of their own subjectivity. This presentation aims to shift the conversation about the subjectivity to improve critical collaborative practices on education. The discussion is divided into two parts. In the first, a discussion is made about how critical collaborative research builds up a new social reality at school and how it influences the construction of the subjectivity of students and teachers. In the second part, the implications brought by such situation of learning and development for issues like democracy, citizenship and ethics are discussed.

**Format:** Paper presented in a Symposium (153)

# Hope as fantasy in action (089)

Ditte Winther-Lindqvist *(DPU, Department of Education, Aarhus University)*

Drawing on Vygotsky's theory of imagination I am proposing a phenomenology of hoping as fantasy in action. Based on interviews with teenagers who are living with a somatically ill parent, I suggest that hoping plays a central role in the teenager's attempts for upholding a conduct of everyday life. Hoping is an imaginary backdrop, against which events, demands, and moods are evaluated, and thus the fantasies involved in hoping becomes constitutive for experiencing. I apply Vygotsky's experiential view of imaginary activities and explore the status of the "imagined" and the relation between imagining and the real, through the empirical material on hope. This work illustrates a synthesis between cultural-historical and existential-phenomenological theorizing. This is done in order to illustrate that hoping is a meaning-making effort that - in the event of parental illness - protects the hoper from despair.

**Format:** Paper presented in a Paper Session

# Using cultural-historical activity theory to explore trauma among refugee populations in Europe (163)

Gail Womersley *(University of Neuchatel)* & Laure Kloetzer *(University of Neuchatel)*

Europe is living through a refugee crisis of historic proportions which has now become one of the continent's defining challenges of the early 21st century. Not least among the difficulties are the multiple traumas faced by this population, which constitute severe threats to human, social, cultural, and community development. The psychological impact of atrocities endured by refugees and asylum seekers populations is clear, with the literature reporting significantly high prevalence rates of post-traumatic stress disorder (PTSD) among this population. However, there have been significant concerns raised in the literature over the relevance and cross-cultural validity of PTSD as a diagnostic construct. Therefore, consistent with major Vygotskian principles of interactive individual–societal development via the creation of meaning in everyday activities, this paper presents the results of a qualitative investigation into experiences of trauma among refugees and asylum seekers. We will present the results of a 2-month research intervention with NGOs addressing the refugee crisis in Athens, Greece - which included both participant observation and qualitative, in-depth interviews with staff and beneficiaries guided by cultural-historical activity theory. The analytic focuses is on historicity and context as well as social and material environments in an attempt to go beyond an 'atomistic' or individualised framing of psychological difficulties – a particularly relevant consideration for understanding trauma among refugees and asylum seekers in light of the multiple and arguably ongoing environmental stressors with which they are faced as they negotiate material ecologies which both enable and constrain their human activity.

**Format:** Paper presented in a Paper Session

# Cultural values in the military: Trajectories of moral development in Brazilian army education (039)

Daniela Wortmeyer *(Brazilian Army / University of Brasilia)* & Angela Maria Uchoa Branco *(University of Brasilia)*

In this paper, our aim is to analyze how individual moral development is affected by military professional education, based on case studies from a qualitative longitudinal research that took place in the Brazilian Army Military Academy. From a cultural-psychological perspective of semiotic processes, we address moral values as hypergeneralized semiotic fields of normative character, deeply rooted in the affective-motivational system of individuals, which develop within meaningful experiences culturally nourished. Our perspective emphasizes the active, constructive role of the individuals, and stresses the mutual, coconstructive quality linking social practices to cultural values. Focusing on the moral socialization process of career combatant commissioned officers of the Brazilian Army, we shall discuss how specific meaningful experiences, provided to support the institutional semiotic mediation regarding military values, operate to promote changes in individual development, framing a particular way of feeling and interpreting the world.

**Format:** Paper presented in a Working Group Roundtable

# Concept of time and future in education in the context of Vygotsky's cultural-historical theory (256)

Tatiana Yakubovskaya *(Moscow State Pedagogical Univeristy)* & Tatiana Kovaleva *(Moscow State Pedagogical Univeristy)*

The article discusses the problem that occurs in a context in relation to issues of cultural-historical theory about how possible to work with "future" in today's educational practices.

