# List of possible Master’s projects – CERM-ESA 2016

## Table of Contents

01 Developing culturally sensitive disciplinary literacy: A design-based approach ......................................................... 2

02 Teachers’ and learners’ perceptions of good teaching practice in rural secondary schools in Kenya and South Africa ............................................................................................................................................... 4

03 Managing conflicts between indigenous knowledge and science in education for sustainable development in Africa ................................................................................................................................................. 6

04 An arts-based comparative study of Kenyan and South African pre-service teachers’ perceptions of the extent to which their institutions embrace a humanising pedagogy ................................................................................................................................. 8

05 Stakeholder’s perceptions of indigenous knowledge in the school curriculum in Kenya and South Africa: Place and position .............................................................................................................................. 10

06 Sexuality and the cultural constructions of manhood/womanhood in Africa: Implications for HIV&AIDS Education ........................................................................................................................................... 11

07 How effectively are pre-service teachers prepared for diversity in their classrooms? Case studies in Kenya and South Africa ............................................................................................................................................. 14

08 Does the dynamic software, GeoGebra, enhance mathematics pre-service teachers’ visuo-spatial abilities and understandings of geometry? ........................................................................................................ 16

09 The effect of postgraduate student-supervisor relationships on student retention and completion rates: An investigation in three African universities ....................................................................................... 17

10 Information and Communication Technology (ICT) in Education: Barriers towards implementation and possible solutions .............................................................................................................................................. 19

11 Plagiarism in masters and doctoral studies: an intercultural investigation .................................................................................. 21

12 An investigation of the reasons for the low intake of young female adults entering postgraduate studies at African HEIs ............................................................................................................................................... 24

13 The effect of using Hypermedia on hearing impaired learners’ ............................................................................................ 26

14 Books for Africa: Creating a reading culture through informal book clubs .................................................................................. 27

15 Developing pre-school learners’ visual perceptual abilities through guided play activities involving six-brick Duplo Block approach ........................................................................................................ 29

16 First-generation multilingual education students’ experiences when studying at an African university: Transition from high school to university .................................................................................... 32
01 Developing culturally sensitive disciplinary literacy: A design-based approach

Assumption

It is possible to design culturally appropriate content-based material to meaningfully engage students in ‘sensitive’ topics related to human reproduction.

What is already known?

It is known that culture plays a major role in the engagement of learners in meaningful learning in biology (Settlage & Southerland, 2010; Ladson-Billings, 2012). Using understandings of culture as a starting point when developing written materials carries the implicit message that high quality science education for all African students requires embracing cultural diversity, particularly when teaching ‘sensitive’ topics in biology, e.g. human reproduction (Settlage & Southerland, 2010).

Cultural beliefs of learners contribute to their prior knowledge, while religious beliefs influence some teachers to promote more conservative values amongst their learners regarding sexuality (Doidge, 2014). Schools therefore play an important role in not only providing information about human reproduction and sexually transmitted infections (STIs), but in developing skills and influencing values and attitudes in relation to responsible sexual behaviour (Doidge, 2014).

The development of science content literacy (Shanahan & Shanahan, 2008) – the specific literacy requirements of those who read, write, and talk about science – as a companion to content instruction help learners to access science content in a way that fosters discussion, reflection, and authorship, enabling them to go beyond the content presented in the class (Grant & Fisher, 2010). The skills involved in this stage of disciplinary literacy development are usually not formally taught (Grant & Fisher, 2010). Science content literacy, a specific type of disciplinary literacy, requires that a reader view a text from a framework that allows for predictions, questioning that going beyond the text, which is inherent in a ‘reading to learn approach’. This approach enables learners to continue to learn, reflect, and communicate about science issues throughout their lives (Allen, 2000). Design-based research is particularly suited to address research problems of this nature (Juuti & Lavonen, 2006). As such, a strategy which could achieve meaningful engagement and develop disciplinary literacy in a culturally sensitive manner appears to be ‘a reading to learn approach’ when developed via a design based approach.

The gap

There is a paucity of materials that aim at both the construction of knowledge about the biological aspects of human reproduction as well as values and attitudes, ethics and decision making skills about sexuality relevant to the age, context and culture of the child. As inappropriate approaches to the teaching and learning of this topic could cause offence, the purpose of the study is therefore to develop a teaching sequence utilising the reading to learn approach to teach human reproduction to 12-16 year old pupils from Xhosa and Kalingin cultures using a design-based research approach.

How will it be done?
As noted above, a design-based methodology will be used to develop reading to learn teaching sequences for pupils between 12 to 16 years of age attending schools in Kenya and South Africa to assist biology teachers to teach sensitive issues around human reproduction.

The conceptualisation phase of the design-based study will include generating teacher responses around the challenges of teaching human reproductive biology in Kenya and in South Africa, with special reference to the influence of the different cultures.

The design phase of the study will use the problems and issues identified in the conceptualisation phase, linked to the theoretical framework provided by the ‘reading to learn’ approach, to develop a teaching sequence or intervention that would address the research problem. The designed teaching sequence will be instantiated in two communities (Kenya and South Africa) as a multiple case study research design and evaluated for its utility and applicability to address the research problem.

**How will it be measured?**

A questionnaire and focus group interviews will be used to elicit teachers’ experiences with teaching human reproduction to 12 – 16 year old pupils as part of the conceptualisation phase of the study. Content analysis will be used to establish the factors that would inform the design of the intervention (the teaching strategy).

The instantiation will take place in a sample of schools in the two identified communities, chosen for their geographical convenience as well as the possibility of providing culturally rich data. Part of the instantiation would require the learners to write an essay (an artefact) on human reproduction to demonstrate their scientific knowledge as well as their development of a value system around the topic. These essays will be assessed using the SOLO taxonomy for the level of abstract thought (learning) displayed by the learners. These assessments will be used to comment on the success (or not) of the teaching strategy to lead to meaningful conceptual understanding of the topic ‘human reproduction’ by the pupils.

Focus group discussions will be held with the participating teachers as well as selected pupils during the evaluation phase of the study with the purpose of establishing the success of the intervention or teaching sequence in addressing the research question. Thematic analysis will be used to elicit the various themes that would surface during these focus group discussions.

**How will the finding be explained?**

The data generated will be viewed via the lenses of reading to learn strategies and the influences of culture on teaching and learning as presented in the literature review.

**References**


02 Teachers’ and learners’ perceptions of good teaching practice in rural secondary schools in Kenya and South Africa

Assumption

Theoretical positions as to what constitutes good teaching practice are often disconnected from what teachers do and what students perceive as happening in their classrooms on day-to-day basis (Helmke, Schneider, & Weinert, 1986; Shulman, 1987; Meyer, 2006). More knowledge and further analysis of the perceptions of teachers and learners on the practices of teaching in schools in Kenya and South Africa will provide directions for improving teacher practice, teacher development and learning in African schools.

