Background Statement
The research project is funded by South Africa’s National Research Foundation (NRF) under the *Finland-South Africa Science and Technology Research Cooperation Programme*. The project-funding period is 2013 to 2016.

The project proposal was initially designed as a comprehensive collaborative project between the South African research team at the University of Cape Town, led by Dr. A. E. Muthivhi and a team of researchers at the University of Oulu, Finland led by Professor S. Järvelä. Unfortunately, the Oulu research team subsequently withdrew their participation because their funding agency in Finland did not award a grant in support of their proposal.

As a result, the South African project proposal was subsequently modified—upon approval by NRF, to focus on the specific aspects of the original project for which the South African team already had the capacity to accomplish on their own.

Project Aims and Objectives
This research project is grounded on the theoretical postulation that children’s development may be challenged by a conglomerate of factors in their sociocultural contexts of learning and development and that the disjuncture between formal and informal contexts of children’s learning and development results in particular challenges that affect the children and youth’s competencies.

The project therefore aims to contribute theoretically sound knowledge of pedagogical processes and the contextual conditions that potentially enhance or hinder children’s efficacy and competency acquisition and development.

Hence, the formal and informal settings of children’s learning and development in the respective sociocultural contexts of Finland and South Africa will be examined, so as to explore ways in which school children’s capacities and competencies develop during
participation in the activities of schooling and society, so as to uncover the modalities of formal, classroom learning and developmental activities; vis a vis those of everyday, out-of-school activities, through which development occurs. The regulatory conditions and practices under which; and through, which wellbeing, competency, capacity, as well as learning and developmental efficacy develops will be identified and; through this novel knowledge and understanding, innovative pedagogical models and tools for supporting children’s development of competence will be created.

The project, therefore, has four main objectives; namely:

(i) Building strong theoretical grounding and conceptual analysis of the development of competence;
(ii) Exploring the developmental conditions of competence in formal and informal contexts of school and out-of-school settings;
(iii) Exploration of uses of Information Technology (IT) in school and in children’s everyday-life activities as constituting an instance of historically new forms of cultural tools for children’s learning and development that have important implications for understanding the acquisition and development of competency (cf. Järvelä, Veermans & Leinonen, 2008; Järvelä, Hadwin & Järvenoja, 2011)
(iv) Development of pedagogical models that connect formal school learning and spontaneous, everyday-life activities to assist children’s functioning as active participants during classroom learning.

Rationale
The theory of learning and development in changing cultural contexts developed by Lev Vygotsky at the beginning of the twentieth century when much of the world had been going through rapid industrialization that was accompanied by associated changes in social organization and human consciousness and functioning continues to resonate with the enormous changes that today’s world is going through. Rapid changes in sociocultural practices in contemporary societies continue to exert pressure on ways in which formal schooling and the activities of classroom teaching and learning could be organized for children’s learning and development.

Notions of children’s competence and efficacy are constantly evolving with the associated changes in valued social practices and these changes demands that we constantly review the activities; both within formal schooling and outside of the formal learning situations of classroom activities, to capture the practices that dominate both formal schooling and everyday learning situations on the one hand, and their potential consequences of children’s learning and development on the other hand.

Therefore, the theory of human competence—let alone that of children’s competence, and; indeed, the theory of human development, is open for constant revision and further elaboration, especially in the face of societal transformation across cultural contexts, which itself has no teleological end. In the words of Stetsenko, nothing is final and theory itself continues to be up for grabs (Stetsenko, 2010; 2009); up for new extensions to reflect constant shifts that characterize human social life and social practice. This research therefore seeks to explore the potential of theoretical concepts of self-efficacy and competence in order to define experiences of confidence and success in the two, diverse cultural contexts of Finland and South Africa—at, both, the theoretical and empirical levels.
Cultural-historical conditions and practical activities that constitute the learning and developmental conditions of children in the respective contexts of South Africa and Finland, two fundamentally different sociocultural contexts which; nonetheless, could benefit immensely from each other’s experience and achievements, are fundamentally different. Finland has one of the most successful educational systems in the world; having constantly been pitted at the top of the list of best performing systems globally in recent international tests (cf. Sahlberg, 2011; TIMSS & PIRLS, 2011). South Africa on the other hand, having just come out of a racially segregated sociopolitical and education system and currently going through a complex and difficult process of “nation-building”; including building of a potentially successful schooling system, has; on the contrary, found itself on the bottom end of the scale in similar international tests (TIMSS & PIRLS, 2011; Fleisch, 2008; Howie, et al., 2007). However, Finland has, until very recently, enjoyed an extremely high levels of sociocultural homogeneity that had been posited as one of its strongest feature in the organization of its schooling and, indeed, in the performance successes of its schooling system. South Africa, on the other hand, would qualify as one of the most demographically diverse systems of schooling in the world.

