CHAPTER

14

Open Educational Resources for Early Literacy in Africa: The Role of the African Storybook Initiative

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Abstract

There is a drastic shortage of local language, contextually appropriate materials for African children learning to read. This is a major reason for the low levels of literacy of all but the top 10–25% of Africa's children. To contribute to addressing this challenge, the African Storybook initiative is testing an alternative publishing model. The African Storybook website provides not only openly licensed stories for use, but also tools for the translation of stories and tools for the creation of stories, which are in turn openly licensed. Piloting in Kenya, South Africa, Lesotho and Uganda, the initiative is tackling challenges not only of Internet connectivity, access to electricity, and lack of information and communication technology (ICT) skills in the target audience, but also variable levels of preparedness to embrace the concept of Open Educational Resources (OER). However, there is evidence that "going the open way" can produce the quantity of stories in the languages needed for young children to practise and learn to love reading. In addition, the digital open licence publishing approach of the African Storybook initiative both requires and stimulates teacher and community agency. This is a critical component of sustainable literacy development in under-resourced contexts.

Rationale for the Initiative

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). Ideally, children need to have books from very early in life, well before they go to school (O'Carroll, 2011).

But there is a challenge. There are not enough books in African languages for effective early literacy development (Edwards & Ngwaru, 2011; Pretorius & Mampuru, 2007). 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 or distribution networks when producing books for African children in a familiar language.

The African Storybook initiative has responded to this challenge and is testing an alternative way of using information and communication technologoes (ICTs) 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 the creation of stories that 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, neuro and cognitive skills scientists tell us are essential to wiring the brain for reading and complex logical thinking (Hruby, Goswami, Frederiksen, & Perfetti, 2011; Wolf, 2007). The African Storybook initiative does not provide graded readers or a systematic reading scheme, but rather storybooks that are essential supplements to such schemes, encouraging reading for enjoyment as well as practice.

Context

With generous funding from Comic Relief, a British charity, the African Storybook ICT-based OER initiative is being piloted in three countries. Fourteen pilot sites[1] have been 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 are 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.[2]

Educational Challenges Pertinent to the Initiative

The major educational challenge in each of the three countries pertinent to the African Storybook initiative is that, despite increased access to schooling, not enough children are literate (or numerate) by the time they leave primary school. This is partly a result of the fact that too few children have the advantage of structured ECD to prepare them for formal literacy and numeracy learning in

1 Kenya: Lolupe Primary School, Turkana; Munanga Primary School, Kakamega; Oloosirkon Primary School, Ongata Rongai; Uganda: Arua Core Primary Teachers' College and Arua Hill Primary School in West Nile; Busolwe Public Library with two schools and an ECD centre in Eastern Uganda; and Kabbubu Development Centre in Kampala; South Africa: Family Literacy Project in the Drakensberg; three primary schools in Atteridgeville, Pretoria; Paleng children's library in Lesotho.

2 Only one site in Lesotho, hence this country is not regarded as a pilot country.

school. But it is largely a result of poor methods of and the shortage of resources for teaching reading.

Figure 14.1, from the *SACMEQ at a Glance* series of the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ), shows the literacy levels for each of the pilot countries at Grade 6 (Spaull, 2012a).

