Open Pathways to Literate Worlds –The TESSA (Teacher Education Sub Saharan Africa) experience.

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Abstract

Although the mediation of a teacher in the context of a formal school is not the only way that a learner might acquire basic literacy skills the fact remains that in most instances this is the manner in which such skills are achieved. This poses a challenge for many parts of sub-Saharan Africa where there are severe shortages in teacher numbers, in the capacity to train adequate numbers of teachers, and in access to locally appropriate materials to support teacher development in a manner that will impact on success rates of children in basic education including literacy acquisition. This chapter explores the way in which the open education resource (OER) *Teacher Education in sub-Saharan Africa* (TESSA) is attempting to provide sustainable and appropriate responses to such a challenge. It describes the broad philosophical approach that underpins TESSA before exploring some of the TESSA materials and pedagogic approaches to supporting teacher education with regard to literacy. The impact of the scheme so far is analysed briefly through the findings of various internal and external evaluations. Particular cases of the use of the TESSA literacy resources in Zambia to support literacy initiatives from an international non-governmental organisation (*Read to Succeed* – USAID) and a local scheme (*The Reading Tree)* are briefly discussed to illustrate both the efficacy and flexibility of the resource. Finally, various challenges and opportunities regarding the TESSA approach are deliberated with particular regard as to how these might help shape the response to the challenge of providing literacy education in the future.

Introduction

Since its inception in 2005, the Teacher Education in Sub-Saharan Africa (TESSA) community - a partnership of universities and educational organisations across Africa working in collaboration with The Open University UK - have created a large body of Open Educational Resources (OERs) to improve the quality of teacher education in universities and teacher training colleges, and to develop in student teachers, teachers and teacher educators an understanding of the practical skills involved in good quality classroom teaching.

TESSA OERs are a toolkit of subject-specific pedagogical resources for teachers, currently aimed mainly at primary-school level teaching but increasingly also focusing on secondary level and pre-primary teaching. The OERs, in literacy, numeracy, science, social science, creative arts and life skills, have been created to map onto the national curricula of countries across Africa, versioned for specific countries and written in Arabic, English, French and Kiswahili. The OERs are written to provide innovative and active teaching and learning, and to deal with the challenges of teaching in schools with large classes and few resources. They are made available on the TESSA website (http://www.tessafrica.net/) for download onto tablets and mobile phones, on CDs, on university intranets and as paper copies.

New TESSA OERs in development include resources aimed at teachers engaged in pre-primary education. Early childhood education (ECE) has been neglected in Sub-Saharan African countries with currently fewer than 15% of children enjoying a full year of preschool education (UNESCO 2010). There is now huge impetus to increase the provision of ECE but concerns about the quality of infrastructure and teaching materials, the lack of qualified teachers for this age group, the lack of age-appropriate curricula, and the lack of systems for measuring and evaluating gains (UNESCO 2010).

OERs can help to address the continuing chronic teacher shortages in Sub-Saharan Africa with an estimated additional 4.7 million teachers needed by 2030 (UIS 2012) a figure impossible to meet through formal university or teacher training programmes (Moon 2010). OERs can help to meet the professional development needs of unqualified teachers, where 'unqualified' is defined as 'not holding the certification required in the country to be considered a qualified teacher' and who are working in thousands of classrooms across Sub-Saharan Africa (e.g. Mulkeen 2010). As published OERs, TESSA resources are available to a wider community than those involved in formal teacher training programmes. TESSA OERs – freely available under Creative Commons Licences to re-use, share and adapt (http://creativecommons.org/licenses/) - can help to address the widespread need for the more informal professional development of teachers, for example in-school CPD led by the headteacher or district education officer (e.g. Cullen et al 2012), or for use within NGO-led education projects, as discussed later in this chapter in the Zambian context.