What is already known?

Studies in Kenya, including research and curriculum projects initiated by policy makers and international organisations within the framework of development goals show that the teaching in Kenyan Primary schools is dominated by transmission forms of teaching (Ackers & Hardman, 2001).

South African empirical classroom-based research in education has focused on the quality of teaching and school improvement and on classroom practice and school effectiveness (Hoadley, 2012). A common issue that has been investigated both in South Africa and Kenya is language practice in the classroom (Bunyi, 2005), but classroom-based studies that seek to understand the teachers’ and learners’ perspectives of good teaching and to understand different styles of teaching and learning, their origins and teacher-learner interaction that are socio-culturally contextualised are largely missing.

The gap

There is a need for classroom-based studies that seek to understand the teachers’ and learners’ perspectives of good teaching that are socio-culturally contextualised as the findings should provide a better understanding of what happens or does not happen in the classrooms in rural secondary schools. Such findings should contribute to the current debate on professional development of teachers in Kenya and South Africa.
How will it be done?

A qualitative investigation of teaching and classroom interaction processes in two rural secondary schools in the Eastern Cape (South Africa), and two rural secondary schools in the Rift Valley Province (Kenya). Qualitative data will be generated in each of the four schools by (i) participant observation of lessons, (ii) one problem-centred interview (Witzel, 2000) with a teacher and (iii) a group discussion with five to ten learners of the class. This approach will allow for the integration of the perspectives of teachers and learners about good teaching practice and the types of interactions that occur between teachers and learners. By focussing on rural secondary schools in Kenya and South Africa a comparison of similarities and difference according to context will be possible.

How will it be measured?

The analysis and explanation of the observation protocols, the interview and group discussion scripts will be guided by the theory of symbolic interactionism (Denzin, 2000) and sensitive concepts of teaching (Helmke et al., 1986; Shulman, 1987; Meyer, 2006). In that way in the first step, the key factors to analyse and to explain the classroom practice and the teachers’ and learners’ perceptions will be structured and reconstructed (e.g. personal factors, contextual factors and interactional factors). In a second step findings from the interviews (teachers’ perspective) will be contrasted with those generated by the group discussions (learners’ perspective). As a third step, the teachers’ and learners’ perspectives (interviews and group discussions) will be compared with the results of the observations of classroom practice (teaching and interaction between teachers and learners). In the last (and fourth) step, the findings from the Kenyan cases will be contrasted with those from South African cases.

How will the findings be explained?

The findings will be explained through the theory of symbolic interactionism where the experience, perceptions and local narratives about how people do things together provide the focus (Denzin, 2000). Furthermore, the conceptual frameworks of teacher professionalization (Shulman, 1987) and of good instruction (Helmke et al., 1986; Meyer, 2006) will be used to explain the findings.

References


Managing conflicts between indigenous knowledge and science in education for sustainable development in Africa

Assumption

When integrating indigenous knowledge in education for sustainable development at schools, conflicts between traditional values and belief systems and a scientific approach are likely to occur. Teachers can find creative ways to moderate these conflicts with the goal of fruitfully integrating both knowledge systems.

Research question

- Where and when do conflicts between indigenous knowledge and a scientific approach occur in the context of education for sustainable development in Africa?
- What are constructive strategies and ways to integrate indigenous knowledge and values of different society groups into school education and a national curriculum?

What is already known?

In the attempt to better integrate sustainable development in particular into science education in Africa, there is a growing debate on the integration of indigenous knowledge into national curricula (Breidlid 2009, 2012; Owour, 2007; O’Hern & Nozaki, 2014). In a situation where the African School System is dominated by western knowledge and a western scientific approach and worldview, education for sustainable development faces difficulties in linking back to traditional and indigenous knowledge systems. This knowledge often does not find entry into standard curricula even though it offers insights and pieces of wisdom about the use of natural resources, traditional and local species and recipes or land management practices. Thus, more and more approaches developed to integrate this form of knowledge into schooling contexts in particular in science education have emerged showing significant learning improvements with young learners (Webb, 2009, 2010, 2013). Also the growing attempts to address issues of sustainable development moved into this direction when integrating problems such as environmental degradation, resource use, climate change, development challenges, international trade and alike into educational contexts in Africa (e.g. Tanui et al., 2013).

However, it is the basic assumption of this project that this integration does not come without conflicts on a conceptual level. Traditional and indigenous knowledge is part and parcel of a larger knowledge and belief system that deviates from western scientific concepts. Therefore, an integration of these
knowledge systems is challenging and requires a reflection of these conflicts and ways to deal with them in educational contexts.

**Gap**

The key question for this project thus is to better understand these conflicts, where do they occur, whether there are specific fields or conceptual levels that are more conflict-laden than others, are there different types of conflicts that can be identified.

Directly linked to this, the project should seek ways to manage these conflicts and to develop suggestions also for curriculum development, how teachers can handle these conflicts, implementing and using the curriculum.

**How will it be done?**

- Document analysis of the existing particular curricula connected to issues of sustainable development, such as Science Education, Life Orientation, Human and Social Sciences in Kenya and South Africa
- Qualitative research with teachers active in education for sustainable development in Kenya and South Africa

**How will it be measured?**

The study could measure the following variables:

- Mentioning of sustainable development and related topics in the national curricula in Kenya and South Africa
- Types and Number of conflicts or potential conflicts in the national curricula in Kenya and South Africa (qualitative – questionnaires and interviews)
- Teachers’ perceptions of best practice cases in integrating indigenous knowledge in science education in relation to sustainable development in Kenya and South Africa (this requires also a qualitative description and analysis – teacher reflections in focus group interviews).

**How will the findings be explained?**

Potential explanatory variables include current understandings of the importance of indigenous knowledge by some researchers (Aikenhead & Jegede, 1999) and its rejection by others (Horstemke & Enslin, 2005).

**References**


http://www.intechopen.com/books/sustainable-development-education-business-and-
management-architecture-and-building-construction-agriculture-and-food-security/indigenous-
knowledge-sustainability-andschooling-the-case-of-south-africa


04 An arts-based comparative study of Kenyan and South African pre-service teachers’ perceptions of the extent to which their institutions embrace a humanising pedagogy

Assumption

Pre-service teachers in the two countries have an understanding of what a humanising pedagogy entails and are able to articulate their views through drama on the extent to which their institutions embrace the principles of a humanising pedagogy.

What is already known?

