



JY – Coalition of Africa Networks AFRICA DAY 2023

Spotlighting Africa-related research conducted by
doctoral and early career researchers in four Finnish
HEIs

University of Eastern Finland
University of Helsinki
University of Jyväskylä
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Book of Abstracts



Desalegn Zerai, Doctoral Researcher, University of Jyväskylä

Desalegn Zerai, is a Doctoral Researcher at the University of Jyväskylä, Finland and holds a M.Ed. in Educational Psychology from the University of Western Cape, South Africa, and B.Sc. in Biology from the University of Asmara, Eritrea. Zerai is a Senior Lecturer at the Asmara College of Education, Eritrea. Zerai's research interests are differentiated instruction, special education, and inclusive education.

Differentiation-related tensions in the thinking and instruction of Eritrean elementary and middle school science and mathematics teachers

Abstract

Differentiated instruction is key to accomplishing the principles of inclusive education in practice and addressing the individual needs of all students. However, the attitudes of teachers towards differentiation have been reported to be conflicting. This study explores what kinds of pedagogical tensions related to differentiation are present in Eritrean elementary and middle school science and mathematics teachers' thinking and instruction. The research data consisted of interviews and video recordings of 10 teachers. Thematic analysis of data revealed five differentiation related pedagogical tensions: (1) identifying students' individual needs versus carrying out whole-class frontal teaching; (2) authentic teaching versus content laden abstract teaching; (3) peer learning versus emphasizing individual-oriented competition; (4) creating safe and non-threatening learning environment versus stigmatization and exclusion of students; and (5) formative vs summative assessment. The study finds that some of the differentiation practices utilized by the teachers are in line with the conventional ways of advancing the practices of inclusive education, whereas some practices utilized by the participants (e.g. competition) deviate from the standard. The study brings out the need for raising teacher's awareness of the contradictory cultural discourses surrounding them. The study also argues that teachers require material and human support as well as training on research-based practices of differentiated instruction to better foster inclusion of all students in their classrooms.

Annastasia Shipepe, Doctoral Researcher, University of Eastern Finland

Annastasia Shipepe is a Namibian doctoral researcher (Computer Science) at the University of Eastern Finland, under the supervision of Dr Ilkka Jormanainen and Prof Erkki Sutinen. Shipepe is enrolled in the Doctoral Programme in Science, Technology and Computing in the School of Computing, Faculty of Science, Forestry and Technology

A design study on the impact of educational robotics in Namibia

Abstract

Various opportunities can emerge from the use of educational robotics (ER). This study aimed at exploring the impact that educational robotics have on Namibia's education system and the opportunities that can arise as a result of educational robotics. The study was grounded on Design Science Research (DSR), a reliable research methodology that is well known for its usage in solving community-based problems. The data was collected through different ER activities with children with special needs, primary school learners, secondary school learners and undergraduate students. As it can be seen in the latter, the data collection stages involved humans, therefore permission was granted to collect data for research purposes and informed consent were further obtained from the participants. Observations, interviews, focus groups, video recording and questionnaires were the methods used to collect data during the aforementioned educational robotics activities. The results show that educational robotics is at its genesis in the Namibian context however the activities are mostly growing through afterschool programs. There have been discussions in Namibia on curriculum transformation to include robotics and coding in the curriculum, therefore the study presents recommendations to practitioners in Namibia, the wider African continent, and the world at large, when incorporating robotics into the formal school curriculum. Collaboration opportunities also do arise because of educational robotics. This study opened doors to various collaboration opportunities with schools, universities and industry in Namibia, Africa, and the world at large. Furthermore, university-based and school-based robotics clubs came into existence as a result of this study.

Franklin Nyairo, Doctoral Researcher, University of Helsinki

Franklin Nyairo holds Master of Arts (English Philology), Master of Arts (Educational Sciences) and is a Doctoral Researcher at the University of Helsinki, in the Doctoral Programme in School, Education, Society and Culture (SEDUCE), Faculty of Educational Sciences. Nyairo explores teacher education, curriculum development, and instructional design. Nyairo's research interests and experience lie in educational technology, English language instruction, innovative pedagogies, and 21st-Century learning competencies.

Basic Education Curriculum and EFL Teacher Education for 21st Century Learning in Finland and Kenya

Abstract

Nyairo's doctoral research aims to investigate how student teachers in Finland and Kenya learn Technological Pedagogical Content Knowledge (TPACK) in order to fulfill the digitalization ethos outlined in national educational policies, such as the national core curriculum. Specifically, the study will review how learning goals are defined in the national curriculum frameworks, how initial teacher professional development is developed, and how preservice teachers initiate the process of designing lesson plans that integrate technology in classroom learning. Well-designed lesson plans are essential for implementing the goals of a curriculum, enhancing effective teaching, and nurturing motivated learners with the necessary skills for life and work in the digital age. The TPACK framework provides a potential roadmap for designing and implementing language teaching and teacher education in both Finland and Kenya, enabling us to meet current educational needs and 21st century skills.