1.The cultural-historical theory is based on the idea of development and is focused on working with the concept of future in teaching practice. In the study of tool-mediated action are described the mechanisms of sign mediation of action, planning function of speech, symbolic operations, trial action that shape the child's independence from the immediate situation at present, the possibility of free action by the "the sketch of the future."

2. Analysis of the situation in education shows that the issue of Time and the Future is a major historical challenge for the educational practice because the idea of education originally has a timeless character. And education as a social institute focused on the broadcast of "eternal values" cultural norms and activities.

However, such global educational trends as the individualization of education, project-based approach in education, widespread foresight-culture and practice of development the thinking about the future or the future-thinking, point to the need to deepen attention to those aspects of the cultural-historical theory that opens issues working with the concept of Time in the process of development and especially the issues working with the Future in education.

The analysis of the pedagogical experience of Russia and Finland for the development of future-thinking, especially in the development of individual educational programs and the organization of educational and professional orientation for high school students.

**Format:** Paper presented in a Paper Session

# Reverberated dialogue to understand the senpai/kohai system (080)

Yoshinori Yamada *(Osaka Sangyo University)*

This study employs reverberated dialogue to understand Japanese hierarchical social relations, focusing on the following three concepts: Bakhtin's voice, Wenger's cultural transparency, and Lave and Wenger's continuity-displacement contradiction. While these theoretical perspectives differ from each other, they are crucial for exploring the possibility of a multivoiced ontogenetic dimension. First, I introduce Bakhtin's concept of voice, according to which an utterance is produced by a speaking subject with a specific viewpoint. Second, I discuss Wenger's concept of cultural transparency, which refers to the horizon that delimits the surface of an area of visibility. This transparency emphasizes the relational and perspectival character of accessing in practice and is useful for grasping the culturally mediated nature of existence. I use this perspective to show that cultural transparency can be associated with the ontological perspective of voice. Third, I explain Lave and Wenger's continuity-displacement contradiction, which describes a socially constituted system of differentiated ways of belonging and being within a community. The continuity-displacement contradiction also refers to the different ways newcomers and veterans establish and maintain identity conflicts and generate competing viewpoints on the practice and its development. In particular, according to social hierarchy, multiple voices would cross with each other.

Finally, I analyze Japanese social relations and the dialogue between senpai and kohai within the framework of reverberated dialogue. I argue for both the potential and the limitations of using reverberated dialogue to improve upon Bakhtin's concept of dialogue.

**Format:** Poster

# Development of positive emotional experiences of adolescents in different social groups using art-based approaches (366)

Elena Yangicher *(Moscow State University of Psychology & Education (MSUPE))*

The field of development of positive emotional experiences in adolescence is of increasing relevance within the context of the rise in negative social manifestations, changes in social situation of development which becomes a source of mass frustration, contributing to the growth of emotional disorders.The aim of this research is to formulate a model of development of positive emotional response of adolescents from socially advantaged and disadvantaged groups using art-based approaches (specifically art therapy) combined with traditional psychological tests and modeling experiments.

The study draws on the concepts of L.S. Vygotsky about the peculiarities of adolescents' mental development and the role of this period in the formation of personality, as well as various aspects of the development of affect and needs in childhood (L.I. Bozhovich). The study considers the position of mental states as a particular psychological category and their (states) integrating function, the conception of the regulation of mental states (N.D. Levitov); theoretical and experimental development for the diagnosis, management, and directed formation of the mental states (Y.B. Nekrasova); and the concept of experiencing ("perezhivanie") as described by F.E. Vasilyuk.

A range of methods, combining quantitative and qualitative approaches were used in the study: video observation (outlined in the protocols); mathematical statistics; tests and modeling experiments.Experimental studies were carried out over a duration of five years within three different types of schools in the region of Moscow (n= 203, aged 13-15). On conclusion of the experimental studies the author`s program was implemented in a number of educational institutions in Moscow and other regions in Russia.