The two countries also provide widely different socio-economic and cultural-historical contexts. South Africa is a developing country with a population more than ten times larger than that of Finland. However, Finland is a developed, economy supported by manufacturing industry; mainly wood, metals, engineering, telecommunications and electronics. Trade is important and exports equals about one-third of the GDP while per capita income is more than four times that of South Africa (cf. World Bank, 2011-2013). South Africa is a developing country which; together with its recent attainment of political freedom from the white minority, apartheid repressive regime, has also just joined global market economy and related multinational organizations; which so much hope for “reconstruction and development” of the country, from the economic and political devastations of the apartheid regime. Although the South African economy has experienced extensive expansion since re-admission into the global market, with the ending of the apartheid regime, the economy has recently experienced enormous contraction; giving rise to various social problems such as high levels of unemployment; violent crime and labour instabilities1. As one of leading mineral resource countries in the world, the South African economy is largely based on export of mineral resources, in addition to its growing manufacturing and agricultural industries. Therefore, as a developing country, South Africa lacks an established skills base for supporting the skilled labour needs of its economy and its post-apartheid education policy reform has made this as one of its important goals which, however, still remains to be realized (cf. Chisholm, et al. 2000; Department of Education, 2002; 1997a; 1997b; 1994; World Bank, 2011-2013;Statistics South Africa, 2011).

Therefore, the socioeconomic and cultural-historical context of human practice; what Vygotsky and Luria (Luria, 1979;1976) studied as activity context of human development, is fundamentally important for understanding institutional practices that regulate human development and functioning. These practices are also to be understood as process and therefore not as product (cf. Vygotsky, 1978) and as irreducibly interwoven in the evolving logic of human social activity (cf. Stetsenko, 2009). In Finland, socioeconomic and political activity was, historically, dominated by the need to establish an autonomous state, with own language; as well as the need to transform the largely arid land into an economically productive resource and, schooling was therefore considered an important tool for achieving these goals as well as for providing skilled labour for a society that was transforming from a largely rural, subsistence-based peasantry to a modern industrialized economy that relies heaving on ongoing creativity and social ingenuity(cf. Sahlberg, 2011; Kirby, 2006). Here,

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1 Recently, South Africa experienced one of the longest mining labour dispute that has ended in massive loss of life. More than 45 people, most of them miners were, killed during protest activities.
the resource base of the economy is largely created through human socioeconomic activity that relies heavily on continued creativity that has resulted in the development of some of the leading global information technology and electronics firms. South African schooling and society, on the other hand, having just been transformed from a racially segregated economy that reserved privileges solely on the basis of race, had relied largely on the supply of cheap, unskilled workers; largely made up of the African peasantry from the Bantustan reserves. The need for the supply of highly creative, educated workforce seem to have been offset both by the apartheid political ideology, apartheid form of schooling, as well as the natural endowment of the country, which inadvertently bred the overreliance on export of raw materials that needed little investment in human capital through education. The burgeoning manufacturing industry seemed to also have following the trend set by the agricultural and mining industries respectively in regard to the reliance of largely unskilled work force. This is a precarious socioeconomic situation that South African schooling today, is struggling to grapple with as the country moves toward a more post-industrial, globally integrated socioeconomic realities. (cf. Chisholm, et al., 2000; Department of Education, 2002).

Therefore, learning and developmental contexts of schooling and everyday situations of Finland and South Africa also present diverse sociocultural practices in regard to the use of new technologies for teaching and learning (cf. Sahlberg, 2011; Department of Basic Education, 2009). Information technology presents novel forms of social practice in which children participate and through which their development takes place. These practices are also embedded in the culture of the societies in which the knowledge and skills relating to information technology takes place (cf. Muthivhi, 2014). For example, while South Africa is increasingly taking greater interest in integrating information technology into classroom teaching and learning (cf. Department of Basic Education, 2009; Hardman, 2005), Finland is already considered one of the leading country in information technology development; with innovations that have had enormous influence in the organization of the its schooling and classroom teaching and learning (Sahlberg, 2011)