Freire (1972) describes humanising pedagogy as a revolutionary approach to instruction that “ceases to be an instrument by which teachers can manipulate students, but rather expresses the consciousness of the students themselves” (p.51). Bartolome (1994, p.177) contends that “creating pedagogical spaces that enable students to move from object to subject produces more far-reaching, positive effects than the implementation of a particular teaching methodology.” In his conceptualisation of a student-centred humanising pedagogy Elbow (1994) supports a pedagogy in which the teacher relinquishes authority to the students in order to allow them to craft their own way. The adoption of such an approach enables teachers to find avenues for learning that typical instruction does not allow.

However, Bartolome (1994) points out that unless educational methods are situated in the students’ cultural experiences they will continue to experience challenges in mastering the content area that is “not only alien to their reality, but often antagonistic toward their culture and lived experiences”
(p.191), while Salazar (2013) states that humanizing pedagogy must be grounded in the diversity of everyday life and interrogate the human experience in the context of power, privilege and oppression to provoke action toward humanisation and liberation as espoused by Freire (1972) and McLaren and Jaramillo (2006).

How will it be done?

An arts based qualitative research methodological approach, referred to as performative inquiry, that shares characteristics of ethnodrama (Fels, 2004), will be used for the purposes of this research study. According to Fels (1998) performative inquiry is a research methodology that uses the medium and processes of drama as a way of knowing. This qualitative approach investigates how performance (improvisation, tableaux, role drama and playbuilding) creates a co-evolving interaction between participants, their environment and the subject theme within which moments of learning emerge (Fels, 2004). Pre-service teachers will be involved in performative inquiry, in particular through the creation of tableaux and playbuilding (Tarlington & Michaels, 1995), an approach where the group collectively builds a play around a particular issue or theme - in this case the theme of a humanising pedagogy. They will firstly be introduced to the concept of the humanising pedagogy through readings and discussion and thereafter they will be required to create tableaus and role plays depicting how they view their institutions in South Africa and Kenya.

Plus/minus 20 participants from each of Moi University (Kenya) and the NMMU (South Africa) will constitute the sample. A facilitator will guide each of the two groups in the drama-in-education process so that they are able to create their tableaus and role plays. The tableaus and role plays will be videotaped, transcribed and analysed. A multiple case study research design will be adopted for the purposes of this study.

How will it be measured?

The tableaus and role plays generated through arts based methodologies, in this case drama-in-education, will be videotaped, transcribed and analysed qualitatively according to themes. The participants will also participate in a reflection exercise after each tableau and role play to analyse their thinking relating to the issues highlighted and why they regarded these issues as crucial.

How will the findings be explained?

The findings will be explained by analysing the themes that emerge from the ‘rich thick data’ elicited from the drama-in-education presentations as well as from the group discussions after the presentations. The findings from each of the case studies will firstly be presented separately in two cases focusing on the students’ perceptions of the extent to which their institutions embrace humanising pedagogical principles. Thereafter the issues emerging from the cases will be analysed comparatively with a view to identifying common and divergent themes emerging from the two cases.

References


05 Stakeholder’s perceptions of indigenous knowledge in the school curriculum in Kenya and South Africa: Place and position

Assumption

It is assumed that community members, teachers and school children are aware of indigenous knowledge (IK) and indigenous knowledge systems (IKS) in their community and have perceptions of the importance of each knowledge ‘item’, and that they are able to make a reasoned judgement as to whether such knowledge should or should not be included in the school curriculum, as well as where it should be included (grade level and content source).

What is already known?

It is already known that there is robust debate around the issue of inclusion of IK and IKS in the schooling system (particularly in the science syllabus). Much is known about issues of the nature of knowledge, the nature of science and the nature of indigenous knowledge (Hodson, 2009). There is also much written about possible reasons for including IKS (e.g. Southerland, 2000) and there are well presented arguments against inclusion of IKS in particular subjects in the school curriculum.

The gap

While initial attempts have been made to understand what local stakeholders think about the inclusion of IK and IK in the school curriculum in authentic contexts (Webb, 2013), no investigations as to what they really value, and where they think this knowledge should be positioned has been made, particularly in comparative settings in Africa.
How will it be done?

The research will be conducted within a pragmatic paradigm using a mixed method approach (Creswell, 2005), but will rely largely on qualitative data with descriptive statistics providing a starting point for thematic analysis. After appropriate schools have been identified in terms of catering for largely homogenous cultural groupings convenience sampling of teachers and learners across grades, as well as ‘knowledgeable’ community members will take place.

How will it be measured?

Qualitative data will be generated through semi-structured focus group teacher/pupil/community member interviews and open-ended questionnaire questions. The interviews (qualitative data) will be categorised and then analysed thematically according to the Tesch method (Creswell, 2005). These interviews should afford insight into the stakeholders’ thoughts, understandings and views regarding IK and IKS in their communities and in the school curriculum. Quantitative descriptive statistics will be generated via closed ended questionnaire questions.

How will the findings be explained?

The data generated will be interpreted via the lenses of nature of knowledge, nature of ‘scientific’ knowledge and the nature of IK and IKS as presented in the literature review.

References


06 Sexuality and the cultural constructions of manhood/womanhood in Africa: Implications for HIV&AIDS Education

Assumption

The teaching of HIV&AIDS education in African countries could be enhanced through understanding the interface between sexuality and the cultural constructions of manhood/womanhood. Such understandings could assist in shaping a curriculum that is relevant to each context.

What is already known?

Many cultural groups in Africa have developed and continue to carry out initiation practices, or rites of passage, as part of the socialization of boys and girls. According to Barker and Ricardo (2005), such
practices are widespread in parts of West Africa, and in much of East and Southern Africa, with tremendous local and regional variations. These initiation rites often include seclusion of young people from their families, and some informal learning process, during which older men/women pass on information and/or skills that are considered necessary to be an adult female/male in their societies (Barker & Ricardo, 2005).

For young men in sub-Saharan Africa, as for many young men worldwide, sexual experience is frequently associated with initiation into manhood and achieving a socially recognized manhood. This fosters a perception of sex as performance, specifically a means by which to demonstrate masculine prowess. Young men, in many cultures, Africa included, experience pressure from peers to be sexually active and have multiple partners, in order to be seen as men. These sexual experiences may be viewed among peers as displays of sexual competence or achievement, rather than acts of intimacy (Marsiglio, 1988; WHO, 2001). Moreover, the status that a sexually active young man might attain among his peers can sometimes be equally, if not more important, than the intimacy that comes from the sexual relationship itself (Lundgren, 1999). This pattern of sexual bravado as a means to peer acceptance often continues into manhood (Barker, 2000). This association between sexual activity, manhood and identity has numerous direct implications for HIV/AIDS prevention. It implies among other things that changing sexual behaviour among young men must consider how sexual behaviour is linked to the sense of self and desire to achieve a socially recognized version of manhood.