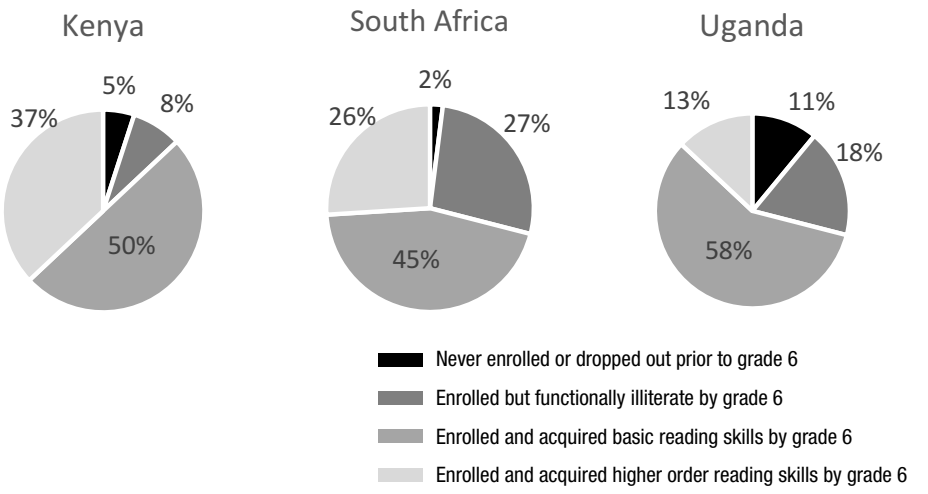

Figure 14.1: SACMEQ III (2007) literacy results in the three pilot countries of the African Storybook initiative.

In even the best-performing country (Kenya), 13% of children are functionally illiterate,[3] and 50% have acquired only basic reading skills.[4] In South Africa, 29% are functionally illiterate and 45% have basic reading skills. In Uganda, 29% are functionally illiterate and 58% have basic reading skills. In South Africa, only about one-quarter of all children reach higher reading levels; in Uganda this figure is 13%.

Furthermore, while the wealthiest 10–25% of children in African countries achieve standards of literacy that are internationally comparable, the poorest 75–90% (a marginalised majority) do not achieve literacy levels that will enable participation in a globalising society. This inequality is particularly noticeable in South Africa where the poorest 25%, the second poorest 25% and the second richest 25% all have a modal reading score just above 400, whereas the richest 25% have a modal score around 650.

Many experts now believe that this challenge will never be successfully addressed unless there are strenuous efforts to enable children to achieve literacy in their own languages. As Suzanne Romaine (2013, p. 17) points out:

> "Linguists must add their voices to this rising tide of criticism of educational policies that remain out of synchrony with multilingual realities. Development cannot reach the most marginalized without speaking to them in their own languages."

3 If students are functionally illiterate, they cannot read a short and simple text and extract meaning.

4 Basic reading skills include the ability to read for meaning and interpret what is read, and do not include the skills of inferential, analytical or critical reading (see "Often Used Variables on the SACMEQ Database" at catalog.ihsn.org/index.php/catalog/4526/download/57869).

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 is difficult.

Each of the three countries has policies that support mother tongue literacy for the first three grades of primary school, with early transition to English, yet each of the three countries struggles with the implementation of this policy in similar ways (Saide, 2013). 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, Pryor, Westbrook, & Lussier, 2011; Janks, 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. In all three of the countries, but particularly in Kenya, there are problems with the status of African languages in the face of English being the language of wider communication (Saide, 2013). This manifests itself in burgeoning private ECD and school provision advertising English medium as a key selling point.

Challenges with ICT and Electricity Supply

The pilot countries differ in infrastructure for the use of ICTs in schools, in the number and range of ICT in education initiatives, and in the levels of skill in the use of ICTs.

Both Kenya and South Africa have a national ICT strategy for schools/education and training, and also have numerous systemic initiatives. However, generally these reach only the socio-economically privileged. The International Telecommunications Union (2013) reports the ratings of various African countries in terms of the ICT development index (IDI), which is a composite index that combines access, use and skill in the use of ICT.

South Africa has an IDI value of about 4.5, with Kenya at about 2.8 and Uganda at about 2. The average IDI score for Africa as a whole is about 2.2, which compares very unfavourably with the world average of 4.8 and even with the developing country average of 3.8 (ITU, 2013, p. 57). This ranking masks the fact that on the sub-index of access, Kenya is ahead of South Africa: Kenya has the largest amount of international Internet bandwidth per Internet user in Africa.

However, Internet connectivity is not the only challenge. According to World Bank figures for 2010–2014,[5] about 82.7% of the South African population has access to electricity compared with only 23% of the Kenyan population and 14.6% of the Ugandan population.