Last, but in no way the least, is the factor of language of learning and teaching, which comes out very differently in the two educational contexts; though with interesting historical similarities. Finland has a historically more recent history of the developed of a language for classroom teaching and learning in comparison with other European countries (Sahlberg, 2011; Kirby, 2006), which South Africa; which has no indigenous language for classroom teaching and learning beyond the third grade, uses English and Afrikaans as languages for classroom teaching and learning, with English coming up as a more dominant language for classroom teaching and learning but with enormous challenges for classroom teaching and learning success (cf. Muthivhi, 2014; 2008). Therefore, South Africa schooling continues to experience enormous challenges in regard to language in; and for, teaching and learning; which Finland has long overcame. The possible consequences of specific, culturally-embedded forms of cognitive regularities of language within the respective schooling contexts will provide crucial insights into possible ways in which language could be developed into an effective cultural tool for south Africa children’s learning and development.
Research Questions
The research aims to address the following question:
What are the specific sociocultural practices that give rise to—and account for, children’s learning and development within the respective contexts of schooling and society in South Africa and Finland and how do these practices impact on children’s learning and development?

The following sub-questions will assists in focusing the investigation more narrowly:
1. How do children learn and acquire scientific concepts in South Africa and Finland, respectively?
2. Which scientific concepts dominate children’s learning in specific subject areas?
3. How are children in the respective sociocultural contexts of learning and development taught?
4. What curriculum policy considerations dominate teachers’ classroom practices and what beliefs and assumptions about children, knowledge and learning do teachers embody and enact in their teaching?
5. What knowledge and skills from their informal or spontaneous, everyday situations do children bring to bear on their formal, classroom learning activities?
6. Which forms of Information Technology (IT) learning activities characterize children’s formal and non-formal learning contexts and what implications do these have on children’s learning and development?

Theoretical framework
Our hypothesis is that children are not merely reactive, passive and controlled either by environmental or by biological forces, but that through prompting their competence, children can make themselves more efficacious, proactive and self-regulating. In following this line of thought, the main principle in the research project is to consider children as active participants in collaborative activities of their society and schooling, actively contributing to, and creating their own competence. By combining and contrasting the two cultures of childhood and young people, Finland and South Africa, this research stands to contribute to global efforts that aim to prevent marginalization and inequality in children's participative and collaborative activities, as well as their well-being.

Participative and collaborative activities within formal, as well as informal cultural contexts contribute to children’s learning and development in fundamental ways which have far reaching implications for their acquisition and development of competent abilities, knowledge and skills. However, children’s well-being is constantly challenged by the collision between their existing competencies on the one hand, and the changing demands and practices of their society and schooling. For example, in Finland and other countries in the global north, the disjuncture between formal and non-formal learning and developmental contexts was found to result in students not able to experience balanced and satisfactory childhood while stress increases among students were reported to account for persistent achievement pressures; also accounting for increases in burnout that is consistent—over time, with emotional exhaustion and cynicism predicting feelings of inadequacy (cf. Salomela-Aro, Tolvanen & Nurmi, 2012; Salmela-Aro et al., 2009; Parker & Salmela-Aro, 2011).

In South Africa, children’s wellbeing is largely affected negatively—albeit in a well-intentioned post-apartheid political dispensation, by instabilities in classroom teaching and learning practices, resultant from the changes in schooling and instructional policy frameworks through which their learning and development takes place. While school attendance has increased considerably under the current, post-apartheid political dispensation
and 98% of school-aged children stay in school until the ninth grade or fourteenth year of schooling, this post-apartheid schooling achievement has, unfortunately, not been accompanied by equivalent success in learning performance. For example, delayed progress through school was reported on 46% of children living in poorest 20% of households while the 2011 national assessment tests in grades 3 and 6 revealed low levels of literacy and numeracy, especially among children attending schools in poorest residential areas (cf. Hall et al, 2012; Department of Basic Education, 2012; Crouch et al 2009; Fleisch, 2008). Further, majority of children in South Africa complete primary schooling without having achieved an appropriate level of proficiency in reading, writing and basic numeracy (cf. Carnoy, Chisholm & Chilisa, 2012; Hungi et al, 2010; Fleisch, 2008; Howie, et al., 2007).

