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# The context of using TESSA OERs in Egerton University's teacher education programmes

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## **Abstract**

The Teacher Education in Sub-Saharan Africa (TESSA) consortium has developed Open Educational Resources (OERs) to support school-based teacher education and training. Egerton University has been involved in the creation and development of TESSA materials since 2005. TESSA materials are used particularly in the B.Ed (Primary) programme for in-service teachers and are integrated into the relevant pedagogy courses. In Kenya, there have been changes in the minimum requirements for joining primary teacher education programmes. This has led to an increased interest among teachers to upgrade their qualifications, improve their competencies and the quality of their practice. There are incentives for them to do so, including paid study leave, incremental credits on salary and promotion upon completion of their studies. For in-service teachers taking a qualification, part-time and distance learning is a necessity: because they need to fit their study around their own teaching. The expectation is that periods of residential study during holiday times, materials supplied as part of their programme, and school-based assessment, provide the basis for the development of their practice in their schools. This paper explores some of the challenges of these changing circumstances. We examine, through analysis of interviews which have been carried out with teachers and teacher educators, the opportunities and the constraints offered by a qualification designed to develop teaching practice. We explore the ways in which the use of TESSA OERs help support the development of teaching practice, and we map the challenges faced by teachers and by teacher educators in changing practice and in fitting new practices into existing school cultures.

## **Introduction**

Egerton University, one of the seven public universities in Kenya, runs its Faculty of Education from the Njoro campus in the Rift Valley and has been involved in teacher education in Kenya since 1966.

As with many other countries in sub-Saharan Africa, Kenya has struggled to meet the demand for quality teacher education, partly because of the scale of the need. Following its decision in 2003 to introduce free primary education, over the last decade the government in Kenya has produced a series of policies to improve the qualifications of all the nation's primary teaching staff. In 2002/2003, Kenya

upgraded its minimum primary school teaching qualifications so that all new teachers need to have at least 2 years post-secondary education and completion of secondary school with at least a Kenya Certificate of Secondary Education (KCSE) mean grade C. However, there are many existing teachers who have lower qualifications, though these numbers will gradually reduce as these teachers leave the profession. The goal of government is to have 100% qualified teachers.

Egerton itself introduced a B.Ed Primary degree course in 2002. This is an in-service qualification for experienced teachers drawn from the whole country. They follow a part time school-based training qualification. In terms of the levels of qualification of most of their fellow teachers in school, Egerton B.Ed primary students are experiencing the "two, three, four years of training" which Moon (2010) calls the 'gold standard' of teacher education.

In 2010/2011 there were 269 teachers graduating with a B.Ed Primary at Egerton University. There is a high level of interest in the qualification, as there is a system of paid study leave for upgrading qualifications, it leads directly to promotion and a higher salary, and for younger teachers, those under 25, there are direct financial incentives through a loan scheme from the Higher Education Loans Board (HELB), a government body that manages loans for students in HEI. The B.Ed primary qualification takes account of its students' prior and concurrent teaching experience with a 4 year accelerated degree in-service programme where students do their 45 credit hour course in 30 hours at the university and a 30 credit hour course in 20-24 hours. This is an example in sub-Saharan Africa of something fairly unusual - a programme where recognition is given to prior experience.

While this is an accelerated programme, it does represent a significant investment in time and money from teachers who in most cases will be already extremely experienced in the classroom. There are suggestions that more teachers on in-service programmes across the region could be helped by taking more account of their prior experience (Wolfenden, 2011). Nevertheless, it also offers an extended period of time for these students/teachers, as part of the community of practice to which they belong as Egerton students, to reflect on their classroom practices and to improve them.

## The B.Ed Primary and the use of TESSA OERs

The B.Ed primary programme gives teachers the opportunity to develop their practice in schools during the 4 years they are studying for the qualification. It is here that the use of TESSA OERs, introduced in the courses in pedagogy taught as part of the B.Ed in the Faculty of Education, can help to make lasting changes in classroom practices.