Readiness for OER in the African Storybook Pilot Countries

Conventional publishers in each of the countries are typically not open to releasing their materials under a Creative Commons licence. The reasons vary. Some publishers want to retain control of the versions of the material originally published by them (Cambridge University Press[6]); some are concerned that sharing will impact the competitive edge that comes from the sale of their self-contained literacy development package (the Vula Bula series of the Molteno

5 http://data.worldbank.org/indicator/EG.ELC.ACCS.ZS
6 Personal communication with Niall McNulty on 26 January 2015.

Institute for Language and Literacy); still others simply want to adhere to the royalty-based business model because that is what has worked in the past.

Nevertheless, there are also some signs of change amongst publishers. World Reader reports[7] that publishers are often prepared to allow users to read material on mobiles for free, but require them to pay for reading on an e-reader. This enables schools to pay for some titles, and pupils to access further titles on their phones at home. The African Storybook has encountered three responses:

- a request for a Non-Commercial Creative Commons Attribution-NonCommercial licence (CC BY-NC) so that others cannot make money out of funded materials (e.g., Project for an Alternative Education in South Africa [PRAESA]);
- a preparedness to let one or two of many titles be re-published openly — as an experiment (see, for example, the READ organisation in South Africa); and
- a willingness to donate illustrated stories as part of corporate social investment (see Lapa publishers in South Africa[8]).

In respect of learning and teaching support material for schools, in each of the countries, there is a curriculum unit within the Department of Education (as in South Africa) or an autonomous body responsible for evaluating and approving materials for distribution in schools (as in Kenya and Uganda). The approved materials appear on official lists, and schools are not allowed to order material not on the list. However, there is greater latitude with stories than there is with textbooks.

When it comes to digital and openly licensed material, the countries vary. Kenya's eLearning unit within the Kenyan Institute for Curriculum Development is beginning to grapple with digital materials provision. In South Africa, openly licensed secondary Mathematics and Science textbooks produced by Siyavula[9] made it onto the list of approved texts. However, the method of selection of the approved texts does not exploit the "sea-change" (Attwell, 2012) presented by open licensing — that is, the shift from paying for content to paying for the services around content (such as printing and distribution) or customising for different types of learners or schools or languages.

Each of the three countries has major national or provincial programmes to support literacy and numeracy development in the early grades. These programmes provide materials as well as teacher training to support initial reading in the mother tongue/home language. It is recognised, however, that graded readers are not enough; there have to be storybooks as well — supplementary readers that encourage reading for pleasure and practice. The shortage of such supplementary readers in African languages is a challenge in each country that affects reading achievement.

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 stories and resource materials, do much better than those learning to read in languages like Ateso, in which there

7 Personal communication with Alexander Poltzin on 31 January 2015.
8 Personal communication with the Manager for Children and Youth Publishing, 15 April 2015.
9 http://www.siyavula.com/

are no local language stories or resources in schools. Whereas 9% of Luganda-speaking Primary 2 grade children can read 20 or more words per minute, none of the Ateso-speaking Primary 2 grade children can. 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 2, whereas 18% of Luganda-speaking students reach this target (USAID, 2014). The need for supplementary local language resources is clear.

Model for Development and Implementation of the African Storybook Initiative

The African Storybook initiative is not working directly on OER or ICT policy. Rather, it is implementing an ICT-based OER initiative to address an identified and essential challenge (shortage of local language materials for early reading) that other agencies involved in supporting the education systems in African countries cannot or are not addressing:

- First, the African Storybook initiative is not itself spearheading large-scale literacy development in the pilot countries. Rather it is positioned as a necessary partner to government departments and other large-scale literacy development projects, supplying openly licensed multilingual materials that can be customised and printed for distribution in schools.
- Second, in the pilot sites with pupils who represent the target audience, the African Storybook initiative is testing the website stories and tools, as well as methods of delivery that span digital (online as well as offline) and print. Lessons of experience with regard to access and use are recorded and acted on wherever possible.
- Third, the initiative is working to integrate use of the website and stories in pre- and in-service teacher education programmes. Working with teacher educators has a multiplier effect, as generations of trainee teachers and their pupils pass through their hands.
- Fourth, through a wide network of partners, both in the pilot countries and in other African countries (or international organisations that are supporting them), the initiative is hoping to stimulate expansion to further languages and contexts, without relying on the small team located in Johannesburg to manage the effort. This will be key to the long-term sustainability of the initiative.