School performance in post-apartheid South Africa has remained poor and in some instances—especially during periods of policy implementation crisis that characterized Outcomes Based Education (cf. Chisholm et al. 2000; Jensen, 1997), also degenerated into a crisis situation such that many commentators have referred to a crisis (cf. Fleisch, 2008). This crisis was predominantly explained in terms of such disparate factors such as: widespread poverty and income inequality; malnourishment; lack of resources; poor quality teacher education and development; poor school leadership and a lack of accountability (cf. (Fleisch, 2008; Carnoy, Chisholm & Chilisa, 2012). While these studies correctly point to social and institutional factors deriving from the apartheid past, they view these factors as essentially external to classroom teaching and learning and as affecting the activities of classroom teaching and learning from the outside—as additional to, and therefore affecting classroom teaching and learning in a consequential, cause and effect, linear fashion. There is therefore a need of a theory that could inform a more adequate conceptualization of the sociocultural practices of schooling and classroom teaching and learning as they unfold in the her-and-now; but also in their manifold forms in which they manifest themselves as vestiges of past, apartheid practices of society and schooling. As a result, the present research integrates theories of human development (and learning) that posit the interconnection; as well as the interpenetration of human activity with the social situation of its manifestation; conceived both in sociocultural and historical terms. These theories posit the irreducible nature of human individual and social activity, as well as cultural and biological processes, in the generation of competence and performance, both, within formal and non-formal situations. Lev Vygotsky’s (1986; 1981; 1978) theoretical contribution towards such an integrated and ‘non-additive’ (cf. Stetsenko, 2009) understanding of human learning and development provides central conceptual grounding, as well as methodological design framework for the present research.

The theoretical contribution of Vygotsky’s cultural-historical activity theory (CHAT) framework to contemporary understanding of human learning and human development is immense, comprising theoretical advances in the understanding of the notion of context, the role and significance of psychological or cultural tools in human development and acquisition of competence, the indispensable role of human agents in the mediation of knowledge as well as the all important process of internalization (Vygotsky, 1986; 1981; 1978). The notion of internalization has crucial significance for understanding learners as having an active agentic role, rather than a passive one and, as inherently activist (Stetsenko, 2010) in their disposition to knowledge and learning. The internalization process explains the self-regulative process that characterized human engagement with knowledge and the world as well as the fundamental mechanism that account for development and acquisition of competence. It is this notion that accounts for learners’ inherent capacity to learn and to achieve competence on their own through their participatory and collaborative engagement with the world in their social and cultural contexts of learning and development.

However, self-regulation takes place in diverse sociocultural contexts of learning and development, and the unique characteristics of these contexts need to be examined so as to understand the specific affordances and impediments that grew out of the activities of these contextual conditions. Contemporary, post-Vygotskian CHAT frameworks provide potential
extensions of the notion of sociocultural context; beginning with Bronfenbrenner’s (1994) notion of context as concentric circles that provides progressive, yet interrelated layers of encirclement of the inner organismic activity to Stetsenko’s (2009) notion of “non-additive”, interpenetration and non-reductive notion of context that posits interconnectedness of biology and culture on the one hand, and society and individual of the other.

The potential of these frameworks in illucidating on the significance of the cultural context of schooling and human development in South Africa and Finland has important implications with reference to creating conditions necessary for children’s acquisition and development of self-efficacy and competence. In particular, understanding how teachers organize classroom activities and how learners participate and collaborate in such activities; as well as how the knowledge learners bring into their classroom learning from out-of-school learning and developmental situations could help unravel the cultural-historical processes and hence, the social organization of schooling and classroom teaching and learning that regulate children’s development within the respective schooling contexts.

In South Africa for example, Muthivhi (2008), Muthivhi and Broom (2008) and Hardman, (2011) have documented pedagogical practices within primary schooling that fail to meet children’s capacity for self regulation and hence, their inherent need to participate actively, and contribute meaningfully, in their learning and development. Classroom practices that impend on children’s development and achievement of competence are often exacerbated by entrenched socioeconomic inequalities and poverty conditions—vestiges of the apartheid political dispensation. While the socioeconomic conditions still remain and continue into the present, their effects are clearly felt in schooling as well. Perhaps the inability of the post-apartheid political dispensation in South Africa to systematically and substantively address widespread problems of unemployment, health and nutrition—all pointing to persistent socioeconomic problems that were the hallmark of apartheid South Africa for the majority of its people will reveal, for a study of its schooling system, the a similar trend in regard to the extent to which politics has actually failed schooling and more importantly, the majority of children whose attainment of competence has been impeded by the failure of both the apartheid, as well as the post-apartheid political dispensations.