TESSA OERs consist of “a large bank of highly structured, activity based OER study units which teachers, either on formal programmes or through self-motivation, work through in their own classrooms with their pupils” (Wolfenden et al 2010). Egerton University was involved in the development of the TESSA OERs, helped to version them for the Kenyan context and makes them available in English. TESSA OERs can be used across all years of primary school, can be adapted for particular classes and provide an approach to teaching which can be used in all areas of the curriculum.

In terms of their own use of TESSA OERs, the development of their own practice, and the ways in which they are using their influence to spread the use of TESSA OERs among colleagues, in their schools and in the wider locality of schools in the region around Egerton, we turn to case studies of 3 Egerton B.Ed primary graduates.

The three are Mary, Rose and Patricia. Each has a different professional role in education and each is using TESSA OERs in a different way. The three case studies together give interesting contrasts in the use of TESSA OERs, and show how these OERs can influence practice in one classroom, in more than one classroom in a school and can move beyond one school to many schools.

**Mary** teaches at a rural school about 100 km from Egerton University. She is a B.Ed Primary graduate who graduated in 2008 and began studying for an M.Ed with Egerton in 2009. Her M.Ed topic is focused on an analysis of active teaching methods. Mary first became exposed to the TESSA OERs in classes at Egerton in 2005/2006 and in 2007 when she received the printed copies of the OERs and the CD and started using them extensively. Mary uses the OERs in different ways in her teaching. For example in her Grade 8 class recently, she has been using TESSA Literacy OERs alongside national curriculum materials in order to teach children to think critically, analyse passages of reading, and write more interesting compositions. With support from her teachers at Egerton University, she worked first at developing her

own practice using the OERs and then in 2010 used school staff meetings to begin to encourage other teachers in her school to use the materials. She has her own laptop which she takes to school (the school does not have computers or electricity) and teachers have been able to use the TESSA CD (and develop their own ICT skills) through this sharing. Mary has been what her fellow teachers call “persistent” in promoting TESSA OERs. She has been supported both by her Headteacher and Deputy Headteacher who are using the OERs themselves and who are helping to facilitate their use across teachers in the school. The Headteacher has been very supportive, including finding money for extra resources for the school to support the TESSA approach. The teachers who are starting to use TESSA OERs say that they have been initially cautious because of what they saw as extra time needed for lesson preparation, but they are already seeing that children engage in more independent learning in a TESSA-inspired lesson. Teachers were also initially worried about TESSA-based lessons taking time away from the national curriculum, but they have realised that TESSA is about developing methods of teaching and that it is possible to use those methods in any lesson in the curriculum. Mary says that she could do more to spread TESSA if she had more copies of the materials.

**Rose** is a Deputy Headteacher of a primary school about 20Km from the Egerton Njoro campus. She was promoted and moved to this new school at the beginning of 2011, thus she has been in this post for only a few months. At her previous school, which she says was a “performing school”, Rose was using TESSA OERs in her own classroom, as was a fellow B.Ed Primary student in the same school. What also helped to spread the use of TESSA OERs in her previous school was the fact that B.Ed primary students develop a learning resource for their school as a project in their final year and Rose’s was a ‘Wheel of Fortune’ to help in language learning, a resource which is still being used in the school. As well, though Rose was not a Senior Teacher in her previous school, she was the head of exams and she feels she was able to use that position to influence other teachers in the school in the spread of TESSA OERs. In her previous school, the Headteacher was very supportive of TESSA and had himself taken part in workshops on TESSA organised by Egerton University. In Rose’s current post, she is moving slowly in spreading the use of TESSA OERs. She has had to plan carefully and use patience to encourage teachers to use TESSA materials and methods. She has shared ideas, but has been cautious because she is new and others may take her ideas with “suspicion”. A few have been willing to try and participate

and others have been much slower to respond. Nevertheless, her position, her extensive teaching experience and the fact that she has come from a 'performing' school, is helping her ideas to be heard by the teachers she is working with. What she feels will make a real difference in her current school is a resource centre – a place where resources which are created in the school can be kept for use by other teachers. This is because the resources are usually fragile and represent a lot of work on the part of the teachers who create them. However, Rose has been told she is likely to be promoted again, so it is not clear how long she will stay at her current school.