Although young men’s sexual experiences are, in general, more self-willed than those of women, it is important to acknowledge the extent to which social pressures govern young men and women’s sexual behaviours and choices. For example, in many settings in Africa, if a young man does not have sex with a girl, his reputation may suffer among his male peers (Gorgen, et al., 1998; MacPhail & Campbell, 2001). Among Zulu young men in South Africa, a significant minority of young men report that they would prefer abstinence before marriage, but profess that they feel obliged to have sex before marriage for fear of social rejection (Varga, 2001). The notion that men have a right to multiple partners is reinforced in numerous ways in many cultural groups in Africa. Throughout the region, the tradition of polygamy is closely linked to the norm by which masculinity is expressed as sexual conquest and prowess, particularly as represented by fertility (Silberschmidt, 2001). These links have important implications for sexual behaviours and choices, particularly in terms of number of partners and use of condoms.

The gap

Indigenous sexuality practices and cultural constructions of manhood/womanhood are under-researched in many African communities due to the taboo nature of anything sexual. There is also a paucity of research on the indigenous dimensions of sexuality education in the African context. The wide variety of indigenous cultures in Africa provides a rich context for researching the integration of indigenous sexuality education into formal schooling.

How will it be done?

Guided by Schratz and Walker’s (1995) belief in research as social change, the study will be a qualitative and participatory research project, with participants drawn from different African contexts involved
in the CERM-ESA project. It will employ participatory and visual arts-based methods of research to generate data with young school-going men and women, teachers, and community leaders.

**How will it be measured?**

The different groups of participants will respond to a prompt to make a drawing that portrays their understanding of what it means to be a man/woman in their culture, and write an explanation of why they made each drawing. Each group of participants will also engage in focus group discussions in which they will discuss their drawings and explore what is missing in their portrayals. Participants will also make drawings/take photographs that depict their perceptions of the current HIV&AIDS education in their respective countries, with an explanation of the drawing/photographs. These will be followed by an exhibition and discussions to explore what is missing. Participants will then explore, through drama/image and forum theatre/participatory video, ways of aligning the curriculum with the cultural constructions of manhood/womanhood and indigenous sexuality education in their different contexts.

All discussions will be recorded and transcribed to facilitate ease of analysis. The visuals and accompanying texts will also be analysed to identify the themes. From the analysis, a framework for integrating indigenous sexuality education and cultural constructions of manhood/womanhood into HIV&AIDS education will be developed.

**How will the findings be explained?**

The CHAT (Cultural Historical Activity Theory) framework (Engeström, 2001) will be used to make meaning of the data.

**References**


**07 How effectively are pre-service teachers prepared for diversity in their classrooms? Case studies in Kenya and South Africa**

**Assumption**

The assumption is that although much has been written about dealing with diversity in education, the aspirations of policy frameworks in Kenya and South Africa are not being met by teacher education institutions in Kenya and South Africa.

**What is already known?**

Intercultural/multicultural education, culturally responsive pedagogy, anti-racist, social justice, diversity and inclusive education have, among others, contributed to the debate to increase educational chances and thus, social and economic participation for all groups in a given society. Diversity and education issues in Kenya have been investigated mainly from linguistic perspectives (Orwenjo, 2012; Mbithi, 2012; Wachira, 2006; Bunyi, 1999) and from the debate around inclusion of learners with special needs (Mweri, 2014; Lynch, 2011; Muuya, 2002; Mwangi, 2013) or on the education of girls and women (e.g. Chege & Sifuna, 2006). Research done on the transformation of South African Schools and universities and the preparedness of educationists and teachers to work in diverse environments focuses mainly on race and the integration of Black learners in the education system (Vandeyar, 2010; Ball, 2000; Meier & Hartell, 2009; Vally & Dalamba, 1999; Morrow, 1998; Cross & Mkwanazi-Twala, et. al., 1998; Hemson, 2006).

**The gap**

Studies focusing on certain aspects of diversity have been integrated in teacher preparation programmes in South Africa and, to a lesser extent Kenya. However, little is known as to the effectiveness of these programmes or how well they cater for the aspirations of the relevant national policy documents in terms of preparing teachers to cope with diversity issues in their classrooms.

**How will it be done?**

The research will include content analysis of the institutional policies and curricula for pre-service teacher education at three institutions in Kenya and three institutions in South Africa. One expert interview with key academic actors and focus group interviews with students at each of the six institutions will be conducted in order to analyse the underlying paradigms, strategies, practices and experiences concerning teacher preparation for the challenges posed by issues of diversity in their classrooms.
How will it be measured?

The data will be analysed by searching for concepts, goals, methods and curriculum implementation guidelines with respect to dealing with diversity at school level. Inductive and deductive schematic analysis will be used to categorise interview responses and the findings of the content analysis.

How will the findings be explained?

The analytical pattern and the findings will be explained through the theoretical frame-work of culturally responsive pedagogy (e.g. Sleeter, 2010), critical race theory/non-discriminatory approaches (e.g. Ladson-Billings, 1999) and multicultural education (Banks, 1995). These frameworks will be used to explain the nature of the policies and strategies used by teacher education institutions. The findings should be able to provide guidelines to inform the development of paradigmatic stances and strategies to better prepare teachers to deal with diversity in non-discriminatory ways.

References


08 Does the dynamic software, GeoGebra, enhance mathematics pre-service teachers’ visuo-spatial abilities and understandings of geometry?

Assumption

Geometry instruction using GeoGebra will enhance the visuo-spatial and Geometry abilities of pre-service mathematics method students in participating CERM-ESA institutions.

What is already known?

Saha, Ayub, and Tarmizi (2010) studied the effects of GeoGebra on mathematics achievement among students classified as high visuo-spatial ability students and low visuo-spatial ability students. For both groups, the post-test scores showed that the use of GeoGebra enhanced the students’ performance in learning Coordinate Geometry.

The gap

GeoGebra is dynamic software freeware that requires investigation in terms of its effectiveness in terms of visuo-spatial development. What is not known is whether an intervention introducing pre-service mathematics students to the dynamic software will improve the student’s visuo-spatial ability and related geometrical understandings, particularly in African contexts.

How will it be done?

An intervention using GeoGebra dynamic software will be introduced in mathematics teacher education classes at NMMU and Moi University. A pre-post-test quasi-experimental design with intervention and control groups will be used.
How will it be measured?

A pre-post-test method will be used to determine any changes in the students’ visuo-spatial abilities using a standard test that is available at the NMMU. An appropriate Geometry pre-post-test will also be developed. The data will be analysed statistically to provide descriptive and inferential statistics.

How will the findings be explained?