This point suggests, as has been posited in contemporary theorizing of human development and education (Stetsenko, 2010; 2009), the central role that political decisions and governments have in human development and the idea that both are as centrally implicated for an adequate account of human development as are factors such as biology and genes. History, in all its complexities as a theoretical concept and an explanatory factor in human development, as Vianna & Stetsenko (2009) suggests, penetrates deep into the history of society as much as it penetrates into the history of political activity imbued with practices of exclusion and injustices that may be covered in ideologies which; at face value, manifests no intend for perpetration of social injustices, even in educational provision. The ideological underpinnings and political decisions in regard to the provision of schooling in the respective sociocultural contexts of South Africa and Finland could therefore be theoretically examined; both from the point of view of their development in the course of the history of their contemporary schooling and the consequent practices of classroom teaching and learning as their manifests in the here-and-now of classroom teaching and learning and children’s development within the two schooling and sociocultural contexts. In this way, context; the context of schooling and human development becomes all encompassing, wholistic, none-atomistic and irreducible, but fused into, and manifesting in, the complexity and unity of human practice—not reducible to the elements that make it (Stetsenko, 2010; 2009).

In the case of South Africa, for instance, the changes in instructional policies over the past two decades of post-apartheid schooling; while intended to address detrimental effects of apartheid schooling on children’s learning and development and hence, achievement of competence has, unfortunately, resulted in further damage to the stability of the system and
the practices of classroom teaching and learning. Outcomes-Based Education framework in South Africa posited an educational framework that began with the assumption of learner competence while advocating for self-regulation as the main driving force for learning and construction of knowledge. The teacher was conceived as mediator and facilitator and therefore not as transmitter or giver of knowledge (Department of Education, 2002; 1997a; 1997b; 1996a; 1996b; 1994; Chisholm et al. 2000). In no time; within the first decade of this framework, the policy changed towards a more teacher driven models of classroom practice, culminating in the present framework which posits knowledge as passion of the state through centralized school authorities and the teacher as a sort of an industrial line worker transmitting given content and employing prescribed methods of teaching (cf. Department of Basic Education, 2009). Two contradictory models of schooling and hence, human learning and development; and by implication, social competence and socioeconomic orders, are presupposed by the respective educational policy frameworks that the post-apartheid political dispensation had propagated in the past two decades of post-apartheid schooling. The real effects of these policy frameworks; as well as their regularities on teachers and learners practices, could be fully comprehended by closely examining the practices of schooling and classroom teaching and learning as they unfold in the here-and-now of the South African schooling (cf. Muthivhi, 2014).

The forms of classroom practice that dominate a particular schooling system will have a particular consequences of children’s learning and development, as well as their attainment of task competence and well-being in general. In studies of human development and schooling the effects of specific instructional models of children’s acquisition of personality, motivation and orientation of the world has been extensively examined. Hedegaard’s (2002; 1996; 1990) work, for example, examined the specific forms of classroom teaching and learning or ‘epistemic procedures’ in relation to the specific knowledge and learning orientation that is generated on the part of learners. Hedegaard (2002; 1996; 1990) found that learners’ personality development and their motivation to learn are related to the epistemic procedures or approach to teaching that dominate classroom activities. Arievitch & Stetsenko (2000) have examined the quality of cultural tools employed in the mediation of scientific concepts or subject matter knowledge to learners within the pedagogic approach developed by Galperin during the middle of the twentieth century. Arievitch & Stetsenko (2000), elaborating on Vygotsky’s theoretical concepts, contend that it is the quality of cultural tools; or how concepts are mediated to learners in ways that expand their existing understanding and breaks away from everyday forms of knowledge and understanding to provide new, theoretically informed and more powerful forms of knowledge and conceptualization of phenomena in its complexity that develops a meaningful and developmentally more powerful forms of knowledge and learning to learners.

Cultural-historical activity theory research framework with its various contemporary extensions provides powerful conceptual and methodological tools for researching schooling in different sociocultural contexts in which its takes place. Different dynamics and unique contextual conditions may apply in different sociocultural contexts, calling for contextually sensitive approaches to the investigation to the practices and their associated relational activities that characterize schooling and social relations (cf, Kovalainen & Kumpulainen, 2009). However, the specific forms of schooling, as well as the specific practices of classroom teaching and learning that dominate each sociocultural context could reveal the structural dynamics of the cultural conditions that give rise to and foster form of children’s self-regulative activities, conducive for the development of school and social competencies that could be deemed appropriate for educational success.
Methodology

Research Design
The methodological design is driven by Vygotsky’s (1978) concept of theory-method that posits an inextricable connection between theory and methods. Theory guides method development and informs analysis and is therefore not separable from the design and data techniques (cf. Stetsenko, 2010).