**Patricia** is a 'Teacher Advisory Centre' (TAC) tutor in Molo, a district about 30 km from Egerton's Njoro campus. She is a B.Ed Primary graduate who then won a scholarship and completed an M.Ed in the Netherlands. She started to use the TESSA OERs in her primary science lessons while she was teaching and studying at Egerton and started to find immediately that the approach "stopped the monotony" in classes and fitted in well to the national curriculum. She was one of two teachers in that school taking the B.Ed and took advantage of a continuous dialogue on TESSA with her fellow B.Ed student. In her position as Subject Panel Head of Science and Senior Teacher, she was able to influence science teaching very directly. She was then promoted to Deputy Head at a different school, where 7 or 8 teachers were involved at the same time in undergraduate programmes at Egerton, including the B.Ed. Patricia was able to take forward ideas about TESSA because of her position as Deputy Headteacher and because of the collegiality of a group of teachers all studying at the same time to improve their classroom practice. She says that her success in spreading the use of TESSA OERs was a combination of using her role in the school along with a friendly, mentoring approach with teachers looking to improve their practice. She indicates that the effect seems to have been to inspire more teachers to study. In that school in 2011, out of a staff of 60, more than 40 are currently engaged in school-based undergraduate study with different universities. For Patricia, her own story is a "dream come true". As a TAC tutor, Patricia visits schools across the division and organizes staff development across 30 primary schools and 350 teachers. She sees opportunities to promote TESSA across all these schools. For example she has organized workshops on the use of TESSA OERs, for science Subject Panel heads, and for Senior Teachers. Patricia sees a need across the primary schools to change the lecturing style and the formal nature of many of the lessons. She also argues that TESSA OERs can address the practical needs that these teachers express – of having no time and no books. Patricia's role in visiting a school regularly, usually

once a term, means that she can provide regular reinforcement and ideas for further development.

## Some insights from these case studies

One of the successes we would claim for the use of TESSA OERs is that they take account of local and national circumstances. Materials are versioned for their use in Kiswahili and English and versioned for Kenya, and amenable for use by teachers with a wide variety of experience and teaching with varying levels of formal qualification. We would argue that there have been a number of programmes over the last few years to improve teachers' practices but few have achieved sustainable improvements in quality of teaching and learning because they often follow too rigid a template which fails to take sufficient account of local circumstances. The potential for TESSA OERs is to support improvements in practice across a wide range of primary teaching. So from these examples, TESSA OERs are helping the Egerton B.Ed students but are also being disseminated and used across a much wider community – and often with teachers who are inexperienced or who lack the levels of formal qualifications that the B.Ed students are working towards..

Both Rose's and Mary's case study illustrate how a classroom teacher, besides developing her own practice, has been able to influence the practice of other teachers in the school. For Mary in her current role and Rose in her previous school, this was effected through the support of the Headteacher and through slow and persistent encouragement of others. Mary's case is particularly interesting as she has no management position in the school to help her with this. This lateral spread of TESSA shows how important the work of classroom teachers not only in developing their own practice and improving the quality of their own teaching but also in influencing school-wide change. By regularly bringing her own laptop into the school, Mary has been able to overcome some of the difficulties for teachers in a rural school of accessing OERs.

Both Rose and Patricia's cases illustrate how they have been able to use their positions of influence as Deputy Headteachers to spread the use of TESSA OERs in a school. Both make it clear that this takes time, and as Rose points out, it also depends on how long a person stays in a particular school. Both Rose and Patricia's case studies also illustrate how TESSA practices can carry on in a school even when those originally involved have left and moved on to other schools. For

example at Rose's previous school, there is currently no-one studying at Egerton but a teacher new to the school in January 2011 is being inducted into the use of TESSA OERs. And Patricia's story of current high interest in undergraduate study among staff at her former school suggests that ideas about the benefits of improving classroom practice are perpetuating.

What all of these case studies illustrate is the potential for change within a school community, and how practices which are developed in one classroom in a school can start to spread among other teachers in a school at a pace which teachers are comfortable with. It can be an effective means of change to have teachers sharing ideas, taking risks with new teaching practices, collaborating with each other and learning from each other. TESSA OERs can provide powerful levers of change. With the support of school leaders such as headteachers and deputy headteachers, individual teacher development is linked to school level change.

