

OER contributing to early literacy in Africa: Evidence from Saide's African Storybook

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Abstract

One of the major reasons for poor literacy levels among African children is the severe shortage of local language contextually appropriate materials for African children learning to read. To contribute to addressing this challenge, Saide's African Storybook initiative is testing an alternative publishing model. The website www.africanstorybook.org provides not only openly licensed stories for use, but also the tools for the translation of stories, and tools for the creation of stories, which are in turn openly licensed. The paper provides evidence that 'going the open way' can produce the quantity of stories needed in the languages needed for young children to practise and learn to love reading. In addition, the publishing model both requires and stimulates teacher and community agency and encourages use.

Why African Storybook?

Children need to have lots of practice in reading text, so that decoding letters and sounds on a page can become as automatic as driving a car – freeing up children's minds for the more complex tasks of comprehension (Abadzi, 2008). They need to have books in a familiar language, with stories that reflect their context and experience, as well as their hopes for the future, so that they can connect with them emotionally (Bloch, 2006). Finally, children need adults who are invested in these stories, motivated to use them, and talk about them and through them to their children (Bloch, 2006).

But there is a challenge. There are not nearly enough books in African languages for effective early literacy development (Pretorius and Mampuru, 2007). The shortage of books means that too few African children learn to read well or enjoy it. This in turn means that there is such a small market for books in African languages that it is not cost effective to produce these books. As a result, few children learn to read well, and the cycle continues.

There is clearly a need for an alternative publishing model that does not have to consider the size and buying power of the market, as well as distribution networks, when producing books for African children in a familiar language.

Saide's African Storybook initiative has responded to this challenge and is testing an alternative way of using ICT and the concept of open educational resources (OER) to produce and deliver stories for early reading in languages familiar to African children. Its website provides not only openly licensed stories for use, but also the tools for the translation and creation of stories, which are in turn openly licensed. This means that users of the website, wherever they are, can produce the quantity of good reading materials that young children and all first readers need to build up the fluency that neuro- and cognitive scientists are telling us is essential to wiring the brain for reading and complex logical thinking (Wolf, 2007). To facilitate use in contexts where there are challenges not only with connectivity but

also with electricity supply, the storybooks can be read online or downloaded onto a device and read offline, or printed on home/office printers or commercially. The initiative is summarised succinctly in the vision statement:

Open access to picture storybooks in the languages of Africa, for children's literacy, enjoyment and imagination.

With a generous four year grant from Comic Relief, a British Charity, the African Storybook OER initiative was piloted in 2014 and 2015 in three countries, with 14 pilot sites carefully chosen to represent the target audience – the marginalised majority of African children who are not achieving levels of literacy they need to thrive and contribute in contemporary society. The pilots were located in rural and peri-urban primary schools, community libraries and early childhood development (ECD) centres in Uganda, Kenya and South Africa and in the mountains of Lesotho. (We had only one site in Lesotho – hence this country is not regarded as a pilot country). In 2016, four of these sites were selected to become 'hubs' for African Storybook work in the broader community with the brief to extend activities to further schools or libraries in the municipality or county.

Much larger scale implementation has also been secured through partnership with government departments (both national and provincial) in Kenya and South Africa, as well as with a tablet-based initiative (iMlango) reaching 195 primary schools in Kenya. Efforts have been made to integrate use of the website and tools in teacher education institutions in Kenya and South Africa, and many translations and new storybooks have been developed by student teachers. Finally, African Storybook is expanding to new countries (Ethiopia, Ghana, Zambia, and Rwanda), starting with commissioned translations into local languages, and following this up with story development and use in association with partners working in literacy development in these countries.

Elaboration of the need

Research is overwhelmingly in favour of mother tongue literacy, but the implementation of language in education policies that facilitate literacy in the child's main home language (or even in a familiar local language) are difficult.

In most countries in sub-Saharan Africa there are policies which support mother tongue literacy for the first three grades of primary school, with early transition to English, but many countries struggle with the implementation of this policy in similar ways. There is a shortage of material to support African language literacy (Bloch, 2006) as well as inadequate teacher training for the teaching of reading, particularly in the African languages (Akyeampong, 2011). This usually results in rote reading – children learning the few books they have by rote, rather than learning to read new books for meaning.