In developmental psychology, interviews may be interwoven with observation and related technique to probe processes that like below the surface and require deeper interrogation. Luria’s (1976/1979) used the clinical method; which was already widespread from the work of Piaget (1981;1964), and thus integrated natural form of questioning which included probing that followed the responses offered by respondents to the interview questions. Observational data is also an integral part of the clinical interviews and both, written interview questions; follow-up, probing questions that lead to a conversation about the phenomenon in a natural setting as well as the observational data are used together as an integrated tool for empirical investigation of a given phenomena.

Geertz’s (1975) approach for the investigation of culture resonates with the cultural-historical activity theory approach. In this approach, theory hovers low and guides grounded, empirical investigation without predetermining its outcome; although providing valuable conceptual and reflective tool for understanding the context and the emic data obtained from the field. Ratner (1997;1991) argued for a related approach to investigating the cultural aspect of psychological phenomena; searching for the meanings that lie deep, below the surface structure of apparent activities and information but looking for meanings and patterns that may shed light on the cultural nature of human psychological processes, encountered and manifest during social practices such as that of formal schooling.

Therefore, expanding of these methodological approaches, the current research employs three related forms of data collection methods; namely, questionnaire, observation and interview. Questionnaire will function to invoke information on what teachers and their learners think of their classroom teaching and learning activities. Observation provides data on activities and practices reported by informants in the questionnaire, and provides data that relates to, and potentially addresses, research questions. Interview will be semi-structured but follow-up, probing questions will be allowed for, as necessary, so as to clarify on reported data as well as observed practices.

Questionnaire
This does not necessarily refer to survey questionnaire that is normally used in quantitative, statistical methodologies. For the present research, questionnaire is modeled around the specific nature of the phenomena under investigation and is therefore aimed at eliciting qualitative data through open-ended questions, which will be followed-up by further non- structured, probing questions during the subsequent interviewing sessions. Also included as a form of open-ended questionnaire are questions to learners, which are to be answered in a written essay format. The aim is to provide learners with the opportunity to express themselves in narrative form and hence, for them to provide rich information about their experiences (cf. Ratner, 1997; 1991). Appendix A provides a sample of the questionnaire for teachers while Appendix B is a sample of an Essay Task that will be given to learners by their teachers as a class exercise.

The questions will focus on how teachers’ teach and how they enable their learners to learn, while questions addressed to learners in the Essay Task will focus on how learners experience learning, as well as the activities they participate in, both during schooling and outside of their schooling.
Observation
Classroom observation will involve the researcher audio recording and taking notes on unfolding classroom teaching and learning activities. Observation will also involve taking short video clips of episodes that potentially corroborate responses to the questionnaire and narrative in the Essay Task, as well as episodes that potentially relate to; and illuminate on, aspects of the research questions. Appendix C provides a sample of the observation protocol that will guide data collection through this technique.

Interview
Interview questions will be non-structured; essentially following up on responses provided in the questionnaire and the narratives in learners’ essays as well as seeking clarifications on what the researcher observed during classroom teaching and learning and other related school activities.
Interviews will be audio recorded, but video clips of materials and activities that may require such form of data gathering for effective analysis may also be included, where appropriate. Appendix D provides a sample of the structure of the interview questions

Ethical considerations
Ethics clearance for the research will be applied for with respective host institutions in Finland and South Africa; namely, the University of Helsinki; the University of Oulu and the University of Cape Town.

The long-term relationships with many schools in South Africa will provide fruitful and sustained platform for the empirical research, while the relationship colleagues in Finland already have with their research schools will facilitate ready access and establishment of trusting relationships.

Permission to conduct research in schools will also be obtained form the relevant education authorities in South Africa; namely, the Western Cape Education Department, Gauteng Department of Education and Limpopo Department of Education. The University of Helsinki, the University of Oulu in Finland will facilitate permission process with their respective school authorities.

