PROFESSOR JOANNA MASINGILA'S PAST AND PRESENT PROJECTS

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Abstract

In this article we discuss some of the various projects that Professor Joanna Masingila has conducted and their influence. These projects for example span universities, schools, churches and hospitals. Through her leadership in several projects, numerous African learning institutions, societies, scholars and students plus their families have been positively impact, especially Kenya. Similarly, Americans and the world broadly have benefited.

Keywords: Prof. Joana Masingila, Collaboration, Kenyatta University, Syracuse University

Introduction

Prof Joanna Masingila is a mathematics educator, a Meredith Professor for teaching excellence and is currently the Dean of Education at Syracuse University (SU). Prof Masingila as she says, wears many hats. The amazing wonder is how well they all fit her head: a wife, a mother, a friend, a Christian, an educator, a researcher, a leader and truly a global citizen. Due to opportunities available to her at an early age, she has grown to have great value for the global community. Her love story with Kenya started when she met Adamson Masingila during her early college days as a student in the United States. They later got married in the early 80s and she visited Kenya for the first time in 1984 and in 1989 she spent 7 months at Kenyatta University (KU) as a Fulbright Scholar. During this Fulbright visit, she was in the company of husband and children. This visit provided a great opportunity in that many relationships were formed with both students and faculty at KU and especially those at the Department of Educational Communication and Technology (Comm-Tech). Thus begun her annual trips back and forth between KU and SU.

These alliances have not only weathered the times, they are the foundation of many opportunities for both the students and their teachers. In the year 2000, a formal collaboration and linkage opportunity with Kenyatta and Syracuse University was signed. This was renewed in 2006 and also in 2014. The memorandum of understanding allows a wide range of collaboration and synergistic activities to be conducted. Each writer herein has been involved in at least one of these projects and will share some experiences: a) research grants on technology, b) Kamanzi Village, c) teaching and research resources, d) Masingila's airlift: assistantship opportunities galore

Research Grants on Technology

In 2011, Comm-Tech department -KU in collaboration with SU - School of Education, successfully worn a grant of $1,212,000 funded by United States Agency for International Development, through the Higher Education for Development (USAID/HED) for university partnership where Prof Joanna Masingila and Prof. Agnes Gathumbi of KU were the principal investigators. Several activities have been conducted under this project whose key foci were quality teacher preparation, workshops on active learning, technology integration in teaching, multi-media case studies, and technology support for visually impaired students in KU as well as in secondary and primary schools in Kenya.

Scholar exchanges were part of the partnership that saw 11 KU researchers spend 2 months at SU and 9 Syracuse researchers also spend time at KU. Findings from the co-authored research findings were published in 6-10 journal articles. Education technology material was procured for the Comm-Tech department—a laptop for each of the 26 staff members, an interactive white board which was the first one at KU, smart TV, printers, photocopiers, ipads, LCDs. In addition assistive technology for visually impaired students of Kenyatta University and training in their use was provided. Also visually impaired students in secondary and primary schools in Kenya were beneficiaries of the technology.

Assistive technology initiative for students with visual impairment

Prof. Joanna Masingila and Dr. Alan Foley spearheaded the assistive technology initiative for student teachers at KU for the visually blind in collaboration with other colleagues. The project focused on improving teacher education for all learners through the use of technology.

In summer 2012, the lives of four students with visual impairments changed when they were given lightweight mobile digital devices with built-in screen readers. They received iPod® mobile digital devices and a wireless keyboards. Not only did the students receive the devices, they were also trained on how to navigate and handle them as shown in Fig 1 below:

Fig 1: Prof. Alan Foley with one of the beneficiaries during a training session

For students with visual impairments (VI) at KU before assistive technology project, attending class meant a lot more than walking into class, attending lectures and taking notes and or working on assigned tasks.

- Students with vision impairment were compelled to carry around heavy manual braille machines to all their classes since it was the only way they would take notes, work on assignments and write their exams.
- Braille papers are very bulky and this added to the weight off the already heavy braille machines.
- A day in the life of a student with profound blindness meant a white cane in one hand, a braille machine in the other and a bag full of braille paper hanging over or across the shoulder.
- There was need for the institution to have a braille center that was responsible for brailing the exams and assignments from print to make them accessible for the students.
- After the students sat for the exams, personnel were required to de-braille the students' responses to make the braille prints accessible to the examiners.
- Those who have experienced the use of braille machines can relate to the loud noise all the class participants had to put up with. This can be very disrupting to the learning process.
- There was also a shortage of trained personnel to braille and de-braille the scripts which meant the grading process was delayed.
- Students with VI encountered another milestone when preparing for exams since all revision papers were in print.

