Trainings and Recommendations on Using Multimedia Case Studies in Preparing Pre-service Teachers

Kenyatta University and Syracuse University*: Africa-U.S. Higher Education Initiative Partnership

Building Capacity Through Quality Teacher Preparation

Policy Brief 14-05-KUSU

Darling-Hammond (2006) argued that the most influential process on a nation's education system is its teacher education program. In Sub-Saharan Africa (SSA), pre-service teacher (PST) education is judged to be in need of improvement. According to some, the teacher education programs do not seem to adequately prepare teachers for the conditions they face in the field (Hardman, Abdi-kadir & Tibuhinda, 2012). The poor quality of teacher education has been attributed to the predominantly lecture–based instructional practices, examination-oriented teaching culture, the obsession with paper qualifications (Hardman et al., 2012), a very theoretical curriculum, and the inadequate supervision of practical field practice by teacher educators (Akyeampong, Lussier, Pryor & Westbrook, 2013).

Shulman (1992) argued that the traditional lecture and textbook methods breed "inert ideas fated to clog and suffocate good minds" (p. 1) of learners. He further suggested the use of cases methods (written descriptions or video recording of actual classroom interactions) in teacher preparation to address these gaps in quality of teachers. Shulman (1992) argued that cases are more engaging, exciting, stimulating, and likely to "bridge the vast chasm between principle and practice" as well as help "neophytes learn to think like a teacher" (p. 3).

According to Merseth (1996), a case is a descriptive research document based on a real-life situation. It attempts to convey a "balanced multidimensional representation of the context, participants and reality of a situation" (p. 726). Merseth recognized that recent cases have gone beyond text representation and have incorporated promising innovations like use of other media, including video and computers. Such technological innovations allow developers to present the cases materials through multimedia or hypermedia. She further defined case methods as the many ways that cases are used in teacher education to frame conversations between mentors and novices, stimulate reflection, enrich field experiences or orient novices to particular ways of thinking.

Challenges in Using Case Methods in SSA

The environment for implementing case methods in SSA is complicated by the large number of students enrolled at all levels of education. In Africa, massification of higher education has occurred mainly because of improvements made to primary and secondary education levels, resulting in a large cohort of graduates seeking access to higher education and the realization that higher education is critical for economic development (Mohamedbhai, 2008). Mohamedbhai noted that this increase in enrollments at higher education has not been accompanied by a corresponding increase in resources and, consequently, there is tremendous strain placed on both infrastructural and human resources.

Creating Multimedia Case Studies in Kenya

Through the KU-SU partnership, we have created thus far a total of 19 video lessons that were filmed in Kenyan secondary school classrooms over a period of two years. The video lessons include two English lessons, one German lesson, three biology lessons, three chemistry lessons, five mathematics lessons, and five physics lessons. The lessons include one where students are doing a lab, one where students perform a skit in an English class, and the rest where teachers use technology to teach.

All of these lessons were ordinary day-to-day lesson that teachers execute, and closely mirrored the expected workspace that PSTs would find themselves in during their field placement. They did not involve any scripting or preparations for filming, so when students were talking, the clarity of the sound was compromised since only the teacher wore the microphone. The videos were transcribed and subtitled for clarity. Editing was done to reduce redundancies. The flow of the lesson and the total content was not altered. We prepared a synopsis and some proposed facilitator's guiding questions for each of the multimedia case studies.

These multimedia case studies are now located on a website, *Multimedia Case Studies in a Kenyan Context: Reflections on Teaching and Learning in Kenyan* Classrooms, and can be accessed at: http://kenyammcs.syr.edu, with a password of KUcases$.

Workshops on Using Multimedia Case Studies

Since the vast majority (16 out of 19) of the 19 multimedia case studies are mathematics and science lessons, Prof. Joanna Masingila and SU science education doctoral student Peter Rugano, led two days of workshops in June 2013 and one day of workshop in June 2014 with mathematics and science teacher educators in the Department of Educational Communication and Technology. Peter is a former Nairobi School physics and chemistry teacher and worked with the filming of some of the video lessons.

The first two days of workshops were to introduce the mathematics and science teacher educators to multimedia case studies, provide a rationale for using them, discuss how cases might be used, and how one might facilitate using cases with pre-service teachers. Workshop participants were introduced to several frameworks for viewing multimedia case studies, given time to explore, and then there was group discussion. The remainder of the two-day workshop was spent with the teacher educators working in subject-area teams to view the multimedia cases in their subject and choose portions of the cases that they would use in teaching their subject methods courses. Each team developed a set of work plans that they shared with the whole group at the end of the second day.

The one-day workshop in June 2014 was to revisit the teacher educators' plans for using the multimedia case studies in preparing pre-service teachers, and to plan further for use with master's level courses of in-service teachers.

Based on the creation of the multimedia case studies and the professional development conducted through this project, we make the following recommendations:

- **Recommendation #1:** Multimedia case studies can be an important tool for engaging pre-teachers in reflecting on and discussing actual lessons and the practices of teaching.

- **Recommendation #2:** Teacher educators need technical support from the university in putting the multimedia case studies on servers where pre-service teachers can access and view them prior to coming to class.

- **Recommendation #3:** Teacher educators should work with in-service teachers to prepare further lessons that they want to develop into multimedia case studies to achieve particular purposes.

References

Akyeampong, K., Lussier, K., Pryor, J., & Westbrook, J. (2013). Improving teaching and learning of basic maths and reading in Africa: Does teacher preparation count? *International Journal of Educational Development*, *33*(3), 272-282.

Darling-Hammond, L. (2006). *Powerful teacher education: Lessons from exemplary programs*. San Francisco, CA: Jossey-Bass.

Hardman, F., Abdi-Kadir, J., & Tibuhinda, A. (2012). Reforming teacher education in Tanzania. *International Journal of Educational Development*, *32*(6), 826-834.

Merseth, K. K. (1996). Cases and case methods in teacher education. *Handbook of Research on Teacher Education*, *2*, 722-744.

Mohamedbhai, G. (2008). *The effects of massification on higher education in Africa*. Report from the Working Group on Higher Education of the Association for the Development of Education in Africa. Retrieved from http://www2.aau.org/wghe/scm/meetings/mai08/adea/study_massification.pdf (accessed on 20 November 2013).

Shulman, L. (Ed) (1992). *Case methods in teacher education*. New York, NY: Teachers College Press.