The study utilizes a combination of qualitative and quantitative research methods to answer the research objectives. Initially, the study used qualitative data analysis techniques to compare and analyze the English language teaching and learning curriculum documents in both countries. The article from this study has been submitted for review. Secondly, surveys were administered to Finnish and Kenyan pre-service English teachers, and inferential statistics and correlations will be used to analyze the results. Lastly, collaborative lesson plan design using TPACK/ASSURE models will be used, in addition to focus group interviews with student teachers to review their lesson plan design.

The research project offers a unique opportunity to promote both theory and practice in curriculum implementation and English language teacher professional development in international contexts. Furthermore, this study will help establish academic research collaboration and networks between the two countries.

Cloneria Jatileni, Doctoral Researcher, University of Eastern Finland

Cloneria Nyambali Jatileni is a third-year full-time doctoral student at the University of Eastern Finland's Department of Applied Education. Jatileni is also a Global Innovation Network for Teaching and Learning (GINTL) Africa Project Researcher at the same university. Jatileni has a Master of Arts degree in Primary Education from the University of Eastern Finland and a Bachelor's Honours degree from the University of Namibia. Jatileni researches in the areas of Information Communication Technology (ICT) in and for education, digital learning for mathematics education, education technology and general mathematics education. Jatileni's research aims at bridging the gap between educational policies and practices regarding ICT integration in education. Jatileni's teaching experiences are in school mathematics and Information Communication Technology subjects.

Bring Your Own Device (BYOD) to school for mathematics learning

Abstract

Students learning subjects with personal mobile devices (PMDs) such as smartphones, laptops and tablets has led to the implementation of the Bring Your Own Device (BYOD) policy in schools worldwide. The BYOD policy is a guiding and regulatory framework for the students' PMDs utilisation within the school environment, particularly in the mathematics classroom. This study focuses on the adoption and implementation of the BYOD policy for mathematics learning in Namibian basic education. The research aims to evaluate the behavioural intentions of the key educational stakeholders on students learning mathematics with PMDs in school. Teachers and students are the key stakeholders of education and end-users of BYOD in schools. Thus, their views are crucial to its implementation in schools. PMDs use through BYOD policy has enabled students to enjoy studying mathematics everywhere, resulting in improved performance in this presumed challenging subject. While mathematics is among the most failed and feared subjects by students in Namibia, students in the Namibian basic education are not authorised to learn with PMDs in school. This study first assesses ninth-grade students' (n = 500) behavioural intentions to learn mathematics using PMDs in school. Secondly, this study evaluates the perceptions and intentions of 209 Namibian mathematics teachers on students learning mathematics with PMDs in school through BYOD. Thirdly, the study compares the differences between students' and teachers' intentions towards BYOD for mathematics learning in school. The participants are from Omusati and Khomas. Students' data were collected from 12 schools through a paper survey while teachers' data were collected through an online self-administered survey.

Anne Abio, Doctoral Researcher, University of Turku

Anne Abio is an epidemiologist/ public health specialist interested in conducting public health research with a focus on data management and analysis. She has at least 10 years of experience in public health and epidemiological research. Abio's work includes but is not limited to injury epidemiology, mental health, epidemiological reviews through systematic reviews, and epidemiology studies in resource limited settings. Abio is currently a Doctoral Researcher at the University of Turku and focuses on the trends in external causes of mortality. Abio holds a Master of Public Health from the University of Nottingham, United Kingdom.

Trends of external causes of mortality in the Seychelles

Abstract

Injuries are a leading cause of mortality in low income countries. However, injury data from the African region is scarce. The aim of the research was to estimate the scope of injury mortality in Seychelles. Mortality data from external causes in Seychelles was extracted from the Civil Registration and Vital Statistics system from 1989 to 2018. Deaths in Seychelles are medically certified and the population is regularly enumerated. The death certificates included four fields for underlying causes of death. Injuries contributed to 8.5% of the total deaths, while by sex, and the mortality was 4-5 times higher among males compared to females. The age standardised mortality rate was 25.4 and 105.5 for females and males per 100 000 person-years respectively during the 30 years. Apart from external deaths from undetermined causes (females 2.4, males 14.6) and "other unintentional injuries" (females 8.0, males 14.1), the leading external causes of death in 2009–2018 were road traffic injuries (4.6), drowning (3.4) and poisoning (2.6) among females; and drowning (25.9), road traffic injuries (18.0) and suicide (10.4) among males. Mortality from broad categories of external causes did not change consistently over time but rates of road traffic injuries increased among males. External causes contributed approximately 1 in 10 deaths among males and 1 in 20 among females, with no marked change in cause-specific rates over time, except for road traffic injuries. These findings emphasise the need for programs and policies in various sectors to address this large, but mostly avoidable health burden.

Herman Lule, Doctoral Researcher, University of Turku

Herman Lule is a board-certified general surgeon from Uganda and Doctoral Researcher at the University of Turku and Turku University Hospital. Cited more than 1500 times, his research interests lie with in the global health domain of addressing health care inequities amongst the most vulnerable populations. His doctoral research focuses on improving outcomes of patients who sustain road traffic injuries in Uganda through building skills and capacity amongst medical trainees and developing trauma registries. Herman is a member of the Association of Academic Surgery (USA), Public Health Association of Australia and Association of Surgeons of Uganda.

