

# Practicing Active Learning: Interactive Courseware for Continuous Professional Teacher Development in Africa

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In many African countries today, improving the quality of teaching in primary education is associated with the implementation of so-called Active Learning Methods (ALMs). ALMs emphasise the role of teachers as facilitators rather than deliverers of information. In general implementation is challenging and training programmes designed to prepare teachers for this new practice have failed to produce sustainable results (O' Sullivan, 2005; Serbessa, 2006; Schweisfurth, 2011). Various researchers describe how values of the new pedagogy may conflict with traditional cultural understandings of authority structures, obedience etc. (Pontefract & Hardman, 2005; Serbessa, 2006). Others discuss how cascade models that are applied to reach large scale changes efficiently, often prove ineffective as the training dilutes going down the cascade (Gilpin, 1997; Hayes, 2000). According to Hayes the real problem of the cascade model is the concentration of expertise at the top in combination with a transmission mode of training. Trainers and trainees should be given active and constructive rolls at all levels in order to make change happen.

With these challenges in mind, the interactive courseware 'Practicing Active Learning' has been developed. This was done by a group of teacher educators of the University of Amsterdam following the pilot project of BEQUIP (Basic Education Quality Improvement Programme) in Ethiopia. BEQUIP was initiated by the Netherlands' NGO Edukans. The courseware was designed as a practical tool to engage primary school teachers in Sub Saharan Africa, primarily Ethiopia, in guided and independent practice with the content of Active Learning (AL). This was

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to be included in pre-service and in-service training offered by local teacher educators supported by education professionals of the Addis Ababa based Development Expertise Centre (DEC). By now the courseware has been adopted as a training tool in similar Edukans / University of Amsterdam projects in Ghana, Uganda and Rwanda. This paper discusses the experiences in Ethiopia and Ghana. In Northern and Eastern Ghana, IBIS Ghana has been responsible for facilitating in-service training with a central role for the courseware from 2013-2015. The classroom films included in the courseware were predominantly Ethiopian. Some Ugandan and Rwandan clips were included, but none from Ghana.

The courseware demonstrates filmed local practice of Active Learning in primary schools, elicits understanding and practice through observation and reflection questions and offers background reading material.

#### *Courseware: context and aim*

'Practicing Active Learning' includes 10 active learning modules each highlighting a specific topic (e.g.: worksheets, textbook use, group work). The design of the courseware is founded on research of meaningful learning with technology (Howland et. al, 2012), the variation theory of learning (Oliver & Trigwell, 2005) and the use of video for professional learning of teachers (Borko, 2004). Assignments can be practiced by (student) teachers individually, in pairs or groups of three or four. Learning activities include watching and discussing strong and weak points of actual classroom practice together, redesigning lessons etc. The modules follow a step-by-step pattern which enables students and tutors to progress in a well-considered way.

#### *Research: aim and context*

This study discusses the use of this courseware for in-service training facilitated by teacher educators in Ethiopia and Ghana. To investigate the quality of the design and deliverance of the training, data were collected during the preparation and implementation of in-service training conferences by teams of local teacher educators of the rural North of Ethiopia in 2013 and in the

rural North and East of Ghana in 2015. In both countries, the full cycle of trainers' activities, from design to evaluation of the training was followed in detail. The structure of these conferences was similar in the two countries. Teams of 3-4 trainers were appointed to design and carry out training sessions for 20-30 teachers in which the courseware would be used as a central tool. The data consisted of: detailed scripts of the training sessions designed by 7 trainer teams, observations of these sessions, interviews of the trainers, trainers' evaluation reports and teachers' reports of on perceived learning outcomes.

To compensate the lack of Ghanaian video clips in the courseware, Ghanaian trainers visited classrooms to film local examples of Active Learning. They then selected appropriate videos to be used in specific areas of training. In practice they would replace the Ethiopian or Ugandan courseware videos by local videos without changing the courseware assignments.

The first group of criteria defined to determine the quality of design and deliverance of the training are related to *preparation* measures. These include the question whether or not basic conditions (room, electricity, computer set-up, etc.) are taken into account. Other criteria in this group are related to the educational/pedagogical design of the training. Are objectives, learning activities and assessments aligned? Have trainers planned for clear learning and instruction activities? The second group of criteria has to do with *practice centeredness*. This contains three criteria: sufficient time for trainees to practice independently at their computer workstations, planned guiding / scaffolding activities by instructors during this independent work and a variation of active learning activities to be carried out by the trainees.

### *Results & Conclusions*

What became obvious in Ethiopia, is that in preparing a training, tutors are not used to paying a lot of attention to basic conditions. Although tutors were creative in solving things on the spot, this had a negative impact on the trainings that were carried out (e.g.: loss of training time).

Secondly, although the training designs by the tutors were highly participatory, in practice they

fell back on their traditional lecturing style. Most tutors found time management the most challenging issue of this training.

The actual working with the courseware on the workstation made for an intense learning experience by the teachers. They learned a lot by viewing and reviewing films of other teachers applying ALMs and discussed these vividly with their colleagues at the computer station. A majority of teachers reported the impact of viewing and discussing videos to be very large. Tutors are excited about the potential of this tool for their teachers and their primary school students, but some tutors experience discomfort not knowing if and how to intervene at the discussions at the computer stations. They are inclined to guide the learning activity towards a whole class discussion.

In Ghana the facilitation of meaningful discussions after having viewed locally produced video clips proved challenging. The trainers often stuck to the questions stated in the courseware programme even if they weren't relevant in the context of the demonstrated practice. The original courseware films (from Uganda or Ethiopia), even though English spoken, had the disadvantage that teachers often did not understand the language/ accents of the teachers. The Ghanaian tutors strongly recommend the integrating local classroom video in the courseware.

In both Ghana and Ethiopia interviews reveal that the courseware 'Practicing Active Learning' served as a central source of reference material and a guide to the trainers. All they need to know about Active Learning in order to prepare themselves as trainers in one place. In Ghana the trainers report that the courseware helps to structure and organise the preparation of their training. Also, each trainer reported that (s)he had become confident with working with this ICT-tool.

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