In all these ways, the initiative plans to influence practice, giving rise to new ways of working that will, in due course, influence policy and practice.

Evidence from Implementation

The African Storybook initiative embarked on several partnerships with teacher education institutions in 2015, so it is still too early to discuss in detail evidence from implementation of these initiatives. Therefore, evidence from implementation is discussed below as responses to a series of questions:

1. Is it possible to create and translate the stories needed, in the quantities needed, at minimal cost? What role does the licensing of the stories play in this?
2. Are users from the target audience (district officials, literacy development organisations, and teachers and librarians serving rural and peri-urban African communities) able to access and use the website?
3. Are the stories being used productively to support literacy development?
4. Do large-scale national programmes see the benefits of using openly licensed materials? Are they prepared to engage in translation and adaptation prior to publishing?
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Development of the African Storybook website and collection of stories started in 2013. The website was launched in June 2014 with 120 stories and over 600 translations of these stories into 19 languages.

The African Storybook initiative has demonstrated that it is possible, in a relatively short time, to obtain, edit, publish and translate a critical mass of stories for early reading in the languages spoken by people in its pilot sites.

A critical mass for the first year of piloting was understood to be between 40 and 50 stories in the African language (or languages) spoken in the pilot site, and a selection of 70 more for the sites themselves to translate or "version" from English. In a remote place like Turkana in North Western Kenya, virtually the only stories in Ng'aturkana are Bible stories. So, a collection of 45 Ng'aturkana stories is 40 times larger than what previously existed.

The provision of between 40 and 50 stories in each of 10 main languages in the three countries would not have been possible without two things: collecting existing openly licensed stories, or receiving donations of stories that people were willing to have re-published under an open licence; and being able to source not only stories but also translators from the communities around the pilot sites.

Stories have come from: donations of illustrated or un-illustrated stories from authors and emerging authors in the pilot countries; story development processes at universities and in partner literacy projects; and openly licensed stories or folk tales from the Internet. Most authors are very willing to give their stories. To start the website with a critical mass of stories in the languages of the pilot sites, translations were commissioned from local language experts. As the website matures, pilot and other partners are voluntarily translating and adapting because they need the stories in a particular language. Translations are also being obtained from volunteer translators who work under "Translators without Borders."

While the majority of original stories were donated in English, a sizable donation of 22 stories in isiZulu[10] was also received. Because the stories were published under a Creative Commons licence, it was possible for the quantity of stories in African languages to be radically increased, as Figure 14.2 illustrates.

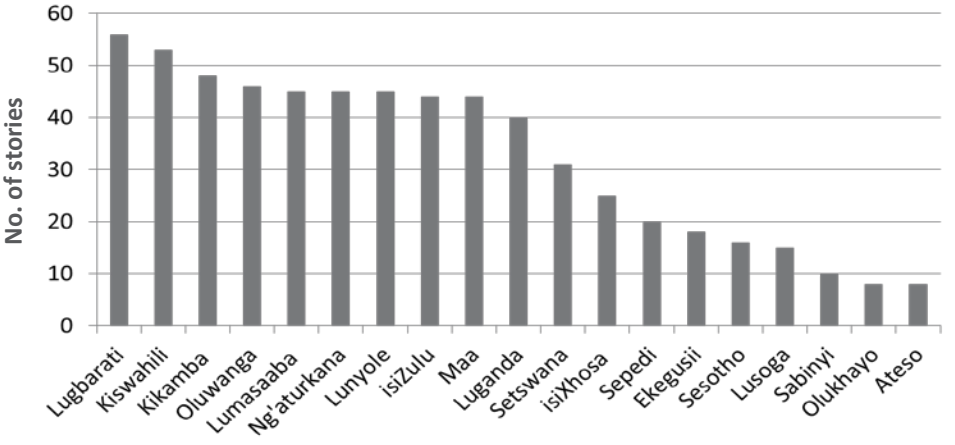

Figure 14.2: Number of stories in African languages in June 2014.