Recently USAID commissioned research to determine levels of investment required to provide material in the quantities and languages required to support learning to read in a familiar language. A guideline of 42 book titles per school per year was given (Global Book Fund, 2016, page 22). Thus, for the first three grades of schooling, 120 storybooks could be taken as an approximation of a 'critical mass' of storybooks required for early reading.

However, a USAID commissioned survey of early reading books in 11 African countries showed that production of children's reading books in many countries is lacking in both quantity (number of available titles) and quality (alignment with best practice pedagogical principles). The findings of the survey were:

Although materials in 200 African languages were found, most languages are represented by very few titles: 40 languages have only one title each, 42 languages have between two and five titles, and 59 languages have between six and 20 titles. (RTI International, 2015, page 5)

This point was powerfully made in a recent presentation of the interim results of the RTI School Health and Reading Programme (Basic Education Working Group meeting in Kampala on 8 April 2015). Children learning to read in a

language like Luganda, in which there are some local language storybooks and resource materials, do much better than those learning to read in languages like Ateso, in which there are no local language storybooks or resources in schools. Whereas 9% of Luganda speaking Primary Two can read 20 or more words per minute, 0% of Ateso speaking Primary Two children can read 20 or more words per minute. Even with an excellent reading intervention such as the School Health and Reading Programme, only 2.8% of Ateso speaking children reach the target for Primary Two, whereas 18% of Luganda speaking students reach this target (see USAID/Uganda School Health and Reading Program – Newsletter October 2014-January 2015, Vol 1 Issue No: 3). The need for supplementary local language resources is clear.

In addition, the 2015 Survey notes that the vast majority of the material that is available does not serve the needs of early reading (too many words, language and sounds too complex):

The findings also suggest a need for strengthening the capacity of local talent to produce developmentally appropriate supplementary materials that match early readers’ different skill levels (RTI International, 2015, page 7).

One of the contributing factors to this shortage is that intellectual property arrangements do not facilitate content sharing – either within or across countries.

Use of Creative Commons (CC) licensing is low, copyrights are often unclear or cumbersome to manage, which prevents titles from being translated and/or reprinted for wider distribution (Global Book Fund, 2016, page 29).

Both studies point to the African Storybook initiative as the exception in this regard:

However, SAIDE’s African Storybook Project stands out as a major innovator in supplying high-quality materials that can be easily adapted and shared through the use of Creative Commons. (RTI International, 2015, page 48).

How has an open licence digital publishing model enabled the development of a critical mass of storybooks in local languages for early reading?

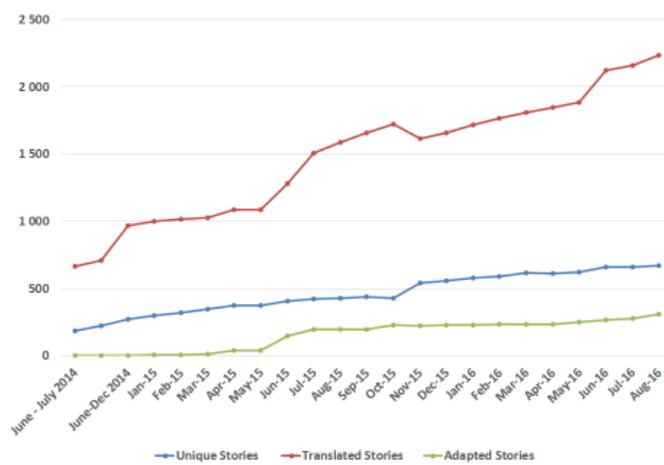
Development of the African Storybook website and collection of storybooks started in 2013. The aim was to provide about at least 50 storybooks in each of the main languages of the 14 pilot sites and English. The website was launched in June 2014 with 120 picture storybooks and over 600 translations of these into 19 languages. By 31 August 2016, the site had 670 unique storybooks and 2545 translations/adaptation in 81 languages (including English, French, Portuguese). In addition, the following table shows that the goal of 50 or more storybooks in the main languages of the pilot sites was reached.