The concept of TESSA, has been evaluated as "somewhat ahead of its time in recognizing teacher quality as the key need within a new model of teacher education" (Harley and Barasa 2012, p, 5). Harley and Barasa (2012) note a number of features that make TESSA effective as tool for the development of teacher-learners (as well as teacher educators). TESSA,

- foregrounds and provides the resources and tools for activity-based learning;

- does not begin by providing abstract 'theory' … By simply employing the user-friendly TESSA tools and resources, practitioners are inducted, naturally and almost by default, into best professional practice;

- makes child-centred, activity-based and reflective practice real, and achievable.

The approach within TESSA has been to identify a "high degree of synergy between the TESSA project goals and the institutional plans and priorities" of organisations within the TESSA community, and this has "engendered the partner institutions' support and commitment to the project" (Kanwar et al 2010, p, 70). TESSA "points to the potential for collaborative resource development to have a clear impact on teacher development on a large scale" (ILO 2012 p, 229) with TESSA OERs "used in programmes with almost 300,000 enrolments of teacher-learners and in-service teachers across a wide range of programmes in all partner institutions." (Harley and Barasa 2012, Executive Summary p,2)

TESSA Literacy OERs

Within the TESSA primary teacher OERs there are 15 units devoted to literacy, written collaboratively by TESSA partner institutions from across Sub-Saharan Africa. The approach to constructing the 15 units has followed the model of the TESSA OERs in all the primary curriculum areas. The units are grouped into 3 modules and are for use by teachers across the whole primary curriculum. They combine ideas for lessons, case studies of how teachers from across Africa have organised particular lesson activities, general resources to support classroom management (e.g. how to set up groupwork) and ideas as to how to source lesson resources in the local community. The 3 primary level literacy modules are 'Reading and Writing for a Range of Purposes'; 'Using Community Voices in your classroom' and 'Promoting Communication in an additional language'. They include for example ideas on using local games and rhymes to teach an additional language, bringing in grocery packaging to use as reading texts, inviting local community members to tell oral

stories. The TESSA approach is that of the teacher engaged in quality teaching to explicit outcomes, facilitating active and enjoyable learning with the participation of all students in the class. This quality of engagement is necessary, as studies show that presence within formal schooling is of itself not enough to guarantee progress in literacy. UNESCO (2006, p. 2) notes of the Sub-Saharan context; "Even among those who reach the last grade, large numbers possess weak literacy and numeracy skills."

TESSA Literacy materials in use in Zambia

Zambia faces severe challenges in upgrading reading achievement amongst the school aged population. National assessment shows the mean performance of students in reading in English to be around 35 per cent (Zambian Ministry of Education 2008, 2010) indicating only a small rise after a decade of literacy focused initiatives (Brooker and Fearnley-Sander 2013). Such challenges are compounded by pupil to teacher ratios of 57:1 (on average) and high teacher attrition rates caused by many factors including low rates of pay and the impact of HIV / AIDS (Creative 2013). There also appear to be limiting perceptions from teachers and students as to where reading should be done and taught (in libraries where books are held on shelves) that require examination and challenging if reading is to become more deeply embedded in the everyday culture of learning communities (Sinyangwe, 2013).

TESSA literacy materials have been taken up in two differing but related literacy projects operating in the Zambian school sector (both the state, and the community school sector, which falls outside state schooling). These are; 'Read to Succeed' (USAID 2013), and 'The Reading Tree' (Sinyangwe 2013). The following brief discussion is not an evaluation of the efficacy of either of these schemes: that will have to be taken up elsewhere. It is simply a reflection on why it appears that TESSA literacy materials appear to be adaptable to use in a variety of contexts.