The works of Prof. Masingila and Prof. Foley have therefore brought about a paradigm shift in the way student teachers with VI go about their lessons, study groups, exams and communicating with the international communities. These students have been freed from a culture of challenges, inaccessibility and limitations to that of hope and possibilities for all stakeholders—the workload of these students' professors and other multidisciplinary team were greatly reduced.

The HP catalyst initiative project

Another collaborative and impactful project that Professor Masingila has been involved with in Kenya was a project on *Using Technology to Support Teacher and Student Conceptual Learning in Mathematics and Science.* This was a $130,000 project supported by the Hewlett-Packard (HP) Catalyst Initiative, through the HP Innovations in Education Initiative from the HP Office of Global Social Innovation. US$100,000 was dedicated to technology equipment.

The two-year project brought together colleagues from the Departments of Chemistry, Mathematics, Physics, and Biological Sciences at Kenyatta University, the National ICT Innovation and Integration Centre (NI3C) in the Ministry of Education, and mathematics and science education colleagues from Syracuse University, California State University–Fullerton, and California State University-San Marcos. They worked with and engaged in-service teachers at two national schools and over 300 preservice teachers in exploring mathematical and scientific concepts through the use of HP science teaching equipment such as MCL Science Probe Kits, HP Graphing Calculators, computers and education programs.
The project objectives were to:

- Support mathematics and science teachers in Kenya in integrating technology as a teaching and learning tool into their classrooms,
- Support mathematics and science teachers in Kenya in developing deep and connected content and pedagogical content knowledge, and
- Build connections in Kenya between preservice teachers' preparation and teachers' work in schools allowing for coordinated monitoring of unpacking of STEM content for learners.

The teachers participated as learners modeling the scientific inquiry process and problem-solving process. The teachers used the technology as a vehicle for active engagement in understanding science concepts and actively engaging their students in scientific inquiry and investigation of science concepts through instructional tasks.

The project also engaged 300 pre-service mathematics and science teachers and 8 in-service high school teachers in an exploration of ways to more effectively develop mathematical and scientific curriculum. All participants

attended workshops to learn how to use Tablet PC technology, prepared and shared classroom tasks with each other, and collaborated on techniques to incorporate technology in the scientific inquiry and problem-solving process. The primary purpose of the training was to employ the technology as a means of fostering more comprehensive understanding among students.

The HP project provided

- US $100,000 worth of equipment and technology to Kenyatta University
- Infrastructure development in form of an Educational Technology and Pedagogy computer lab for preservice teacher training
- Curriculum revisions to incorporate ICT integration
- Professional development for 21 STEM and educational faculty, eight high school teachers and 300 pre-service teachers
- Student learning opportunities for approximately 960 students in two high schools

Service at Kamanzi Village

Kamanzi is a remote village in rural Kenya and the home of Patrick Kimani, a student that Prof Masingila met early on in her days at Comm-Tech. This network led to the building of new classrooms, library, and playground in the primary school for a needy and impoverished community. In this educational gesture that would see the lives of many young lives changed for good, Prof Masingila also supported the school through professional teacher development for practicing teachers. She not only fundraised for the school buildings but also for the training workshops in which she worked with colleagues from Kenyatta University in Comm-Tech department. Apart from academia, the Kamanzi Church and dispensary advanced as well. Different cohorts of Americans, both the young and the old, also travelled during summer to participate in Kamanzi Village renovations, trainings as well as immerse themselves in a different culture.

Teaching and Research Resources

Through generous donations of journals and textbooks to Comm-Tech, faculty, students and staff have received appropriate and most updated research and teaching resources. Prof Masingila brings these along with her during her yearly summer visits to the department. Additionally at times she arranges for a large shipment, which often entails organizing fundraisers in the USA to cover the shipping fees and charges.

The International Conference on Education (ICE)

Another example of Professor Masingila's effort is with the recurring collaborative and networking work via the *International Conference of Education* held at Kenyatta University every other year. As a result of partnership between SU and KU, the ICE was established with a

strategic plan of building capacity in teacher education. The first ICE conference was hosted in KU's main campus on July 8-10, 2009 and was co-sponsored by the School of Education, SU. Since then, the conference has been held every other year (2011, 2013, 2015, 2017) with participants from different parts of the world and mainly from SU, KU and other universities in East Africa. The themes of the conferences focuses on issues in teacher education, among them (i) Teacher Education in Contemporary Society, (ii) Building Capacity Through Quality Teacher Education, (iii) Technology, Teaching and Learning: Theory and Practice, and (iv) Quality Education for Societal Transformation.