Table 1: Numbers of African Storybooks per main pilot country language as at 31 August 2016

S African languages	#	Ugandan languages	#	Kenyan languages	#
isiZulu	180	Lunyole	144	Kiswahili	177
isiXhosa	116	Luganda	114	Ng’aturkana	113
Setswana	91	Lugbarati	89	Oluwanga	76
Sepedi	63	Lumasaaba	69	Maa	62
Sesotho (Lesotho)	60			Kikamba	52

Stories have come through story development processes at universities and in partner literacy projects, and from donations of illustrated or un-illustrated stories from authors/emerging authors in the pilot countries. Most authors are very willing to give their stories. However, it is through commissioned translations, facilitated by an open licence allowing derivatives, that a critical mass of storybooks can be obtained. The fact that the storybooks are openly licensed is key to the rapid growth of the website. As permissions editors know, obtaining the necessary clearances for materials is a process that can take six months to a year. If this had been necessary for each of the storybooks and their translations, it would not have been possible to publish a collection of this size in two years.

Figure 1: Relative contribution of translations to the numbers of storybooks



The initiative is thus demonstrating that it is possible to produce a surprisingly large number of storybooks and translations of storybooks in a relatively short period of time.

An important additional dimension is that it is possible to produce these storybooks at a fraction of the cost of original titles because the illustrations are re-usable, and the digital tools exist for publishing of a translation in the same format. The African Storybook commissions high quality digital illustrations at an average cost of USD100 per 12 page book. Each translation and adaptation makes use of the same illustrations. So the initial investment in the book is spread across the 20 or more versions of the book that are created. In addition, the professional illustrations are stored in the African Storybook image bank and can be used not only for translations and adaptations of a storybook, but combined to create new storybooks.

As the initiative scales up, and provides material for systemic implementation in the schooling system, quality assurance has been an issue. We distinguish in our website between community storybooks and approved storybooks. We leave the community stories unedited, but we are developing processes for approving community storybooks and translations of storybooks.

As the African Storybook initiative cannot possibly employ sufficient people to quality assure each of the 81 languages on the site, we depend on a network of language specialists. We now require a quality check from a second person before a translation can be approved. However, we recognise that this will not result in a translation that is 'perfect', for a number of reasons:

1. Particularly in languages that have only recently been written down, speakers have widely differing views of what is correct. Or they themselves may be learning the written version of the language that they speak.

2. It is sometimes not well understood that languages are often fluid, with different varieties used in different areas, and different varieties developing particularly in urban contexts. What is the right word in the language spoken in one area is not correct according to people who live in another area.
3. People have different understandings of the process of translation. Some do it more literally; others attempt to adjust/adapt the storybook so that the translation will be contextually appropriate for the new target audience. Although time-consuming, a workshop approach is a good way to arrive at a translation that both preserves the original storyline but is also adjusted for the rhythms and structures of the new language, and cultural context in which the translation will be read.

In the response of the African Storybook to requests for our content from the Kenyan Institute for Curriculum Development and the South African Department of Basic Education, we have engaged the officials, and wherever possible, the teachers as well in the selection and checking of the storybooks. The storybooks they select and distribute digitally or in print become an approved collection.

All of the above illustrates an enormous benefit of an open licence. Instead of rejecting an appropriate storybook because one or two of the words are not acceptable, users can participate with us in making a version that can receive their stamp of approval.

Another benefit of open licensing is that, because the content is free, it is possible to print storybooks for a fraction of the cost of conventionally published material. For example, in South Africa, African Storybook is working with KwaZulu-Natal Department of Education Library Services (KZN DoE ELITS) and Jika'imfundo, a school improvement programme operating in all schools in two districts in the province. Jika'imfundo is committed to promoting reading for pleasure, but need to do this cost-effectively. KZN DoE ELITS is responsible for library development and resourcing in the province – but on a very small budget. They struggle in particular to source appropriate storybooks in isiZulu. We were able to demonstrate that the Department could use its current budget to obtain **five** times as many books as would have been possible when using traditional publishing models.

