

# Sharing the garden: working with OERs in African teacher education

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The title for this article comes from *The Selfish Giant*, a short story by Oscar Wilde. This children's story is about a giant who goes away from his castle for seven years only to come back and find that the garden, full of beautiful flowers and fruit trees, is also the place where every day after school, children have been coming to play.

*'My own garden is my own garden,' said the Giant. 'Anyone can understand that, and I will allow nobody to play in it but myself.' So he built a high wall all round it and put up a notice-board saying: 'Trespassers will be prosecuted.'*

But the story does not end there. The Giant, moved by one particularly vulnerable child who has crept into his garden through a hole, comes to his senses. He lifts the child into a bare tree, which at once breaks into blossom, and the little boy stretches out his arms and flings them around the Giant's neck and kisses him. Whereupon the Giant knocks down the walls around his beautiful garden, and makes it a 'Creative Commons' for all the children to enjoy.

In South Africa, we have not been good at sharing the garden, particularly the 'garden of education', not only under apartheid, but also under the new government. This has contributed extensively to what Fleisch (2008) refers to as a 'bimodal distribution of learner achievement', where the vast majority of learner scores on a range of systemic tests is at very low levels (below norms even for developing countries), and a small minority is at levels comparable with results from the developed world.

The key challenge in South African education remains improving the quality of education for the majority in a very unequal society. But this kind of inequality exists not only in South Africa, but in other countries in the region, as demonstrated by UNESCO's Education for All 2010 Monitoring Report.

In most countries in Sub-Saharan Africa, one of the contributing factors to this inequality is that access to high-quality, pedagogically sound learning materials is frequently inhibited by the inability of educational institutions to afford them. Consequently, learning materials are scarce at all levels of the system.

## OERs: helping make quality education available to all

Open educational resources (OERs), 'digitised materials offered freely and openly for use and reuse in teaching, learning and research' (Susan D'Antoni), have a role to play in this context. Recent open licensing arrangements – for example, Creative Commons – assist in removing the need for permissions and payment. This means that the materials not only become more affordable, but also that the cumbersome process of obtaining permission to use them improves their immediate availability. In

addition, digitally available material enhances the potential for access, adaptation and reuse. If open licensed digital material is available, course material developers can incorporate, customise or adapt it for their own contexts, instead of having to rework and quote selectively from paper-based sources.

## Recognising and addressing the challenges of OERs

For OERs to contribute to the improvement of Education for All (EFA) in Sub-Saharan Africa, there are two main challenges that have to be addressed:

- (i) **Digital access:** the 2009 ITU Telecom figures show that only 1 in every 1,000 Africans have broadband access, whereas in Europe, the figure is 200 in every 1,000.
- (ii) **Relevance of existing OERs:** most of the OERs available are not African, and there are major issues with relevance and ownership. There is, therefore, a very real danger that the concept and practice of OERs will evolve predominantly outside and for Africa, with African educators being only consumers rather than producers of their own educational material.

To address the first challenge, OER projects in Sub-Saharan Africa have to work with digitally available content in ways that do not exclude those without digital and internet access; while to address the second, such projects have to focus on developing relevant content, as well as working to contextualise existing content.

Below are two initiatives in Sub-Saharan Africa that have risen to the two challenges in different ways.

### TESSA (Teacher Education in Sub-Saharan Africa)

The TESSA project is led by the Open University in the UK, but managed through 18 partner institutions across Sub-Saharan Africa.<sup>2</sup> The TESSA consortium has developed and produced a large bank of highly structured OERs to support teacher education – in each of five primary school curriculum subject areas, there are three modules, each with five sections (a total of 75 sections). Each of these has been versioned for the nine participating countries and is available not only in English but also in Arabic, Kiswahili and French. The user in Sub-Saharan Africa – teacher educator and teacher – has been at the centre of the development process; i.e., producer, collaborator and contributor. Almost all the OERs have been created by a range of educators from across Africa (over 100 authors have been involved), while several hundred potential users from universities, colleges and schools have taken part in the testing and developing of the materials and website at different



stages. This activity has contributed to developing the skills of teacher educators in writing material for professional work-based learning, and in particular has contributed to their own use of new pedagogies based on evidence of effective teacher education and models of learning and teaching.

It is not assumed that teachers and teacher educators in participating countries should have access to the internet or even to computers; consequently, current use of the TESSA materials is through CD-Rom, but most is through printed copies, using well-established infrastructures for printing and distribution.

#### **SAIDE (South African Institute for Distance Education)**

Whereas the TESSA project focuses on development of OERs, some of the OER work that SAIDE is doing (through its OER Africa Initiative) focuses on selection of high-quality, locally developed existing teaching materials and engaging educators in adapting these materials for release as OERs.

One example emanates from an early SAIDE project funded by the W.K. Kellogg Foundation to produce an Education Studies series for teacher education, which was grounded in the Southern African context, and which supported the transformation of the teacher education curriculum. The resulting modules were entirely 'home grown', and are still being used by leading South African institutions. The project ran from 1998 to 2002, before the Creative Commons and OER discourse emerged. The major barrier to their widespread use was the high price charged by the publisher. Now that the agreement with the publisher has lapsed in

respect of six of these modules, SAIDE is making them available as OERs on its OER Africa website ([www.oerafrica.org/teachered](http://www.oerafrica.org/teachered)).