Translation is a powerful way to increase the number of stories in African languages, but it is difficult to create African language translations that are culturally and linguistically alive when the original story is in a language that is so different in history and structure. Hence, the effort after the launch of the website was to obtain as many stories as possible originally written in an African language. Whereas in June 2014, 66% of the stories on the website were originally in English, only 20% of those published in the next six months were originally in English.

Table 14.1 shows that the number of unique stories tripled in just over a year, and there was a steady increase in the number of translations and the number of languages.

Table 14.1: Growth in African Storybook stories, translations and languages

	No. unique stories	No. translations and adaptations	No. languages
3 June 2014	120	617	20
31 Jan 2015	300	1,005	30
28 Feb 2015	317	1,023	42
31 March 2015	348	1,038	42
30 April 2015	373	1,129	52
31 May 2015	389	1,297	52
30 June 2015	404	1,426	53

10 We acknowledge, with thanks, the Centre for Adult Education at the University of Kwazulu-Natal for the 22 donated isiZulu books, the SEED series (http://cae.ukzn.ac.za/Resources/SeedBooks.aspx).

The fact that the stories 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 stories and their translations, it would not have been possible to publish a collection of this size in two years.

Cost is another consideration. Once the African Storybook platform was established, collecting existing stories and receiving donated stories has incurred minimal costs. However, there are costs associated with editing or re-shaping the stories, procuring illustrations as necessary, uploading to the website and providing the necessary metadata. A recent costing has demonstrated an average cost of USD 1,450 per story for a story that is available to thousands to read.

Each story can then be translated into multiple languages. This can be done by committed individuals for no cost. In addition, workshops with local language speakers have proved very effective. A recent example of a translation workshop of 24 participants over two days produced 65 versions of seven existing stories, with translations across eight languages and adapted across three different levels. The exercise has been costed to include workshop costs (travel, per diems, teas and lunches, and a facilitator), a separate quality assurance workshop, and the preparation of the stories and their metadata for uploading. The cost to upload a quality-assured local language translation or adaptation of a previously illustrated African Storybook story is USD 170 per version.

Such a story is then freely available to view or to download or print. Current examples of printing modest runs of 1,000 copies of the books with colour covers and black-and-white pages come in at between US 60 cents and USD 1 per copy.

The initiative is thus demonstrating that it is possible — through sourcing and re-publishing donated and existing openly licensed stories, and stimulating story creation, translation and adaptation by ordinary people — to produce a surprisingly large number of stories and translations of stories in a relatively short time. Once the website is firmly established, the cost of creating new stories, translating, versioning and printing them is minimal.

Are users from the target audience (district officials, literacy development organisations, teachers and librarians serving rural and peri-urban African communities) able to access and use the website?

A frequent criticism levelled at those involved with OER is that enormous effort is spent on creating OER, but the resources are barely used. This is especially the case if the target audience is not accustomed to using the Internet or there are challenges with the necessary infrastructure.

In the pilot sites, the African Storybook initiative is testing what equipment and support are necessary to facilitate access and use among the most under-resourced part of the target audience. To this end, the pilot sites were supplied with devices and a small subsidy. They were not provided with a comprehensive ICT solution like other ICT in education initiatives.[11] They received a small suitcase containing

11 For example, iMlango in Kenya (supplying Internet access, an Internet portal, and e-readers to 195 schools), or South Africa's Cofimvaba Schools District Technology Project, which set up the necessary infrastructure for the entire district before introducing tablets for teaching and learning in Eastern Cape rural schools.

a laptop, portable or standard projector (depending on whether the site had electricity), and a 3 G modem or Wi-Fi router, and memory sticks.