The findings will be explained in terms of how mathematical activity occurs in the brain (Karadag & McDougal, 2009), Baddeley’s (2007) model of working memory, Central Executive processes in the brain in terms of the phonological loop and the visuo-spatial sketchpad (McLean & Hitch, 1999), and links between mathematical performance and related visuo-spatial abilities (Reukhala, 2001).

References


09 The effect of postgraduate student-supervisor relationships on student retention and completion rates: An investigation in three African universities.

Assumption

The assumption is that understanding the factors related to postgraduate supervision in African universities that affect the throughput rates of Education postgraduate students will enable the formulation of context specific guidelines to ameliorate student-supervisor dynamics that are detrimental to retention and completion in masters and doctoral studies.

What is already known?

PhD research and completion and student satisfaction are becoming increasingly important in terms of attracting students in a highly competitive, international, tertiary education sector (Vladimir, 2010). Of all the students who leave doctoral programs, about one third leave after the first year, another third before candidacy, and a final third during the dissertation phase (Nerad & Miller, 1996). These high attrition rates have adverse effects on the individual, the supervisor, the institution and the nation, especially in resource-constrained countries such as Kenya, Tanzania and Uganda.

Reasons behind high attrition rates, slow and non-completion of PhD research are numerous and complex. Such reasons are generally related to lack of, or inadequate integration into the PhD programme or...
department (Girves & Wemmerus, 1988; Lovitts, 2001; Tinto, 1993 in Gardner, 2009a), feelings of psychological and cognitive inadequacy (Golde, 2005; Katz & Hartnett, 1976 in Gardner, 2009b), lack of financial support (Abedi & Benkin, 1987; Bowen & Rudenstine, 1992; Girves & Wemmerus, 1988 in Gardner, 2009b), and dissatisfaction with the programme or department (Girves & Wemmerus, 1988; Lovitts, 2001; Perrucci & Hu, 1995 in Gardner, 2009b). Scholars have further observed that those in the fields of science, technology, engineering, and mathematics (STEM) generally complete at higher rates than those in the social sciences and humanities (Bair & Haworth, 2005; Bowen & Rudenstine, 1992; Council of Graduate Schools, 2004; Nettles & Millett, 2006 in Gardner, 2009a), an indication that doctoral education is experienced differently within and among different disciplines. Disciplines have their own particular qualities, cultures, codes of conduct, values, and distinctive intellectual tasks (Austin, 2002; Becher, 1981 in Gardner, 2009a) that ultimately influence the experiences of the faculty, staff, and, most especially, the students within their walls. Therefore, while studies of the undergraduate experience as related to success often occur at the institutional level (e.g., Tinto, 1993), the discipline and the department become the central focus of the doctoral experience, rather than the larger institution (Berelson, 1960; Bowen & Rudenstine, 1992; Golde, 2005; Nerad & Miller, 1996).

Vladimir (2010) considered the potential predictors of timely completion among 1668 dissertation research students at an Australian University for a period of ten years (1996-2006). The results suggested attrition rates of 33% (1/3 failed to complete within five years of commencement) and a categorization of potential predictors into quality and personal situation of the student, nature and quality of supervision and resources and facilities available for the research project, with a strong inter-relationship among the factors.

The gap

While a number of studies have been undertaken on doctoral student attrition elsewhere there are few documented studies that have established the determinants of PhD students’ retention and completion rates in a multi-site study focusing on supervisory practices in African contexts.

How will it be done?

A mixed methods explorative design will be adopted using comparative case analyses and survey methods. A multi-site study involving Moi University, the NMMU and UMI is proposed. Data will be generated from a cross-section of final year doctoral students, PhD graduates, supervisors and academic and administrative managers of these universities.

How will it be measured?

A survey questionnaire will be administered to M and D students in which they will be asked to reflect on their postgraduate experiences. Similar questions will be asked to PhD graduates (within five years after graduation) who will be selected using a ‘snow-ball’ sampling technique. Data will also be generated via focus group and individual interviews using a key informants’ interview schedule. Document analysis will be used to establish the learning achievements in terms of progress records, publications, work required skills and supervision allocation/assignments. Quantitative data will be analyses statistically and qualitative data will be analysed thematically.
How will the findings be explained?

The findings of the study will be explained using attribution theory which focuses on the supervisory cultural contexts and structures that facilitate or hinder doctoral student retention and completion.

References


10 Information and Communication Technology (ICT) in Education: Barriers towards implementation and possible solutions

Assumption

ICT as tool has the potential to enhance teaching and learning but educators at schools (and lecturers at Higher Education Institutions) have not adopted and embraced it as has been expected. While there are several challenges that prohibit ICT implementation-adoption of ICT at there are possible solutions within the context where the problems are located.

What is already known?

It appears that several first-, second- and third order barriers (Balanskat, Blamire, & Kefala, 2006; Du Plessis & Webb, 2012a, 2012b; Ertmer, 1999; Subramanien, 2014) at meso-, micro- and macro level (Kirkland & Sutch, 2009; Subramanien, 2014) that hinders the implementation of ICTs for teaching and learning. Research by Du Plessis and Webb (20012a, 2012b) and Subramanien (2014) within the South African and African context has revealed many similarities with international research findings.

Research conducted by Ertmer (1999), Du Plessis and Webb (2012a, 2012b), Govender (2006; 2012), Govender and Govender (2013), Rogers (1983, 1995, 2003), Subramanien (2014) and Venkatesh, Morris, Davis, and Davis (2003) has suggested that the ‘self’ or individual human being plays a pivotal role related to ICT adoption and implementation. However, this does not negate the possible influence of external contextual and system wide factors that also play a role in the adoption or rejection of ICT implementation. These authors above have also made several suggestions towards addressing these barriers and it appears that barriers could be context specific.
The gap

There appears to be a paucity of information regarding the challenges at first-, second- and third order level or at meso-, micro- and macro level within an African context regarding the above, including the role of the ‘self’.

How will it be done?

Depending on the research design, i.e. whether a qualitative only (small sample), quantitative only (large sample) or a mixed method research approach combining qualitative and quantitative data will be followed. The data tools to be used, depending on the design, are open ended questionnaire, individual semi-structured interviews, focus-group interviews and/or quantitative survey. The paradigmatic position could either be interpretive, post-positivist or the pragmatic. Qualitative data will be thematically analysed whereas the quantitative data will be analysed statistically.

How will it be measured?

Depending on the context and or size of the study, three possibilities exists namely: qualitative only (small sample), quantitative only (large sample) or a mixed method approach combining qualitative and quantitative data (Creswell, 2004). If qualitative data is to be used only, the use of an open ended questionnaire, individual semi-structured interviews and focus-group interviews is proposed. If quantitative data only is to be used, a survey questionnaire will have to be developed. If a combination of qualitative and quantitative data is to be used, then an open ended questionnaire, individual semi-structured interviews, focus-group interviews and a survey questionnaire have to be used – depending on the sequence of the mixed method design.