'Read to Succeed' is a large scale USAID-funded project aimed at improving literacy and numeracy rates in Zambia over a three year period (2012 – 15). It seeks to address; "… five key elements common to school effectiveness models: learning, teaching, management and accountability, parental/community participation, responsiveness to children's needs." (Creative 2013). Although TESSA OERs did not originally feature as part of the 'Read to Succeed' set of materials, the employment of a local consultant, Peter Sinyangwe, who was very familiar with them and their implementation, means that they are now a included in the array of items on offer to support the development of teachers and students. Sinyangwe has also implemented a complementary but separate scheme in the Chinsali District called 'The Reading Tree'. It is so-called as schools involved in the scheme build a concrete platform around a large tree in school grounds which acts as focus for less formal literacy activities. Such was the initial impact that the Muchinga Province Education Office has now instructed all schools in the province to provide a similar resource. Trees were identified for the support of reading activities in schools with the following ideas in mind (Sinyangwe, 2013; 5);

- It was both cheaper and manageable *(than building new classrooms)*
- Children will read to each other in a shade full of fresh air to breathe
- The activity will be interactive, to be conducted away from the rigid classroom environment.
- The activity can be conducted with minimum supervision by teachers
- The innovation is an attractive and deliberate mode of encouraging students to read

- Students will be able to read stories written by peers and teachers, rather than relying on the mechanical written materials written by other writers.
- Students will improve their communication, writing and reading skills through practice

The brief analysis in the introduction of the chapter of TESSA approaches shows the congruence of these to the stated philosophy, purposes and methodologies of both 'Read to Succeed' and 'The Reading Tree'. When Zambian teachers access TESSA materials (either in print or via an e version) they meet a resource that recognises the reality of their context (the examples below are all taken from the Zambian version of TESSA Literacy Module 1 (TESSA undated)); "*Miss Rose Banda teaches English to Grade 4 in Marapodi, Lusaka. They are not very familiar with English but they recognise letters and some English words on grocery packaging.*" They are presented with examples of ideas that are not necessarily simple (e.g. learner centred activities) but which can be done in a simple manner; "*Bring to class enough tins, packets or boxes for each group of four or five students to have one item to work with or ask your class to help you collect these items.*" They are encouraged to use resources available in their own environment (both physical and human); "*Mr Sakala planned a route around Livingstone city that would give students opportunities to read … Mr Sakala has 58 students in his class, including ten who have recently arrived from Zimbabwe. He decided to ask two retired multilingual friends to assist him with this activity.*"

Challenges and opportunities

The Zambian example shows teachers and teacher educators focusing on the situated reality, drawing on different sets of resources and marrying approaches to meet the needs of teachers. The structured nature of TESSA activities to support teachers in implementation and reflection appears to help teachers engage with the materials, and offers institutions (universities, training colleges, schools, NGOs etc) a focussed yet flexible resource.

However, challenges to the use of TESSA resources at scale remain, of which access to TESSA is possibly the greatest of a number: Harley and Barasa (2012) note that many users still rely on accessing paper copies of materials. This is not just an issue of cost but a limiting factor on one of the important developmental opportunities that TESSA provides, namely the chance for users to yet further adapt materials to suit their own very particular contexts and needs.

Another challenge and an opportunity is to meet the need for literacy resources for teaching pre-primary education and secondary education, in recognition of the need to improve the teaching of literacy across a wider age range. TESSA has recently begun working on a new 'Teaching Early Reading' module, aimed at pre-primary children: involving TESSA partners from HEIs in Ghana, Tanzania and South Africa. The 5 units published in final form as web-based OERs in 2015 involve collaboration with 'African Storybook' (http://www.africanstorybook.org/), a digital library of African stories written in and translatable into local languages, to inform the pedagogy of teaching early reading. It can be argued (e.g. Kamangwamalu 2013) that the use of English as the medium of instruction has in itself been a barrier to the overcoming of poor literacy achievement. This highlights a challenge for TESSA in that TESSA materials are written in the language of teacher education (English / French / Kiswahili / Arabic) rather than the first or home language that many students in EC or primary settings grow up with, so there are both practical and conceptual challenges to face.

With regards to the evolution of the Millennium Development Goals post 2015 there is recognition that there needs to be far more cross-sectorial working that responds to needs - such as literacy acquisition - identified at a much more local level (United Nations 2013). The TESSA OER, whilst not a sinecure, appears to offer potential for just such developments.

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