There are two main methods of delivery: the story downloaded and stored on the computer for offline projection in a classroom setting — a "big book" on a classroom wall; and low-cost photocopied booklets for children to use in class or at home. We explore these two methods below.

Digital projection – Digital projection requires a laptop or tablet connected to a digital projector. In situations where there was no power supply in the classroom, a battery-operated, palm-sized projector was used. If the room was well darkened, the story could be projected on the classroom wall or portable chalkboard covered with white paper.

Where necessary, low-cost solar power kits to facilitate charging of the equipment were also provided. As well, some sites received a camera, video camera or voice recorder to facilitate capturing of local language storytelling.

A striking finding after the first year of piloting is that involvement in the project has stimulated the sites to take independent steps to meet their technology needs. For example, at one of the sites, the solar charger option that we were able to afford was not adequate, so the site manager sourced a better option and a better supplier and paid part of the costs of this better option. Other sites were able to attract donations of laptops and projectors. Also, individuals have been inspired to buy their own equipment. For example, the principal of a primary school associated with a community library pilot site was so inspired by an African Storybook workshop that he purchased his own laptop in order to access and use the site.

However, the level of ICT skill of the target audience is low, even lower than predicted. Although all pilot sites were able to access the website and find stories, most educators at the sites are still developing confidence to create, translate and adapt online. For this reason, while there was considerable download activity in 2014, creation, translation and adaptation took place mostly offline in many of the pilot sites. With regard to use of the devices, the country co-ordinator for Kenya reported that (Mhlanga et al., 2013):

> "Six months after the ASP [African Storybook project] had supplied laptops and portable projectors to project sites, some of the sites were still not comfortable with using the equipment, especially the projectors. Instead of projecting stories on a screen for children to read, teachers at one site were getting kids to come and crowd around the one laptop and read stories. At another site, teachers were reading stories aloud from the laptop whilst children listened."

However, by the beginning of 2015, teachers at the site had grown in confidence and skill, and were quite comfortable even with the projectors.

Low-cost printed storybooks – While digital projection is good for whole class reading, many schools are not able to acquire the equipment to make this possible. In addition, children learning to read also need stories in their hands to encourage them to read for themselves.

However, printing out stories from a website in a cost-effective way is challenging. As every printer is different and computers have programmes with different settings, it is impossible to provide a simple set of instructions that will fit every situation. The African Storybook team is therefore supporting pilot sites by printing master copies of stories and putting them in a "flip file" (file with plastic sleeves) so they can be used to create multiple copies of double-sided booklet format stories for the classes. This method of distribution of print copies is also being proposed to the Department of Basic Education in Uganda. They have been alerted to the numbers of stories that can be made available in this way, the increased flexibility in changing or adding to titles in particular languages, and the enormous reduction in distribution costs.

It is also possible to go through a publisher to print multiple copies of the stories (at about USD 1 a copy) or to make a small number of full-colour library editions for ZAR 65 (about USD 7) per double-sided copy on glossy cover stock stitched with a sewing machine! This is what one of the African Storybook partners, Little Zebra books[12] has done with their stories which were published on the African Storybook website.

Are the stories being used productively to support literacy development?

OER 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 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 in the pilot sites.

Pilot sites are using the stories from ECD through to Primary 3 and in library settings with older children. 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 has been an increase in planning and collaboration among the African Storybook educators at a particular site. In one site, for example, teachers meet on Saturday afternoons to plan how to use the stories with the children during the week, and to support each other to access, create and version stories from the website.

In some sites, local language stories are being used for the first time to support the teaching of reading. Educators report that with stories in English, children spell out the words in rote fashion with little or no comprehension, but 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.

An example of the possibilities for use in teacher education settings is contained in this short vignette of an activity from a workshop at a Primary Teachers' College in Eastern Uganda.