The research will adhere to codes of ethics governing the conduct of research within the respective countries; Finland and South Africa, specifically in regard to informed consent, participants’ anonymity, guarantees, right to withdraw participation with no possible adverse consequence resulting from such action, etc. See Appendix E for a sample of the consent form that will be addressed to teachers, learners and parents, respectively. In cases where learners and/or parents may not be sufficiently proficient in English or not adequately literate to understand the content of the consent form; translation will be provided with the assistance of teachers and research assistance that may have relevant language expertise and experience. The need for such interpretation and translation will be accurately determined in conjunction with teachers and research partners. In all respects, relevant ethical codes for scientific research will be followed.
Research process

Finland.
The research project will begin in 2013, with a two weeks preparatory visit to Helsinki and Oulu respectively. During the visit, meetings with colleagues and seminar presentations will be held at the respective host universities, namely, the University of Helsinki’s Department of Teacher Education and the University of Oulu’s Faculty of Education. Crucial to this visit will be fieldwork research planning meetings to be held with the primary schools in each of the two Finish research settings, Helsinki and Oulu. The two sets of the primary schools in which the empirical research will be conducted will, ideally, be representative of the wider Finnish society. That is, the schools in each research site will—where possible—be representative of the middle class, as well as the working class socioeconomic backgrounds.

Actual empirical research in the schools will only resume within the first part of 2015 for up to six weeks. Further research visits to Finnish schools will also be conducted towards the end of 2015 and mid-2016, also for up to six weeks per research visit. A research team visit during the first months of 2016 will include a presentation of the research results and a discussion of possible research collaboration in the future.

South Africa

In addition to the fieldwork in Finland, empirical research will also be conducted in South Africa at primary schools in Venda (Limpopo Province), Soweto/Alexander and Johannesburg suburbia (Gauteng Province) as well as in primary schools in Cape Town township schools, as well as in schools in the southern suburbs of Cape Town (Western Cape Province).

Up two three weeks of fieldwork in each of the three provinces will be undertaken between 2015 and 2016 (see table below for summary of the research visits for Finland and South Africa, respectively).
Table: Summary of the research visits for Finland and South Africa during the project period—2013-2016

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<tr>
<th>No.</th>
<th>Research Activity</th>
<th>Period</th>
<th>Research Site</th>
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<tr>
<td>1.</td>
<td>Research Team Preparatory Visit</td>
<td>2013, November</td>
<td>Finland</td>
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<td>2.</td>
<td>School Research: Principal Researcher</td>
<td>2015, March-April</td>
<td>Finland</td>
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<td>2.</td>
<td>School Research: Principal Researcher</td>
<td>2015, June-July</td>
<td>South Africa</td>
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<td>3.</td>
<td>School Research: Principal Researcher</td>
<td>2015, September</td>
<td>South Africa</td>
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<td>4.</td>
<td>School Research: Principal Researcher</td>
<td>2015, Nov/December</td>
<td>Finland</td>
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<tr>
<td>6.</td>
<td>Research Team Visit</td>
<td>2016, January/February</td>
<td>Finland</td>
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<td></td>
<td>Concluding Research Visit: Principal Researcher</td>
<td>2016, June-July</td>
<td>Finland</td>
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Researchers

1. **Dr Azwihangwisi Muthivhi** [Principal Researcher]
   Azwihangwisi Muthivhi is a senior lecturer in the School of Education at the University of Cape Town. His main research interest is in Developmental Psychology and Education, specifically the learning and development of primary school learners in rapidly changing socio-cultural contexts of schooling. His ongoing research examines the modalities of classroom instructional practices, especially in marginalized communities within the rapidly changing South African schooling system, as well as the regularities of cultural processes and how these contribute to children’s learning and development.

2. **Emeritus Professor Shirley Pendlebury** [Senior Researcher]
   Shirley Pendlebury is immediate past Director of the Children’s Institute, a cross-disciplinary child policy research institute at the University of Cape; a former head of the School of Education at the University of the Witwatersrand; and currently an emeritus professor in the School of Education at the University of Cape Town. While her main disciplines are philosophy and education, she has experience in cross-disciplinary research, particularly in the areas of teacher education, social justice, children's participation and childhood studies. In 2010 she served as guest editor of a special journal issue (*Perspectives in Education*) on Theorising Children’s Participation. Through her work at the Children’s Institute, she also has experience in translating research into accessible forms for policy and practice. Her contribution to this project will be primarily conceptual and theoretical.
3. Dr Yvonne Broom [Senior Researcher]
Yvonne Broom is senior lecturer in Psychology in the School of Human and Community Development at the University of Witwatersrand. Dr Broom also serves as assistant dean of students. Dr Broom had served as supervisor of Dr Muthivhi’s doctoral thesis which was completed in 2008 and she has been a research associate ever since, as association which has led to publication of two research papers in the past.