Findings showed that the psycho-correction of adolescents' negative emotional experiences (from both socially advantaged and disadvantaged groups) was possible by intervention directed at the regulation of the mental states where the emotional reaction took place, through targeted art-based approaches (specifically art therapy methods). The course of action directed at the mental states led to the modification, substitution and retention of negative to positive mental states, which resulted in the restructuring of the emotional response and led to long term changes in the stereotypical reaction.

**Format:** Paper presentation on PhD Day

# Researching the workshops for socially excluded youth

Sirpa Ylimaula *(University of Oulu)*

Unemployed young people are a challenging problem worldwide. In OECD countries there are 17% of young people not in Employment, in Education or in Training (NEET). Studies on social work services for excluded youth have highlighted the multidimensionality of the youth problems. The question is how to improve the tools for collaborating on complex problems. I describe a participatory research with relation to workshops for NEET youth. The aim of the workshops was to strengthen the participants' skills and capabilities in everyday life and help them to find education and/or employment. In this paper, I analyse participants' descriptions of the changes that occurred during the workshops. The data has been collected by interviewing the participating youth (n=30), as well as the social workers, rehabilitation counsellors etc. who were in charge of the workshops. Also professionals from neighbouring units with whom the counsellors were collaborating were interviewed. In the analysis, particular attention is given to expansive learning and boundary crossing (Engeström, 2010), relational expertise (Edwards, 2017), as well as to the new tools (Seppälä & Toiviainen, 2017) that have been developed during the workshops. I present tentative results of this analysis, and discuss the relevance of cultural-historical conceptions in researching and developing communities that support NEET youth in Northern Finland.

**Format:** Paper presented in a Symposium (253)

# The acquisition of Hangul writing system among Korean language learners in a multilingual context (304)

Ziyeun Yoo *(McGill University)* & Michael Hoover *(McGill University)*

The number of allophone immigrants to Canada, whose mother tongue is neither French nor English, has increased over the last several decades. They often choose to preserve their heritage language as a cultural integration strategy within the reality of the larger French and English communities. However, allophone immigrant students face contradictions between tools and rules in the new cultural context as they learn their heritage language. Viewed with a Vygotskian lens, written language provides the child with a new set of psychological tools, meaning that teaching and learning writing should be dealt with differently from spoken language. Korean immigrant students are more likely to face contradictions due to the distinctive writing system of Korean. This case study of a heritage language class aims to understand how second language learners acquire the Korean writing system as a set of psychological tools situated within the multilingual context of Montreal. Using CHAT as an approach to learning writing requires learners to engage in literacy activities so that teachers and parents understand students' writing in response to the demand of their discourse communities. Based on this perspective, our analysis focuses on three central contradictions faced by second language learners of Korean: (1) that between the Korean writing system and the Latin alphabet, (2) that between Korean and French word meaning, and (3) that between the Korean and French grammatical marking systems.

**Format:** Poster presentation on PhD Day

# Proposing change laboratory method to specific ecological contexts. What kind of adaptations and results? (071)

Solène Zablot *(University of Paris Descartes)* & Aurélie Beauné *(University of Paris Descartes)*

This communication aims at showing methodological proposals developed during two Ph.D. researches which were interested in adults and vocational training. The first has been defended in 2015 and the second is being finalized.
In both, the theory of expansive learning and the change laboratory methodology (Engeström, 1987) were put to work in two specific contexts:
• language training for migrants in order to prepare adults to live in French society (Beauné, 2015);
• vocational training for vehicle maintenance in order to pass the Baccalaureate (Zablot, ongoing).
These contexts' specificities and those of doctoral researches have led us to propose different adaptations to change laboratory interventions, for example by mobilizing written synthesis or social psychology adaptations to reduce the feeling of responsibility (Darley & Latané, 1968) during focus-group restitution (Carey & Martha Ann, 2012). How do these adaptations have influenced the results?
We recognized, in these two researches cited, that the organizations in which we intervened could not be engaged in a process of innovation generally supported by change laboratory methodology. In contrast, we could raise the issue of spontaneous development of activities analysis: which spontaneous transitions can be observed? How to characterize spontaneous development in the activity systems which are observed? How do happen spontaneous change when it is weakly guided?
These open questions about the results obtained are already put to work with other communities, especially in the ReVEA project through the observation of individual and collective teachers' work when they want to create new resources for learning.