Since SAIDE has the copyright for the learning guides that form the core of these modules, there has been no difficulty in re-licensing the new digital version with a Creative Commons Attribution 3.0 (unported) licence. The new digital version also facilitates the use of the multimedia components (audio and video), which, because they previously had to be separately purchased, were often not used. The uptake by universities is already gratifying.

Aside from the digitisation challenges created by the lack of availability of some of the open files, SAIDE is having to find creative ways to deal with the readings that accompany the learning guides, as these are copyrighted in conventional ways to individual authors or publishers.

With the experience gained from efforts to digitise its own conventionally published materials, SAIDE is encouraging others to share their conventionally published materials. Part of the approach involves sourcing existing out-of-print but high-quality published materials in areas of particular need, and approaching authors and publishers to release these for digital publishing under a Creative Commons licence.

One such project ran from 2006 to 2009. In response to a request from the South African Department of Education for materials to support large-scale roll-out of in-service teacher upgrading, SAIDE conducted a pilot project – the ACEMaths<sup>3</sup> project – working with maths teacher educators from eight South African institutions to

identify and adapt existing high-quality materials on the teaching and learning of maths. SAIDE found a good core module on the subject at the University of South Africa (UNISA), and approached UNISA for permission to take their module and release it under a Creative Commons licence. This was UNISA's response:

*UNISA hereby grants to the South African Institute for Distance Education (SAIDE), the non-exclusive, non-transferable, perpetual right, worldwide and free of charge, to make adaptations and to create derivative works, and to reproduce and publish said works, or parts thereof, in any format whatsoever.*

*The permission granted may not be transferred, ceded or sub-licensed to another person, without the written authorisation of UNISA. The parties agree, however, that derivative and adapted works may be sub-licensed.*

Of particular interest was that UNISA retained an All Rights Reserved Licence for the original version, but gave the project permission to re-license the adapted version.

The module materials, duly adapted, piloted and revised, were used in a variety of programmes in seven South African teacher education sites. These materials were used in in-service as well as pre-service programmes; were adapted for teachers of Grades 10 to 12, as well as teachers of Grades 1 to 9, in programmes focusing on the teaching and learning of maths; were used in programmes focusing on special needs or inclusive education; and were incorporated in mixed mode and distance programmes as well as conventional contact tuition. The numbers of students exposed to the materials increased from 266 in 2007 to 1,841 in 2008 and 2,233 in 2009.

Three interesting findings from the process were noted:

- (i) Although initially one or two programmes in a particular institution used the materials, use extended to other programmes at the same institution.
- (ii) Although an OER project, it was only in the final stages that the materials were available digitally (at [www.oerafrica.org/acemaths](http://www.oerafrica.org/acemaths)); teacher educators accessed the materials through the site, but all students used paper-based versions; and although the OERs were digitised, those who used them did not necessarily need to have access to computers or the internet.
- (iii) UNISA itself is now using the adapted, revised SAIDE version of its own module. Rather than simply being the 'donor', UNISA is a beneficiary from the revisions and improvements of its module.

## Conclusion

In conclusion, sharing the 'garden of education' in Africa means both collaborative developments of new OERs, as well as releasing existing materials as OERs. But it is not simply the accessibility of the material that is important – it is in the using and adapting of the material, particularly through a community of practice, that the benefits lie.

## Endnotes

<sup>1</sup> Trends in International Mathematics and Science Study; Progress in International Reading Literacy Study; Monitoring Learning Achievement; Southern and Eastern African Consortium for Monitoring Educational Quality.

<sup>2</sup> For more information see [www.tessafrica.net](http://www.tessafrica.net)

<sup>3</sup> ACE stands for Advanced Certificate in Education, a qualification for in-service and/or upgrading of teachers in South Africa.

## References

- Anamuah-Mensah, J., Buckler, A., Moon, R., Ricketts, K., Sankale, J., and Wolfenden, F. (no date). *Building an effective 'Open Education Resource' (OER) Environment for Teacher Education in Sub-Saharan Africa: The TESSA Experience*. [http://www.tessafrica.net/images/stories/static\\_files/tessapcf5paper.pdf](http://www.tessafrica.net/images/stories/static_files/tessapcf5paper.pdf). Accessed 19 July 2010.
- D'Antoni, S. (2009). *Open Educational Resources: Building a Culture of Sharing*. Paper presented at an OER conference, Warsaw, 23 April 2009.
- Fleisch, B. (2008). *Primary Education in Crisis. Why South African Schoolchildren Underachieve in Reading and Mathematics*. Cape Town: Juta & Co.
- ITU Telecom (2009). *The World in 2009: ICT Facts and Figures*. <http://edutechdebate.org/creating-electronic-educational-content/asymmetrical-oer-country-problems-and-needs/>. Accessed 14 Dec 2009.
- Howie, S. et al (2008). *PIRLS 2006: South African Children's Reading Literacy Achievement: Summary Report*. Pretoria: Centre for Evaluation and Assessment at the University of Pretoria.
- UNESCO (2010). *Education for All Global Monitoring Report: Reaching the marginalized*. [www.efareport.unesco.org](http://www.efareport.unesco.org) - contact: [efareport@unesco.org](mailto:efareport@unesco.org) Accessed 11 July 2010.
- Welch, T. and Sapire, I. (2009). *Developing and using quality learning resources in an Open Educational Resources environment: The SAIDE ACEMaths project*. [www.oerafrica.org/acemaths](http://www.oerafrica.org/acemaths). Accessed 19 July 2010.
- Wilde, O. and Foreman, M. (1995). *The Selfish Giant*. Penguin Books Ltd. London.

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