National and International Reviewers and Collaborators
The project teams are all well-connected internationally. Furthermore it is expected that the results of the project will be of interest globally, hence the project will strengthen the existing international partnerships and also produce new connections. Among their specific roles in research collaboration, international collaborators in the project will serve as reviewers and advise on the execution of the research activities and publication processes. The international reviewers and collaborators are:

**LIST OF PEER REVIEWERS AND COLLABORATORS AND BRIEF BACKGROUND STATEMENT ON EACH OF THEM:**

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1. **Professor Kristiina Kumpulainen**, professor of Education in the Department of Teacher Education, University of Helsinki. Prof Kumpulainen’s research interests are in social foundations of cognition, sociocultural theories of learning and teaching, classroom interaction research, collaborative learning and problem solving processes across disciplines and age groups, technology-enriched mathematics and science education as well as on teacher learning with digital video cases. We are grateful to have Prof Kumpulainen into our team of international collaborators and advisory board. Prof Kumpulainen is already involved in a separate project involving Finland and South Africa and we look forward to sharing experiences and research findings. Subject to the availability of funding, we hope to invite Prof Kumpulainen to participate in one of the project workshop, to be hosted in South Africa.

2. **Professor Anna Stetsenko** is Head of the PhD Programme in Developmental Psychology at the Graduate Centre, City University of New York. She is a leading scholar in the world today, developing and expanding on the sociocultural activity theory (CHAT) framework and its implications for human development and learning. The focus of her research is on children's and adolescents' social development (e.g., gender, self-concept, motivation) with an emphasis on how this development is shaped by their interactions and activities within sociocultural contexts. Prof Stetsenko is a longstanding research collaborator with Dr Muthivhi and she has acted as reader for Dr Muthivhi’s doctoral thesis. Prof Stetsenko has recently spent time in South Africa, where – among other activities– she presented a seminar series, hosted by Azwihangwisi Muthivhi in the School of Education, University of Cape Town. Collaboration with her will benefit our elaboration of how sociocultural activity theory contributes to a deeper understanding of socially constructed competence. Her expertise in sociocultural activity theory is crucial to the project. During the course of the project, Dr Muthivhi will visit City University of New York to work with Professor Stetsenko on theoretical and methodological aspects of the research. Subject to the availability of funding, Professor Stetsenko will be invited to participate in a project workshop, to be hosted in South Africa.

3. **Professor Eugene Matusov** is professor of Education in the College of Education and Human Development, University of Delaware, United States of America, is a leading scholar in dialogic pedagogy, an expansion of the CHAT framework into education. Prof, Matusov’s

| 6. Dr Heather Jacklin | School of Education, University of Cape Town | Senior Lecturer, Humanities graduate School Building Tel: 021 788 3332 | Heather.jacklin@uct.ac.za |
on-going collaboration will be important for the South African consortium, specifically in regard to elaborating on the role of cultural processes on children’s development and learning. Dr Muthivhi visited Prof Matusov at the University of Delaware in June 2013. Subject to the availability of funding, Professor Matusov will be invited to participate in a project workshop, to be hosted in South Africa.

Dr. Joanne Hardman is Senior Lecturer in the School of Education, Dr Hardman’s research is in concept learning and acquisition and developmental change. Dr Hardman heads educational psychology in the School of Education at the University of Cape Town. Dr Hardman has published many research articles in scholarly journals and book publications nationally and internationally and she is recognized as leader in her field nationally. Dr Hardman’s input into the project research processes will be invaluable and her input will ensure research of the highest standards.

Professor Joy M. Scott-Carrol is visiting scholar at the University of the Witwatersrand, Johannesburg and a specialist in diverse gifted learners’ education. Prof. Scott-Carrol has lectured for many years at the University of Wisconsin, Madison, USA and has contributed enormously in the research on gifted and diverse learners in the United States of America. Prof Scott-Carrol has also worked closely with Dr. Muthivhi in applying the concept of giftedness for culturally diverse learners in South African schooling.

Dr. Heather Jacklin is Senior Lecturer and founding member of the CHAT Forum, Doctoral Students Seminar Series. Dr. Jacklin’s extensive experience and wealth of knowledge in regard to research methodologies in Education will be invaluable for the research project. Dr. Jacklin convened the Masters Programme in The School of Education and she collaborates with Dr Muthivhi in teaching and the supervision of post-graduate students.

References


Change in Finland?
TIMS and PERLS (2011) TIMS & PERLS International Study Center, Lynch School of Education, Boston College