**Format:** Paper presented in a Paper Session

# Gesture-mediated math instruction: exploring the path from associative to deliberative thinking

Daniel Zalles *(SRI International)*, Charles Patton *(SRI International)*, Susan Courey *(Touro Graduate School of Education)* & Elina Lampert-Shepel *(Touro College)*

This presentation will discuss research in progress on how mastering gesture-mediated math problem solving can contribute to students' development from associative to deliberative thinking. As a team of researchers with varied backgrounds in educational assessment, mathematics, special education, and cultural-historical psychology, we came together to explore gesture as a tool to improve mathematical comprehension. As we narrowed our topic to only include how gesture, specifically tracing of instructor gestures by students in the late elementary-early middle school curriculum, influences associative thinking during problem solving, we realized the theoretical foundation of our research is fragmented over disparate fields and dimensions of gesture research studies. In response, first, we established an ontology or framework for mathematical gesture studies delineating concepts, information, and universal ideas within the field of mathematics 8 that enabled characterizing research questions and methodological attributes across studies. Our framework provides a common set of constructs for defining varied uses of gesture, for culturally, linguistically, and academically diverse students. With this systematization comes an archive of effect sizes contributing to the maturation of the framework. Preliminary findings suggest most empirical studies examining gesture and mathematics utilize a Vygotskian sociocultural theoretical framework and include embodiment, gesture, by a teacher and student in varied classroom. In turn, we designed and implemented a small study grounded in the common use of gesture as a meditational tool for teaching and learning. Specifically, we examined the impact of tracing instructor gestures by students with mild cognitive impairments in the general education classroom on their ability to solve middle school mathematics problems that require deliberative rather than associative thinking.

**Format:** Paper presented in a Symposium (177)

# Between marginalization and participation: Knotworking in the social situation of development of young people at risk of social exclusion (181)

Beata Zamorska *(Collegium Da Vinci)* & Przemyslaw Gasiorek *(adjunct professor Adam Mickiewicz University in Poznan, Poland)*

Our paper draws on Vygotsky's Zone of Proximal development and Leontiev's Activity Theory to discuss the social situation of development of young people at risk of social exclusion as studied through the identification of the individual's activity system and the activity system of institutions in which young people stay (school, Educational Facility, club). We explore changes in the position of the adult as an interaction co-participant that opens the space of shared activity. The aim of the club (in which we implemented our project over one year in a big city in Poland) was to produce a social environment underpinned by dialogic interactions facilitating understanding of new social meanings and acquisition of competences for creating knots of activities in society. Creating the knots, we took into account the scope of knots of activities and social activity, the degree of hierarchization, and the overall structure. We expanded their scope by starting cooperation in new social spaces. The main results of our intervention research were: creation of knots of activities that promote meeting the needs of all the parties involved through dialogic interactions; development of various types of the young people's agency (from recipients to co-creators) through changing the system of social activities; and transformation of the existing knots of activities of the young people and of activities of the school, the Educational Facility, the local community, and parents through producing a setting of horizontal collaboration.

**Format:** Paper presented in a Working Group Roundtable

# Lev Vygotsky's principle "One Step in Learning Represents a Hundred Steps in Development": theory and practice (407)

Viktor Zaretskii *(Moscow State University of Psychology and Education (MSUPE))*

The report is devoted to the evolution of Vygotsky's understanding of child development. His assumption that one step in learning may mean one hundred steps in development is as important as the two other key postulates of the cultural-historical theory: the principle that learning precedes development and the concept of zone of proximal development. The authors provide a rationale for utilization of these assumptions in the practice of development-facilitating psychological and educational assistance. A mechanism of this learning-development relationship is hypothesized. The report outlines a multidimensional model of the zone of proximal development illustrating the above mechanism. This model is one of the conceptual tools of the Reflection and Activity Approach helping children overcome learning difficulties and promoting their development.