How will the findings be explained?

The data will be examined within the theoretical perspectives of Balanskat, Blamire, & Kefala (2006), Balfour, Mitchell, & Moletsane (2008), Du Plessis and Webb (2012a, 2012b), Ertmer (1999), Kirkland and Sutch (2009) and Subramanien (2014). The analysis will entail the grouping and presentation of the findings as meso-, micro- and macro level challenges OR first-, second- and third order challenges. The same will apply to presenting the findings pertaining to possible suggestions to ameliorate the challenges. In addition, links to Rogers (2003) and Surry, Ensminger, and Haab (2005) as well as Surry, Porter, Jackson, and Hall (2004) could be used to inform interpretation further and to propose a possible suggested framework to inform planning towards diffusion.

References

11 Plagiarism in masters and doctoral studies: an intercultural investigation

Assumption

Different perceptions about what constitutes plagiarism in Master’s and Doctoral studies are prevalent in different cultures.

What is already known?

It is known that there are certain trends in institutional approaches to plagiarism which could be grouped on a continuum. At the one extreme of the continuum are found approaches characterised by ‘warn – detect – punish – policy’; further along the continuum are situated approaches that add to the latter the notions of ‘education – development – enablement’ (Price, 2002; Barrett & Malcolm, 2006; Devlin 2006), while at the other extreme of the continuum holistic institutional approaches appear (Park, 2004; Macdonald & Carroll, 2006).

It is also known that understandings of plagiarism vary widely (Larkham & Manns, 2002; Price, 2002; Park, 2003; Ercegovac & Richardson, 2004; Park, 2004; Bennett, 2005; Sutherland-Smith, 2005) and that much research has been conducted on the possible reasons for plagiarism (Pennycook, 1996; Ashworth, Bannister, & Thorne, 1997; Price, 2002; Park, 2003; Bennett, 2005; Hayes & Introna, 2005; Flint, Clegg, & Macdonald, 2006).

It is further known that a range of strategies to limit plagiarism has also been identified in a large number of research projects across the world (Roig, 2001; Landau, Druen, & Arcouri, 2002; Chandrasoma, Thompson, & Pennycook, 2004; Liu, 2005; Barrett & Malcolm, 2006; Devlin, 2006; Leask, 2006;

The literature also reports on research about the characteristics of people who plagiarise. It was found that plagiarism occurs more often among younger people (variations among age groups); more often among males rather than females; personality type plays a role in plagiarism; people with a higher skill level in academic integration are less likely to plagiarise; people whose financial situation is sound are less likely to plagiarise; the prevalence of plagiarism varies according to discipline (e.g. marketing, business and management students and students from the hard sciences are more likely to plagiarise than students from other disciplines); countries with authoritarian cultures and where intellectual traditions do not frown on copying have a higher prevalence of plagiarism; undergraduates are more likely to plagiarise than postgraduates and people with much time pressure plagiarise easier than those with better time management skills (Ashworth, Bannister, & Thorne, 1997; Bennett, 2005; Ercegovac & Richardson, 2004; Larkham & Manns, 2002; Park, 2003; Pennycook, 1996). The temptation would be to use these typical characteristics to predict the likelihood for plagiarism to occur, however, this is not encouraged.

Additional to all of the above, it is further known that many higher education institutions have policies, procedures and structures in place to deal with issues on plagiarism (Park, 2004; Macdonald & Carroll, 2006; Kaposi & Dell, 2012; Botha, 2015).

The gap

Serious cases of alleged and proven plagiarism have been identified at postgraduate level from time to time at universities across the world, sometimes with traumatic consequences for some of the parties involved (Park 2003). This has highlighted the fact that current strategies that are in place to address this issue in higher education are not as effective as we would want them to be (Park, 2003; Ercegovac, & Richardson, 2004; Potthast, Barrón-Cedeño, Eisel, Stein, & Rosso, 2010; Morton McKay 2014; Botha, 2015). Furthermore, there is a lack of research on whether there is a link between perceptions of what constitutes plagiarism and culture. If it is found that such a link exists, strategies could be developed that are based on cultural perceptions of plagiarism which could be more effective than current strategies.

Furthermore, most of the research on plagiarism at higher education institutions focus on undergraduate contexts, with limited research having been conducted in postgraduate research contexts.

How will it be done?

The empirical research will be conducted in the qualitative paradigm employing a multi-site case study design, contextualised in the faculties of education of at least two African universities. The empirical research will also include an analysis of the plagiarism-relevant policies, procedures and structures at the participating institutions. The data will be analysed and interpreted and then employed to develop a framework to guide culturally-based strategies for coping with plagiarism more effectively.
How will it be measured?

Focus group interviews will be conducted with each of three distinct sets of participants, namely masters’ students, doctoral students and research supervisors in the education faculty at each participating institution. The focus group interviews will be followed up by individual interviews with selected information-rich participants. The interviews will be recorded and transcribed. The transcriptions will be analysed using open coding, thus identifying categories and sub-categories of information. This will be followed by axial coding, assembling data in new ways, thus identifying a central phenomenon, causing conditions, context and intervening conditions. Subsequently, categories will be connected through selective coding. A conditional matrix will then be developed, if found to be appropriate.

Additional to the above, categories will be super-imposed on the transcriptions of the interviews. These super-imposed categories will be derived from Mezirow’s transformative learning theory.

From the total of these analysis steps, a framework will be developed to guide culturally-based strategies for coping with plagiarism more effectively.

How will the findings be explained?

The generated data will be interpreted through the lens of Mezirow’s transformative learning theory (Mezirow, 1991, 1996, 2000; Berger, 2004).

References


12 An investigation of the reasons for the low intake of young female adults entering postgraduate studies at African HEIs

Assumption

Not many female young adults from rural areas enter HEI for postgraduate studies. Possible reasons, amongst others, are embedded in patriarchal societies and cultural beliefs about the role of women.

What is already known?

The way society regards the role of women and values formal education are considered as the most important issues that influence career opportunities and the emancipation of the girl child in such patri-
archal communities (Ogu & Okonofua, 2014) These, together with economic status and geographical localities limit access to education and improved employment opportunities (Changachirere, 2011). In this regard Chikunda, Marambire, and Makoni (2006, p.145) report on a Zimbabwean study that found that at school level the curriculum is designed “along gender lines teaching women to internalize their own subordinate status, to view themselves of lesser value”, and restrict themselves to the reproductive sphere; something that might be closely linked to the high dropout percentage of girls at a young age as reported by Nmandu, Avidime, Ogugbenga, Dashe, Abdulkarim, and Mandara (2010).