12 http://www.littlezebrabooks.com/diy-library-editions/

Student teachers were asked to read the level 4 story *Chicken and Millipede*,[13] translate the simple level 1 English version of the story into their languages (Ateso, Lumasaaba, Lugwere, Lusoga, Leblango, Luganda and Lunyole), and then "perform" these translations before the whole group.

When the students were asked to read aloud a page of the English level 4 version of the story, they struggled with some of the English words, such as *grumpy*, *fuss*, *beak*, *swallowed* and *burped*. Clearly, even though the medium of instruction at the College is English, they have some difficulties with English. They also needed considerable prompting to understand stylistic features, such as repetition, sentence patterns, and selection of words to create an effect. But they loved the story — particularly the pictures. Working through the English version in this way was an enjoyable way to work on students' English.

But the activity did not stop there. After discussing how the story could be adapted for Primary 1 children, the teacher students were then engaged in translating the simple level 1 story into their various languages. The facilitators read the story page by page, and the students wrote each sentence in the new language.

When the translation was complete, 10 of the 250 students read their translations — a different language each time. The other students really enjoyed this — and there were roars of appreciation when a particular student used a clever word or phrase. Clearly the student body is multilingual, and this kind of activity affirmed their multilingualism, as well as their knowledge of their own home language.

In subsequent workshops, the student teachers would discuss how to use stories when they go on teaching practice: how to ask questions that provoke discussion, how to encourage the children themselves to ask questions, how to predict what the story is about from the pictures, how to use the story for the development of vocabulary and understanding of verb tense, and so on.

In this process, the students' multilingual expertise is affirmed and they are in a position to make a real contribution to the stories on the website. But at the same time their own English skills can be developed, and they have access to many local language resources for teaching reading in their classrooms.

Do large-scale national programmes see the benefits of using openly licensed materials? Are they prepared to engage in translation and adaptation prior to publishing?

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. This is one of the ways in which the initiative could become sustainable.

Although the initiative is still in its early stages, there are indications that the advantage of openly licensed local language materials as supplementary readers is recognised in Kenya and Uganda.

In Kenya, the eLearning division of the Kenyan Institute for Curriculum Development (KICD) is considering a process for systematic review of the stories in the African Storybook collection. The African Storybook initiative has been

13 http://www.africanstorybook.org/stories/chicken-and-millipede

approached by a major eLearning initiative linked to the Ministry of Education, iMlango, which is providing Internet access and an Internet portal for 195 Kenyan schools (over 150,000 pupils).

In Uganda, large-scale national literacy development programmes — such as the USAID/Uganda School Health and Reading Programme (SHRP) and the Aga Khan Foundation's Strengthening the Education Systems in East Africa (SESEA) programme — are interested in the potential of the project to provide affordable local language supplementary readers, and are engaging the African Storybook project in the selection and translation of a range of titles.

There have been a number of learnings from the partnership between the SESEA programme run by the Aga Khan Foundation (AKF) and the African Storybook project. SESEA is a five-year project that aims to sustainably improve learning outcomes, with a particular focus on literacy and numeracy, for pre-primary and primary students in selected districts in Kenya, Uganda and Tanzania. In West Nile, Uganda, AKF is working in three districts: Arua, Yumbe and Koboko. The programme equips teachers to teach reading, but key also is the provision of supplementary readers for the libraries and schools. These need to be in the local languages — Kakwa, Lugbarati, and Aringati, not only in English. However, the SESEA staff in West Nile were unable to access readers in these languages.

The African Storybook initiative was able to supply 50 openly licensed stories in Lugbarati and English, from which 10 titles could be selected and translated into the other two languages, uploaded on the African Storybook project website, published, and then downloaded for printing.

In terms of costs, the African Storybook Project provided the content and illustrations in one of the languages free of charge to AKF. However, though content is free to end users such as AKF, the African Storybook has incurred costs in preparing stories for uploading on the website: story editing and, where necessary, commissioning of illustrations as well. The project further incurred costs in working with AKF to get the stories "right" — implementing changes to text and illustrations. AKF paid for the translations into two additional languages, Aringati and Kakwa, but African Storybook checked the translations. Finally, AKF paid USD 1 per book to a publisher for the printing of the titles.