Having given the account of how they proceeded "from the idea to the problem" and "from the idea to the mechanism", the authors provide case studies showing how this mechanism allows working with learning difficulties to trigger simultaneous improvements in multiple developmental dimensions. There are different examples how this mechanism works: the experience of running special Summer Schools for children with learning difficulties, implementing the "Chess for General Development" Project, and assisting orphaned children with severe somatic conditions. A case study of a female college student displaying signs of the learned helplessness syndrome is presented. The authors infer that Vygotsky's idea of a specific relationship between learning and development may be of fundamental theoretical and practical value, especially for working with children with special needs.

**Format:** Poster

# Development-facilitating educational, psychological and psychotherapeutic help in overcoming learning difficulties (408)

Viktor Zaretskii *(Moscow State University of Psychology and Education (MSUPE))* & Alla Kholmogorova *(Moscow State University of Psychology and Education (MSUPE))*

The number of children who experience learning difficulties has been increasing steadily. From the perspective of the cultural-historical psychology, learning difficulties – unless they are overcome – result in a blockade of the overall developmental process. Furthermore, these difficulties are interrelated. The cultural-historical approach views various types of help as facilitation of development by various means.

In the course of helping, the epicenter of the blockade may shift and a helping professional needs to change tools so as to break through this blockade and establish conditions for a child's further development. The ways to break the blockade may relate to working with personal problems (persistent failure and related learned helplessness; passive or negative attitude to learning; believing learning to be useless etc.) or with inappropriate modes of action in specific areas of learning. These issues represent various dimensions and epicenters of the specialist's practice.

Correspondingly, practitioners may feel the need for developing a specific counseling approach to help children overcome learning difficulties based on an integral understanding of various developmental dimensions. The Reflection and Activity Approach (RAA) meets this need. RAA, which relies on the cultural-historical understanding of development, has been evolving over the last two decades. As a counseling approach, RAA looks for integrating knowledge in the fields of psychotherapy, education, and developmental psychology. The research aiming at combining RAA, Cognitive Behavioral and Existential Psychotherapies is currently underway. The authors' presentation uses cases from the practice of counseling children with learning difficulties to illustrate feasibility and heuristic power of this combination.

**Format:** Paper presented in a Paper Session

## "Vygotsky's notebooks. A selection", edited by Ekaterina Zavershneva and René van der Veer (2017). Presenter: V. Zaretskii (379)

Presented by: **Viktor Zaretskii** *(Moscow State University of Psychology and Education (MSUPE))*

This is a fundamental edition of previously unpublished manuscripts that summarizes the results of the first systematic study of Vygotsky's family archive. The notebooks and scientific diaries gathered in this volume represent all periods of Vygotsky's scientific life. The volume begins with the earliest manuscript found in the archive, entitled "The tragicomedy of strivings" (1912), and ends with his last note, entitled "Pro domo sua" (1934), written shortly before his death. The notes reveal unknown aspects of the eminent psychologist's personality, show his aspirations and interests, and allow us to follow the development of his thinking from inside, thus showing its inner dynamics. The scientific diaries reflect in particular the plans that Vygotsky could not realize during his lifetime (e.g., the theory of emotions, a general psychological theory of consciousness, etc.), and clarify a number of questions that suggest themselves while reading his published works.

The editors of the book will hold a presentation showing photographs from Vygotsky's family archive.

**Format:** Book presentation + Presentation in a Paper Session

# The empirical study of attitude to educational activity among students of different ages (405)

Yuriy Zaretsky *(Moscow State University of Psychology and Education (MSUPE))*

We investigated an attitude to educational activity among students of different ages: children of primary school, teenagers, senior pupils. We used questionnaires, sentence completion tests and case study. Also, we made the original questionnaire "Sense of Agency".