Feasibility of rural trauma team development training amongst medical trainees and law enforcement professionals in a low-income country: Addressing the shortage of human resource for health in Africa

Abstract

Research shows that team formation could potentially improve effectiveness of injury care in rural settings. The aim of this study was to determine the feasibility of the use of medical trainees and law enforcement professionals in the formation of rural trauma teams in Uganda. This cross-sectional study used the 4th edition of rural trauma team development course© model. Pre-and post-training multiple choice questions (MCQs) were administered. Acceptability for promulgation and relevancy was evaluated on 5- and 3-point Likert scales respectively. The median MCQ scores (interquartile ranges) were compared before and after the training at 95% CI, regarding $p < 0.05$ as statistically significant. Triangulation with open ended questions was obtained during expert feedback on team performance.

A total of 500 participants including: 13.2%(n=66) traffic police officers, 6.0%(n=30) intern doctors, 28.0%(n=140) fifth year and 52.8%(n=264) third year medical students were trained. The overall median pre- and post-test scores were 60%, IQR(50-65) and 80%, IQR(70-85) respectively. Wilcoxon signed rank test showed that overall, the mean difference between pre- and post-test scores was statistically significant ($z=16.7\%$, $P|z| = < 0.0001$). Most participants 77.8%(n=389) strongly agreed to promulgation, relevance to their educational 81.0%(n=405), and work needs 79.8%(n=399). All the course elements scored above 76% as being very relevant.

This study demonstrates that rural trauma team development training had a positive effect on the test scores of course participants. The training is feasible, highly acceptable and regarded as relevant amongst medical trainees and law enforcement professionals who provide first-aid to trauma victims in resource-limited settings.

Aynalem M. Gemechu (PhD), Visiting Researcher, University of Helsinki

Dr. Aynalem Megersa, Assistant Professor, Gender and Development, Center for Gender Studies, College of Development Studies, Addis Ababa University, currently a visiting scholar at University of Helsinki through its the Africa Early Career Mobility Programme (until 31.5. 2023). Focus areas of study: Girls' education, women's employment and empowerment, women's work and family, Gender and migration.

The Status of Women and Gender Studies in Ethiopia: A Critical Reflection

Abstract

The institutionalization of women and gender scholarship in Ethiopian higher education begun in the early 1990s. The Center for Gender Studies (CGS) of Addis Ababa University is the first gender-focused teaching and research center within the higher education system in Ethiopia. Taking the case of Center for Gender Studies of AAU, the study explored the major contextual factors that contributed to the institutionalization of women's and gender studies in Ethiopian Universities. It also explored some of the impasses, contestations and daily struggles as well as the various transactions and negotiations required in maintaining the center. The study employed qualitative research methods; specifically in-depth interview and document review. The findings of the study indicated that a major contribution of CGS has been its pioneering role in building a body of knowledge on women and gender in Ethiopia through teaching, conducting research and publishing as well as documenting women's and men's experiences. Ever since its launch, the center has produced a large number of educators and researchers and development practitioners in the country. The center has faced a number of challenges which are simultaneously internal and external and institutional and intellectual.

Quivine Ndomo, Doctoral Researcher, University of Jyväskylä

Quivine Ndomo is working on her PhD in Social Policy on the labour market integration of highly educated African migrants in Finland, using biographic methods to research workplace discrimination and labour market segmentation and problematising the notion of migrant agency for specific migrant groups. Ndomo has authored or co-authored a number of peer reviewed book chapters on labour market experiences of migrants and internationalisation of higher education in Finland. Ndomo has worked in national and international research consortia on internationalisation, mobilities, and migration, including a project of the Ministry of Education and Culture of Finland (FinCEAL Plus BRIDGES), the H2020 SIRIUS project, and the European Commission's DG Employment funded SMUG project.

Why many highly educated African migrants in Finland are boiling and zombie frogs!

Abstract

There are two predominant migration pathways for African migrants seeking entry into Finland: international protection, and studies. Because the structure of Finland's legal status regime, these two groups of migrants have significantly different starting points on arrival in Finland and opportunities in terms of integration, however, the outcomes are largely the same. Black African migrants are the most poorly positioned both socially and economically, in Finland and thus yield the poorest integration outcomes (see e.g., Jaakkola, 2000; Valtonen, 2001; Heikkilä, 2005; Ahmad, 2020). Race, ethnicity, nationality, gender, culture, religion, and many other ascribed and acquired social positions that African migrants engender intersect differently to place them at the margins of Finnish society often not because of lack of trying to integrate on their part. In this presentation, Ndomo will use a theory of economic citizenship to explore the position of highly educated African migrants in the segmented Finnish labour market to try and explain why this demographic is more likely to turn into boiled frogs and not unicorns after decades of living and working in Finland.