Ogu and Okonofua (2014) posit that African countries are some of the most unequal societies in the world with gender inequality strongly motivated by patriarchal, cultural and religious aspects. The authors furthermore point out that it is therefore understandable that, compared to men, women remain under-represented in economics, politics and in social spheres under a continued preference for the male child.

The gap

The literature discusses various cultural rituals that may restrict a girl child’s opportunities to develop to her full potential; however, it is not clear how the girl child and even older women perceive the situation. Furthermore, it is not clear what the aspirations and dreams of the girl child in the rural areas are in general.

How will the study be done?

This study will use a descriptive ethnographic design (Check & Schutt, 2012, p.309) framed within Feminist Sociological theory. The field work could take place at the home university only; or could be done as a comparative at both the home university and NMMU in South Africa.

How will it be measured?

Once the research questions and objectives of the study have been formulated, suitable data generating tools need to be developed. Questionnaires focus group interviews and some visual data generating tools such as drawings and/or photovoice could be implemented. Analysis could be done by means of Atlas Ti if the student is very capable in computer use. Alternatively Colaizzi’s Content Analysis Steps could be implemented to determine themes and sub-themes (Check & Schutt, 2012).

Explanation of findings

Findings will be explained by interpreting the data and determining the implications of the findings; correlating these to what was found in the literature. Before final conclusions are drawn, valid recommendations will be suggested.

References


13 The effect of using Hypermedia on hearing impaired learners’ achievement in special secondary schools in Africa

**Assumption**

Using Hypermedia will improve hearing impaired learners visual perception and reading and writing skills.

**What is already known?**

Hearing impaired learners demonstrate lower reading, and writing skills than their hearing counterparts even though their mental abilities are on a par (Kiboss, 2012; Debevc, Stjepanovic, & Holzinger, 2014). It is also known that hypermedia environments encourage students to think in terms of metaphors, to be introspective, and to give free rein to their imagination (Turner & Dipinto, 1992). Exposure to hypermedia authoring tools helps students by giving them new and different perspective on how to organize and present information and a new insight into writing (Marchionini, 1988). Instead of viewing their writing as one long stream of text, students now see it as linked chunks of information (Turner & Dipinto, 1992) as the words and sentences that are usually processed and encoded only in the verbal system (phonological loop) are processed and encoded as imagery in the both the visuo-spatial sketchpad and phonological loop (Baddeley, 2007).

**The gap**

While researchers such as Kiboss (2012) and Mayberry and Lazarus (2002) have established that learners with special needs benefit greatly from using word processors and multimedia, little is known of about the effect of hypermedia on hearing impaired students’ visual perception and associated gains in students reading and writing skills.

**How will it be done?**

A quasi-experimental experimental/control group design, which will include quantitative and qualitative data within a mixed method pragmatic approach, will be employed with experimental and control groups in hearing impaired secondary special schools in Kenya, Uganda, Tanzania and South Africa. Pre-post reading, writing and visual perception testing will take place with both groups before and after the experimental groups are exposed to a hypermedia intervention. The sample will include form two (grade 8/9) students in all participating countries.
How will it be measured?

The participating students reading, writing and visual perception abilities will be measured quantitatively before and after the intervention using custom designed reading, writing and visual perception tests (prototypes are available at the NMMU). Qualitative data will be generated via focus group interviews with students and individual interviews with teachers. Thematic analysis will be used to categorise the qualitative data while descriptive and inferential statistical techniques will be used to analyse the quantitative data generated.

How will the findings be explained?

The findings will be explained in terms of Dual Coding theory (Paivio, 1997), which emphasises the strength of the brain to store and recall images and text, and Baddeley’s (2007) descriptors of the central executive brain functions.

References


14 Books for Africa: Creating a reading culture through informal book clubs

Assumption

That a print-rich environment encourages literacy development and that a culture of reading novels can be established as a classroom practice to develop learners as readers.

What is already known?

Research from the PIRLS reports suggests that access to print materials is a prerequisite for literacy development and growth (Mullins, Martin, Kennedy, & Foy, 2007). Children from lower socio-economic settings usually have access to fewer books to read independently, and reading novels may not be a family or community practice (Heath, 1983). Reading a variety of novels is arguably the most
effective practice for developing vocabulary breadth and depth (Roberts, Christo, & Shefelbine, 2012; Samuels, 2002)

The Gap

Reading clubs, or sometimes known as literature or book circles, are a regular phenomenon in Western Education, specifically in America (McMahon & Raphael, 1997; Appleman, 2006) and in the United Kingdom (Hodges, 2012). However little research has been done on using the practice of reading clubs in African classrooms.

How will it be done?

The research will be conducted within an interpretivist framework using a qualitative, participatory approach. The practice of reading and talking about novels would be introduced through whole class book talk modelled by the teacher. This could occur at any phase of schooling as long as there are sufficient titles of an appropriate level and length for learners to be able to read independently. As learners read different books every week, they would be encouraged to reflect on their reading in personal journals which the teacher would respond to. Throughout the six-month process whole class teaching, in which literary meta theory such as themes, plot and setting would be introduced, would be balanced with group reading and discussions around the different books in the individual reading clubs. Personal journal writing by learners with teacher responses will continue on a weekly basis. In addition, two focus group discussions with learners, one mid-way through the programme and one towards the end, will allow learners to share their thinking around the implementation and experience of reading clubs. This will form additional data to complement learner’s journal writing.

The research will take the form of multiple case studies of classroom reading clubs in Kenya and South Africa

How will it be measured?

Learners’ journal writing will be examined to ascertain the quality and quantity of their writing. Quality would be indicated by the understanding and application of literary terms in learners’ journal writing as well as the development of confidence in using these terms to comment on their reading. Responses and expansion to teacher feedback would also be indicators of a participation in dialogic engagement around novels. Learners’ insight and literary perceptions around characters, titles and themes would also be indicative of quality responses to reading literature.

How will the findings be explained?

Reading and writing responses to novels can be understood as a situated practice (Street, 1984; Street & Lefstein, 2007), and so learners’ writing over time could be explained in terms of access to dominant literacies using recurrent themes that emerge in journal writing.
References


15 Developing pre-school learners’ visual perceptual abilities through guided play activities involving six-brick Duplo Block approach

Assumption

It is assumed that community members, teachers and school children are aware of indigenous knowledge in their community and have perceptions of the importance of each knowledge ‘item’, and that they are able to make a reasoned judgement as to whether such knowledge should or should not be included in the school curriculum, as well as where it should be included (grade level and content source).

What is already known?

