Connectivism, Self-directed Learning and MOOOCs in Teacher Professional Development

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Dr Betty Ogange
Education Specialist: Teacher Education, Commonwealth of Learning (COL), Canada

Distinguished colleagues, thank you for the invitation to be part of the AFTRA Conference of 2023. Due to the demands of work, I am unable to be part of the in-person experience in that beautiful country, Namibia. I am, nonetheless, privileged to be a virtual presenter at this conference.

My name is Betty Ogange. I work for the Commonwealth of Learning (also known as COL) and I am joining you from Vancouver, Canada. Please accept warm greetings from COL President and CEO, Professor Asha Kanwar. May I first of all tell you about COL. As many of you may already know, COL is an intergovernmental organisation that works in 56 Commonwealth Member States, 21 of which are in Africa. Our mission is to help Commonwealth Member States and institutions use distance learning and technologies for expanding access to education and training.

My presentation today outlines the findings documented in an upcoming paper titled *Connectivism, Self-Directed Learning and MOOCs in Teacher Professional Development*, based on work done in collaboration with Professor John Traxler of the University of Wolverhampton, UK.

We begin by asking: What kind of teacher training is needed to 'build back better' after Covid-19? Teachers must be digitally fluent to facilitate learning which is engaging and caters to the diverse needs of students in schools that are safe and inclusive. We ask further: What have we learnt with regard to teacher training during the pandemic?

First, we have seen that purely online options do not work for everyone. The future will be a blend of online and in-person approaches, using a range of technologies that are affordable, accessible and available.

Second, as the pandemic forces governments to cut back on resource allocations, we will need to look for cost-effective solutions to bring quality learning for all. Mainstreaming Open Educational Resources (OER) by building the capacities of teachers and preparing learners on how to find, use and share OER could be

another way forward for access to quality content.

Third, we have seen a huge rise in self-directed learning during the pandemic, as is evident from the phenomenal increase in enrolment in massive open online courses (also known as MOOCs). We can build on these foundations to promote transformational and innovative teacher development.

I would like to highlight some of the key concepts in the study.

Innovation: What is innovation? In this report, we attempt to connect transformational teacher development and innovation. Our understanding is that innovation may refer to "…new educational products, processes, strategies, or approaches that improve significantly upon the current state, and are scalable". Innovation as Institutionalisation may refer to "…an initiative supported by government actors."

Connectivism fosters a dynamic learning environment. It highlights the importance of networks and connections in the learning process. In the context of teacher professional development, it can help educators, particularly in Africa, to adapt to rapidly changing educational landscapes by connecting them with relevant knowledge and resources.

Another concept is **self-directed learning**, which promotes teacher autonomy. Teachers involved in self-directed learning take charge of their professional development by setting goals, identifying learning opportunities, and evaluating their progress. This can lead to a more empowered and motivated teaching workforce.

MOOCs (which stands for massive open online courses) provide access to high-quality resources, and can offer teachers access to educational content from renowned institutions and experts worldwide. This can, in turn, help bridge the gap between local resources and global best practices, enhancing the quality of teaching in the region.

Let's now look at the methodology of this study.

We gathered data through analysis of data from course evaluation, enrolment figures, completion and participation statistics, and end-of-course surveys across 5 courses developed and or offered with COL support. Additionally, the study considered the MOOC platform structure, content delivery, and learner experience. The review explored potential issues and limitations in the current platforms and courses, while suggesting possible improvements and alternatives.

It should be said at the outset that all the course evaluations reviewed were very comprehensive. We found out that there are obvious benefits to having a common course survey and a common format and layout for the subsequent evaluations.

In some instances, respondents were allocated an arbitrary anonymous identifier used across pre-course and post-course surveys. This gave valuable longitudinal insights about progress and perceptions.

If this could be cross-referenced against individual usage data from the platform, this would increase the value of the data considerably. Even as it stands, the data has considerable potential for finding meaningful correlations especially as the sample sizes would inspire confidence in these.

The findings of the study suggest that **discussion forums and support by teacher mentors** helped to promote collaborative learning opportunities in the MOOCs. By fostering connections between educators, these approaches helped create communities of practice and promote the exchange of ideas and expertise across cultures and countries.

The MOOCs allowed for **self-directed learning,** as the teachers engaged in professional development at

their own time, at their own pace and according to their individual needs. This flexibility can help reduce barriers related to time, location, and institutional constraints.

In terms of addressing diverse learning needs, some participants developed **personalised learning experiences** for themselves, including what aspects of the course to respond to.

Teachers reported an **increase in their digital literacy skills**, which are increasingly important in the 21st-century classroom. By improving their digital competencies, teachers can better integrate technology into their teaching practices and promote digital literacy among their students.

For MOOCs to work for self-directed learning in teacher professional development, a number of recommendations were made.

Firstly reading across the **enrollment data** from the courses provided many useful insights, as the courses all had enrolments that are large enough to make some valid inferences if the appropriate statistical techniques are used. Looking at enrolment figures, either for historical trends in any one course or for comparison amongst and across different courses, turned out to be of little value.

It emerged that **completion and participation statistics should be understood** in the light of feedback about connectivity, access, timing etc. Otherwise, any measures of course completion can be misleading, as can statistics on 'drop-out', since those learners with a specific objective may achieve that objective and leave. Others may find a difference between their expectations, or advertising, in advance of the course and the experience of its content, style, pace and level.

End of course surveys were found to be not entirely reliable. They will always have several weaknesses drawing as they do on respondents that are firstly, learners who finished the course, secondly learners who self-selected to respond to the survey and thirdly people who chose to join the course and as opposed to people in the target population who chose not to join. There are also learners who joined the course for whom it was not intended or designed but who may nevertheless have still completed the survey.

In some respects **the free text responses,** especially 'Tell us your story', may be of more use than bulk quantitative data since they illustrate the breadth and diversity of learner situations and contexts. Any more formal analysis would require access to raw data and whilst quotes may indicate diversity, they did not give much sense of consensus.

The courses are currently open and freely accessible but are targeted at practising teachers. There is a risk that **non-teachers will enroll and then drop out** when they realise their error in enrolling in a teachers' course. There is also the risk that the courses are not specific enough to teachers and that non-teachers will stay on the courses. The value of connectivism in promoting communities of practices for on-going professional development would be strengthened by making the courses more tailored for teachers.

As I conclude, it is important to highlight the need to fully harness the potential of connectivism, self-directed learning, and MOOCs in teacher professional development, it is essential to address challenges such as limited internet access and digital literacy. By investing in infrastructure, providing targeted support, and advocating for policy and institutional changes, countries in Africa can create an environment in which these approaches can truly transform teacher professional development in the region.

Opportunities and emerging partnerships

COL is grateful for on-going and emerging partnerships with AFTRA member institutions including:

- National Teaching Council, Ghana;
- Teachers Service Commission, Kenya;

- Teachers Registration Council of Nigeria;
- Teaching Service Commission, Sierra Leone; and
- Teaching Council of Zambia

THANK YOU!