Prof Masingila has continued to play a key role in making the conference a success in collaboration with her colleagues, and has been a keynote speaker in a number of the ICE biannual meetings. Through her commendable facilitation, the ICE has become a platform for professional networking, collaboration, and student mentoring. Through networking, opportunities to study abroad have been made available. A number of masters and doctoral students from East Africa have received scholarships to study in the United States.

The conference stands out from other conferences in that it does not only provide an opportunity for scholars to present their academic and research work, but has also been a limelight of scholarly guidance to graduate students. This scholarly guidance is made possible through the introduction of the preconference and doctoral workshops, which are products of the ICE. The pre-conference and doctoral workshops are held before the main conference for postgraduate students and doctoral graduate students respectively. Through the workshops, doctoral students have had chances to interact, present and exchange feedback on their research work with their fellow students and professors. This feedback has enhanced polishing up of ideas in readiness for dissertation projects, conference presentations, and publication. The latest pre-conference workshop, for the 5th International Conference on Education, 2017, provided graduate students with an opportunity to learn on how to write for publication.

Furthermore, through the workshops doctoral students work closely with professors and even co-present with them. By working closely with these professors, doctoral students get professional, first-hand experience of writing and presenting research work in academic forums. They also gain personal skills on how to improve their own work and obtain mentoring services. The interactive sessions and working groups in the workshops enhances doctoral students' deeper understanding on how to write good research questions, literature reviews, theoretical frameworks, research design, and get educated on features that help simplify their research work, e.g., how to develop

tables of contents and how to reference using latest software applications.

As it stands, the ICE is exemplary, has life, and is continuing to give light and direction to many upcoming scholars and existing graduate students. These are young stars whose services are highly needed in Africa, the USA and the world at large (ICE, 2009-2017)

The Masingila's Airlift: Assistantship Opportunities Galore

Since 1999 to spring 2017, thirty-one East African graduate students have joined the School of Education at SU under Prof Masingila's stewardship. In addition, she is available and supports additional East African students admitted to SU through other pathways as well as other foreign-born students.

Prof Masingila made the impossible doable since many of these 31 students could not afford to pay the tuition at Syracuse University, or pay for graduate school application fee. Further, she has taken time when in Kenya to visit remote villages where these students' families live. It does not matter that most of them come from poor backgrounds where nice houses and nice food is only heard about in modern folk tales.

She advised each one on the nitty-gritty things such as how to complete some lines of the application form in order to win graduate assistantship, personal issues, financial issues, to being a dissertation advisor to some, at the same time staying professional through it all. Also, she assimilates these students in her vacation time such as Easter, Thanksgiving, Summer, Christmas and New Year's celebrations or into her varied locations of interest i.e. Hershey, Beaches, Niagara Falls to make them feel at home away from home.

Out of the 31 graduate students, 25 have received one or two degrees and the rest are in progress with the exception of one graduate who earned three degrees. Table 1 lists these students in a chronological order from the first admission to SU in 1999-2000 to 2016-2017 academic year.

Table 1: The 31 East African Students by Name

(1) Leonard Kamau, (2) Patrick Kimani, (3) Gipson Masayi, (4) Moses Ochanji
(5) Penina Ogolla-Kamina, (6) Levi Molenje, (7) Alfred Ng'ang'a, (8) Mary Owuor
(9) Carol Kuria (10) Benard Nzimbi, (11) Francis Nzuki
(12) Nyaboke Nduati (13) Dennis Kwaka
(14) Fred Odindo, (15) Grace Orado, (16) Beatrice Mathenge, (17) Bernard Mugo (18) Calvin Osinde (19) Michael Waititu,
(20) Peter Rugano Nthiga
(21) John Mungai Njoroge, (22) Grace Njuguna, (23) Stella Rwanda,
(24) Inviolata Sore, (25) Agnes Wanjau
(26) Fredrick Ssempala, (27) Victoria Wambua
(28) Joash Geteregechi
(29) Crispin Ojwang, (30) Mitchelle Wambua, (31) Anne Waswa

Majority of the students enumerated in Table 1 have graduated and are working either in the USA or in their homeland leaving a positive mark on others. A few are still undergoing graduate education at Syracuse University and more are yet to join in the future.

Though Prof Masingila is different racially from the students' in the airlifts or from the Kamanzi villagers or from colleagues at Comm-Tech department, she does treat people of color with such high regard, love and compassion. She lives what she says she is, a friend of the world, and she has proven it. She has created communities, where *Black Lives Matter*. People are just people with the same needs, the same concerns—no matter their community.

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