The importance of early childhood education, especially in the domains of reading and mathematics, coupled with its relationship to later achievement, has and continues to gain international recognition (Aubrey, Godfrey, & Dahl, 2006; van Oers, 2013). The development of various perceptual skills during these crucial years, especially visual perception, plays a fundamental role in determining a young learner’s ability to successfully complete written and numeric tasks (Clutten, 2009). Pickering (2001) states that young children appear to encode pictures of objects in visual form focusing on visual features such as shape, orientation and detailed appearance. A number of other researchers (Berg, 2008; Bull, Espy, & Wiebe, 2008; Geary, Hoard, Byrd-Craven, Nugent, & Numtee, 2007; Simmons, Singleton, & Horne, 2008) have shown correlations between children’s visuo-spatial working memory and their mathematical performance.
While many believe that spatial skills are not ‘teachable’ (Verdine, Golinkoff, Hirsch-Pasek, & Newcombe, 2014), certain studies suggest that spatial skills are malleable (Uttal et al., 2013) and that structured early play experiences can alter spatial thinking (Casey et al., 2008). Theorists and researchers identify play as the primary medium for development and learning for young children (Bergen, 2009) and that structured early play experiences can alter spatial thinking (Casey et al., 2008).

The gap

Mechanisms to develop children’s visual perceptual abilities have not yet been clearly defined (Nath & Szücs, 2014), and there is little to nothing mentioned about pre-school learners in literature focusing on guided play involving the usage of 6 Duplo Bricks, it would appear that investigating this area could be fruitful in terms of contributing to understandings of the development of early visual perceptual abilities in young children. The gap is the fact that in terms of African schools little is known about this type of approach and its effects in both South African and Kenyan contexts.

How will it be done?

The research will be conducted within a pragmatic paradigm using a mixed method approach (Creswell, 2005). Both quantitative and qualitative methods will be used following a pre-test – intervention – post-test quasi-experimental design. Literature on guided play and visual perceptual abilities will form a theoretical basis for this study. The intervention, which employs the provision and usage of 6 Duplo Bricks, will take place in two purposively selected schools. The volunteer teachers will work independently from each other. Teachers from School 1 will neither receive training nor the 6 Duplo Bricks and their classes will serve as the control group. Teachers from School 2 will receive training on guided-play 6 Duplo Brick activities and will serve as the experimental group. Learners will range between the ages of 4-5 years of age. This age group was chosen because research suggests that, taking into account verbal and non-verbal intelligence, spatial ability may be a unique underlying mechanism which can be used to account for differences in higher order academic performance at this age (Mayer, Sodian, Koerber, & Schwippert, 2014).

How will it be measured?

Quantitative data will be gathered using a computerised version of the Visual Perceptual Aspects Test (VPAT) which consists of nine subtests by the researcher during school hours. The tests (quantitative data) will be scored and entered into an excel sheet and then sent to the Nelson Mandela Metropolitan University’s Statistical Services. The nature of the data generated (parametric or non-parametric) will determine the statistical analyses to be undertaken. The purpose of the pre-tests is to determine learners’ baseline visual perceptual abilities before the intervention (guided play using 6 Duplo Bricks), whilst the purpose of the post-tests is to determine learners’ developments in terms of visual perceptual abilities after the intervention. Teacher and learner observation will occur during the invention phase.

Qualitative data will be generated through semi-structured teacher interviews which will be voice recorded. The interviews (qualitative data) will be transcribed, inspected, categorised and then analysed thematically according to the Tesch method (Creswell, 2005). These data will be compared statistically and teacher observation and interview data will be analysed inductively to generate themes (Creswell,
The interviews will afford insight into the teachers’ thoughts, understandings and views regarding guided play using 6 Duplo Bricks as a mechanism to develop pre-school learners’ visual perceptual abilities.

How will the findings be explained?

The data generated will be interpreted via the lenses of learning through play and the development of visual perceptual abilities as presented in the literature review.

References

16 First-generation multilingual education students’ experiences when studying at an African university: Transition from high school to university

What is already known?

Universities in Africa, as in other countries, are increasingly admitting first-generation students whose parents have not experienced more than a high school education. Many of these students study at institutions where the medium of instruction is not their home language. There is evidence that these students experience social and cultural difficulties transitioning from high school to university (Pascarella, Pierson, Wolniak, & Terenzini, 2004). The experience of graduating from school to university is different for each individual; however there are certain commonalities. Christie, Tett, Cree, Hounsell, and McCune (2008) state that at the start of their academic journey students query their choice of study, their academic self-confidence and their competence as they experience difficulties with unfamiliar teaching and learning methods when entering a large educational institution such as Moi University or NMMU. These anxieties are exacerbated if the students have no prior knowledge about what to expect at university, especially if they are not fluent in the academic language spoken in class. Many first generation students travel from their home towns, where they were schooled, and have to make living arrangements away from friends and family. It is not always easy for students to be integrated into the strong and stable communities that Henkel suggests are necessary for successful transition (Henkel, 2005). Rather than assuming a top-down presumption of difficulties and solutions, this study seeks to tease out the challenges students face and the possible resolutions from their own voice and experience.

The gap

The knowledge gap identified in this study is that is needed concerning first-generation multilingual education students at Moi University, Kenya, and/or Nelson Mandela Metropolitan University (NMMU) in South Africa. The aim of the study is to probe students’ perceptions of how they experience the transition from school to postsecondary academic institutions, with a view to identifying strategies and environments that could support and nurture the students.

Research design and methods:

The study will follow an interpretive paradigm where both quantitative and qualitative data are gathered through closed and open-ended questions in a questionnaire targeting the students’ perceptions of their own transition experiences. The questionnaires will be given to first generation multilingual students at Moi University and/or Nelson Mandela Metropolitan University during the second term of their study when they have experienced at least three months of student life. The questionnaires will be given to students in the Faculty of Education as the records of students will be readily available to identify whether they are first generation students whose main language is not English, the language of instruction at the universities concerned.

The closed questions will be analysed statistically to identify themes that emerge from the study cohort. The open-ended questions will be analysed for further information that could shed light on the themes that have been identified. After the questionnaire data have been analysed, interviews will be conducted with selected students in order to probe themes that emerge from the data. The data gathered will be compared with literature to ascertain similarities and differences.

How will the findings be explained?
The experience of graduating from school to university is different for each individual; however there are certain commonalities. Christie, Tett, Cree, Hounsell, and McCune (2008) state that at the start of their academic journey students feel isolated and not integrated into the strong and stable communities that Henkel (2005) suggests are necessary for successful transition. Rather than assuming a top-down presumption of difficulties and solutions, this study seeks to tease out the challenges students face and the possible resolutions from their own voice and experience within Henkel’s (2005) framework.

References