Sense of agency is considered as an active and awareness attitude of a student to education. This understanding is based on theoretical concepts of the cultural-historical psychology of L.S. Vygotsky about the connection between education and development, on child-adult collaboration, and also on the experience of the practical help to the students in overcoming learning difficulties on the basis of reflective-activity approach.

331 students completed the questionnaire and other measures. Research data allows to draw conclusions about the peculiarities of the attitude of students in relation to education, and its age dynamics. Factor analysis supported the use of three–factor solution, identified three scales describing different types of relationship to education: the sense of agency, the object attitude, the negative attitude. Additional analysis revealed another type - passive attitude of some students. It was discovered that a degree of sense of agency decreased from younger school age to senior school and severity of negative position increases.

We found a link between the educational environment and severity of sense of agency. Additionally, we described special arrangements for germination and developing a sense of agency such as: child-adult collaboration, cooperative activity in Zone of Proximal Development and child's self-reflection about its way of activity and its attitude.

**Format:** Paper presented in a Paper Session

# Childs sense of agency and its development in overcoming learning difficulties (406)

Yuriy Zaretsky *(Moscow State University of Psychology and Education (MSUPE))* & Viktor Zaretskii *(Moscow State University of Psychology and Education (MSUPE))*

One of the most important principles of cultural-historical psychology is the special connection between learning and development. Learning is considered as going ahead of development. And the most important conditions for this process are: child-adult collaboration, cooperative activity in ZPD and interiorisation experience of cooperative activity. The thing that a child can do today in collaboration with an adult, tomorrow he will be able to do it by himself.

The situation of overcoming learning difficulties has a special resource for development. In collision with learning difficulties, a child needs adult help. If a child gets adequate support, his\her arsenal of modes of action is expanded.

Child-adult collaboration is a very special condition of child development when it faces learning difficulties. It helps a child to become the agent of activity and the agent of reflection.

Our empirical studies conducted on children of different ages, and enrolled in different educational environments have shown that the severity of sense of agency is related to the high learning motivation, value of learning and the general emotional well-being.

The experience shows that the practice of counseling in children to overcome learning difficulties, initiation and support child's sense of agency significantly expands the possibilities of development in this activity. The active engagement and awareness attitude to their own challenges and ways to overcome them help the child to stop being a victim of circumstances and become an active agent of self-development. Thus, the idea of Vygotsky that "One step in learning can mean a hundred steps in development" becomes reality in practice.

**Format:** Paper presented in an Interactive Paper Session

# Chinese children's home-kindergarten literacy experiences in Aotearoa New Zealand

Bo Zhou *(University of Auckland)* & Janet Gaffney *(University of Auckland)*

Children's early literacy development has been studied extensively in the past three decades. Kress (1997) stressed the meaning of literacy as the actions of children and adults in communications in social cultural systems. In a similar vein, Clay (1998) stressed the importance of young children learning how to communicate with family members, peers, and others in different settings. From these perspectives, children's communication with others in various settings and cultural communities is valued in early literacy development. Researchers have found that various contexts (i.e., cultures and settings) provide different opportunities for children's literacy learning, which may lead to continuities and discontinuities in their engagement in literacy activities across settings (Barbarin, Downer, Odom, & Head, 2010; Schick, 2014). Currently, there is a dearth of research about Chinese children's literacy experiences at home and kindergarten settings in specific contexts, such as Aotearoa New Zealand. Accordingly, this paper explores Chinese children's experiences in early literacy activities at home and in kindergarten in Aotearoa New Zealand. Specifically, we explore how children's home literacy experiences mediated their language and behaviours in activities in kindergarten, and vice versa, and other influential factors of mediating behaviors. This research is based on two theoretical perspectives on children's early literacy learning: emergent, which considers children's learning as a dynamic and on-going process beginning from birth; and sociocultural, which values the influence of social and cultural practices on literacy learning. Third-generation activity theory (Engeström, 2014), aligned with activity systems (Engeström, 1987), was applied as the framework in this study. The two dimensions in third-generation activity theory: up and outward; and down and inward, helped the researchers identify the similar and different activities children engaged in and the potential influence children's previous experiences on their participation in any literacy activity later in and across home-kindergarten settings. This presentation will share literacy experiences from two 4- to 5-year-old Chinese children living in Auckland, Aotearoa New Zealand. Data sources were collected from these two children's narrative tasks, Preschool Word and Print Awareness (PWPA) assessment, portfolios and artefacts, and interviews with their teachers and parents over 3 months. Preliminary findings highlight that children engaged themselves in literacy activities such as daily conversation and reading with parents at home, and singing, book reading, early drawing and writing, artwork and role play with teachers and peers in kindergarten. Furthermore, language and behaviour were mediated by previous literacy experiences in child-initiated activities. Parents, teachers, peers and instruments that children used in activities also contributed to the mediation of learning.