Patricia's case study further illustrates the possibility of a spread of influence *across* primary schools through regular and frequent visits, and contact with headteachers and deputy headteachers across the schools under her jurisdiction. As the TAC tutor role also involves secondary schools, Patricia is able to start making the links from teaching practices in primary schools into the practices in secondary schools. A TAC tutor can also influence education policy at the district level through frequent and regular contact with the district office and her role in providing an essential link between district level education policymakers and all the schools in the district. It is now possible for Patricia, because of her TAC tutor role and her long-term relationship with Egerton University, to work at a strategic level with Egerton to run workshops and distribute TESSA OERs, to organize joint TESSA workshops and so on.

Both Rose's and Patricia's stories illustrate the case of teachers who have been promoted out of the classroom and so whose day to day relationship to classroom practice is inevitably reduced. Rose as a Deputy Head Teacher still teaches a certain number of lessons and this could continue if she is promoted to Headteacher. But inevitably, when roles become more managerial, direct teaching contact with the children reduces. Patricia's case illustrates this very well – she now sits in a lot of lessons observing primary teachers, rather than doing the teaching herself. However the upside of this is that both Patricia and Rose are in very direct positions to influence a large number of teachers – beyond the boundaries of one school. For example Rose has



regular opportunities to meet with other Deputy Headteachers, and should she be promoted again there is an official agenda of Headteacher meetings and the opportunity for regular discussion of TESSA OERs in that forum at both divisional and district levels.

Both Mary and Patricia have a long term ambition to gain further qualifications. Patricia has plans to start a Ph.D very soon, and Mary would like to do so once she has finished her M.Ed. For both, their ambition is to move into teaching in Higher Education and join a university faculty as teacher educators. Both see this, not as taking themselves away from using and being influenced by TESSA OERs, but as an opportunity to have a wider impact on the teaching methods of primary teachers in Kenya.

### Distributed collaborative teacher development

What we would claim to see in these examples is an evolving network of teacher development. Egerton University in these terms is functioning as a hub, providing expertise and support and development for large group of local teachers and schools. The network is developing in several different ways but all in a very 'bottom up' fashion, extending established ideas about TESSA theories of change – that is not as top-down directive or mandated policy (Thakrar et al 2009). For example:

- a teacher who has had experience of using TESSA OERs in her own classroom then introduces them to teachers in her school - network developing laterally across a school
- a school administrator/manager who has long experience in using TESSA OERs in her own classroom influencing teachers in her school - network developing downwards but not as a directive and with real sensitivity for teachers' cautiousness and concerns
- a TAC Tutor who has had experience of teaching TESSA running workshops with Subject Panel heads in Science. Network developing outwards and across schools
- B.Ed primary graduates continually renewing their relationship with Egerton - for example through beginning study on M.Ed or working with Faculty academics on TESSA workshops. Network being strengthened
- B.Ed primary graduates renewing their relationship with each other, as they move school, position and type of post within the same general locality.

- Egerton teacher educators running informal workshops on TESSA OERs with primary school teachers.

## Conclusion: How to extend and embed networks like these?

It would seem to be important that former B.Ed primary graduates do manage to keep up a relationship with the hub, Egerton University. The ones we talked to are working in the region around Njoro and this would seem to be important for touching base, keeping up with the discussion on TESSA and its developments, and maintaining their enthusiasm.

Another obvious need is the continued provision of TESSA materials. This is not a taken-for-granted fact as the reproduction of materials is both expensive and difficult – teachers do not have access to computers and photocopiers – and who, institutionally is in a position to fund any resources for distribution?

Organising some small packages of 'core' TESSA materials in such a way to interest and enthuse teachers who are just beginning to use TESSA OERs is something which has recently been discussed in a number of schools around Njoro.

And finally, the continued involvement of Egerton University teacher educators, not just during the 4 years of a teacher's B.Ed, but over a longer period of time is something which appears very important to extending and embedding. Faculty staff are engaged in what we would term formal, (as part of the B.Ed) semi-formal (workshops with teachers) and informal (conversation, discussion with former students, teachers in school) work in extending and embedding TESSA OERs. The success of such a network would appear to depend critically on OER 'champions' at the HEI.

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