There were a number of learnings from this experience. The first set came from engaging with the feedback from the Ugandan Ministry of Education and Sports (MOES). It was clear that the seven titles were selected primarily because they could be related to the Ugandan curriculum. A great deal of comment was received on the illustrations, particularly those that showed only part of a person or animal instead of the complete person or animal.

The second set of learnings from this engagement is very pertinent to initiatives that attempt to get partners to take advantage of openly licensed material. Usually, ministries of education and teacher training and school improvement programmes rely on publishers to prepare materials according to their specifications. However, a platform offering openly licensed material that can be adapted and translated requires users to assume much more responsibility for editing and publishing. Partners are not necessarily willing or able to take on this responsibility. In the African Storybook project, there was great difficulty getting to an accurate translation of the texts of the two new languages. The

African Storybook publisher (based in South Africa) had to insist that not only the translations but also the subsequent corrections to those translations be typed rather than handwritten. Since she was not working in a familiar language or orthography, she had to cut and paste the correction into the text as she could not interpret handwritten changes. AKF was also reluctant to engage in making the illustration and text changes recommended by the ministry officials; the African Storybook publisher had to provide the necessary publishing services. In other words, although content may be free, publishing services related to that content have to be funded or paid for as well. Many people who need openly licensed material also need publishing services to customise this material.

As has become clear to OER advocates and practitioners, the fact that a resource is openly licensed does not mean that it costs nothing. Each time a resource is re-published, further costs are involved — such as, in this case, adapting the illustrations, extending the number of languages, and printing. These costs are, however, lower than those for conventionally published material: rights for translation into different languages do not have to be purchased; adjustments can be made to digital resources relatively easily; illustrations can be re-used in different versions of the stories; and digital printing from high-resolution PDFs avoids the need for re-design of materials already published on a website.

What are the indications of a sustainable future for the initiative beyond the initial four-year funded period?

In the first instance, sustainability depends on uptake not only of the stories but of the website tools to create new stories or versions of existing ones. Enough progress needs to be demonstrated to secure funding for partnerships in a larger range of countries and/or for wider systemic implementation in an existing country.

Although with support the pilot sites have been able and willing to engage with the website stories and tools, and have demonstrated how the initiative could work in authentic contexts, this does not demonstrate sustainability. It is agencies and individuals who work with the target audience that are most likely to contribute stories and translations in a sustained way. For example, one of our partners, an instructor at the English Language Institute at the University of British Columbia, works with trainee teachers in Mozambique. She has published 11 unique stories with translations into Portuguese and several local Mozambiquan languages that can be used by her students to teach reading. She and another partner, Little Zebra Books, have ensured that, although Mozambique is not a pilot country for the African Storybook initiative, it has a strong presence in the digital library.

A second example is a U.S.-based French-speaking partner working in educational technology for development. Looking for simple-enough reading material for a project in Niger, she came across the African Storybook website. She immediately started translating 17 stories into French, from which they have been versioned into four languages spoken in Niger.

However, while the expansion of the website stories, languages and translations can be achieved in this way, this approach is not a way to attract funds or payment for continued servicing of the website. A more financially sustainable option may be supply of supplementary readers for major national reading improvement programmes. This could be made sustainable through marketing of story

development and publishing services for the customising of openly licensed material for specific countries or curricula.

Conclusions

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. Digital access for rural and peri-urban African users is not an insurmountable obstacle, even though the performance of the website for low bandwidth areas is not yet optimal.

The website is being seeded with hundreds (hopefully thousands) of openly licensed stories, from "first word" books to books for reading to children, so that no one has to start from zero. But the ultimate hope is that there is a website so easy to use and requiring such low bandwidth that organisations and programmes working across Africa in a wide variety of languages and educational systems will be able to read, download, print and create the materials they need.

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