**Format:** Paper presented in a Symposium (066)

# Studying the meaning of teaching: One teacher across four years (320)

Michelle Zoss *(Georgia State University)*, Charity Gordon *(Georgia State University)* & Stephanie Loomis *(Georgia State University)*

With this presentation, we hope to foster discussion about changing conceptions of teaching, what it means to use research interviews as spaces for reflection, and the role of the arts in spaces that are increasingly reluctant to include anything that does not fit within narrow parameters for performance and assessment. Ours is an ethnographic case study framed on notions of the social construction of meaning.  This study builds on the tradition of empirical research with novice teachers to investigate how they develop concepts of teaching—we extend these studies with an examination of a teacher during her first four years of teaching in a middle school. We wanted to know what teaching meant for an English language arts teacher with a self-identified goal of integrating visual and dramatic arts. Bounding the case to one teacher allowed us to focus on the teacher's conceptions of teaching English over time and within one school. Findings indicate the following: the interviews were a space to imagine and evaluate teaching; time was a tool for attending to the nuances of meeting both the students' needs and her own; relationships with the first author as researcher and teaching team members provided resources for supporting her professional goals; and there were clashes of expectations about what the teacher wanted to accomplish and what other authority figures expected her to do.

**Format:** Poster

**ABS (à determiner)**
**Monique Verhoeven, Bonne Zijlstra, Monique Volman**
*University of Amsterdam (Amsterdam, Netherlands)*

**Title:** A comparative case study on the development of learner identities in Waldorf, Montessori and traditional education in the Netherlands

**Abstract (max 350 words):**
Students, once they come to be understood by themselves and their teachers as low achieving or bad behaving, often find limited opportunities to reposition themselves as better learners. When these understandings of students as learners are inflexible, this may cause education to be less inclusive: students could be given up on not only by their teachers (see e.g. Wortham 2006), but also by themselves (Vianna & Stetsenko 2011). Persistent positionings of students as bad learners may thus result in excluding, yet durable and internalized learner identities: (often ability-related) self-understandings as learners that cause students to disengage from their education.

In this paper, departing from social practice theory (Coll & Falsafi 2010; Vianna & Stetsenko 2011), an ethnographic multiple case study is presented that aims to examine, how school and classroom processes play a role in the development of secondary school students' learner identities. We add to existing research in two ways: Unlike many existing studies in the field (see e.g. Wortham 2006), we combine the analysis of classroom observations *and* student interview data. Furthermore, whereas previous research on this topic generally concerns single classroom case studies (Ibidem), we compare pre-vocational and pre-university classrooms (N=6) from three different schools. Six students per classroom are interviewed for individual case studies. In employing this research design, we expect to expand insights on the interplay between formal educational processes and mechanisms on the one hand, and the negotiation and development of students' learner identities on the other. Finally, we hope to discuss with fellow ISCAR 2017 session members how this interplay might be quantitatively assessed in the future.

Literature:

Coll, C. & Falsafi, L. (2010) 'Learner identity. An educational and analytical tool'. *Revista de Educación*, 353, 211-233.
Vianna, E. & Stetsenko, A. (2011) 'Connecting Learning and Identity Development through a Transformative Activist Stance: Application in Adolescent Development in a Child Welfare Program'. *Human Development*, 54, 313-338.
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