The print solution was a full colour Grade 1, Grade 2 and Grade 3 Story Starter Pack, together with 10 black and white copies of each of the titles for the teacher's class. Five thousand teachers' anthologies were printed at a price of R15.04 per book (around USD1) and 166 000 pupils' books, a price of R2 per book (less than 25cents). Finally, with funding obtained through Jika'imfundo, we prepared a flashdrive of 100 stories (50 in isiZulu, and 50 in English), together with four videos demonstrating how to use the stories. Each flash-drive pre-loaded and branded appropriately cost R50 (around USD5). The goal for our part of the project is to encourage teachers to realise that although it is good to have some titles in paper-based format for classroom use, it is possible to have so many more in digital format (on a flash-drive).

Are the storybooks being used productively to support literacy development?

Open educational resources need to be available and accessible to the target audience, but they also have to be used productively. Appropriate use of the stories for literacy development so that levels of literacy improve in the society is the ultimate goal of an initiative such as the African Storybook even though the goal will be attained indirectly through use of the storybooks by other organisations working in literacy development.

The initiative is at too early a stage for an impact study, but certain trends have been observed in the way that the stories are being used. Pilot sites used the stories from Early Childhood Development through to Primary Three (or Grade 3) and in library settings with older children as well. Active engagement with the stories is mentioned in all reports, as is children's excitement with having the stories digitally available. An unexpected outcome of pilot site engagement was an increase in planning and collaboration among the African Storybook educators at a particular site. In one site, for example, teachers met on Saturday afternoons to plan how to use the stories with the children

during the week, and to support each other to access as well as create and version stories from the website. In some sites, local language stories were used for the first time to support the teaching of reading. Educators reported that while with stories in English, children spell out the words in rote fashion with little or no comprehension, with stories in the local language, there is emotional and cognitive engagement. In multilingual schools in peri-urban areas, where instruction has to take place in Kiswahili or English, the use of stories in other languages spoken by the children has been highly motivating – their language is recognised, and they are authorities in their own language.

Individuals or organisations like schools or community libraries can be supported to access and use openly licensed materials, but an initiative such as the African Storybook needs partners sufficiently interested in the resources and tools to integrate them into their large scale programmes.

In Kenya, the e-learning division of the Kenyan Institute for Curriculum Development (KICD) has together with Saide selected 50 titles in Kiswahili, English, and Ng’aturkana for quality assurance and uploading onto the Kenya Education Cloud. The English/Kiswahili titles are being loaded on the tablets the Ministry is beginning to distribute to each learner in Kenya. The African Storybook initiative has also prepared 70 stories to share with an e-learning initiative linked to the Ministry of Education, iMlango, which is providing internet access and an internet portal for 195 Kenyan schools. Response to the African Storybooks has been extremely positive. For example, in a single month, all 70 stories were read, and there were over 5000 readings of a story in English about HIV and AIDS (*Crocodile in my Body*), and over 6500 reads of a folktale in Kiswahili called *Nayani walioenda huku na huko* (The baboons who went this way and that).

In South Africa, in addition to the project in KwaZulu-Natal described above, African Storybook has signed an agreement with the Department of Basic Education (DBE) stating that 30 titles in six South African languages and English will be quality checked by Departmental officials and prepared for uploading onto the DBE Cloud. In addition, the African Storybook Reader (a free App available on Google Play or the i-Store, containing only our ‘approved’ stories) will also be available for downloading from the DBE Cloud. Also in South Africa, and together with other partners, Saide successfully bid for a large USAID grant, the purpose of which is to improve the reading skills of primary grade learners across all schools two provinces in South Africa. The proposal includes the use of openly licensed graded readers (supplied by Molteno Institute for Language and Literacy) but also the 30 titles in African languages and English referred to above, as well as the numerous additional titles available on the African Storybook Reading App. Since all participating teachers/departmental officials will receive and use a tablet for their training, this presents an opportunity for very large scale and structured use of both digital and print OER.

Conclusion

The mission of the African Storybook initiative is to develop and refine the tools that make it possible for local schools, projects and community libraries – as well as large scale national programmes – to write, adapt, translate and print the local language stories they need for their literacy development activities and programmes. There is evidence that ‘going the open way’ can produce the quantity of stories needed in the languages needed for young children to practise reading. There is also evidence of both enthusiasm for and use of the website and its stories – not only by individual teachers and librarians, but in large scale national and provincial programmes and national platforms.

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