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Local language a medium of instruction: challenges and way forward

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ABSTRACT

The paper reports on a participatory action research study conducted in six rural primary schools in Uganda in 2013 to establish why children taught in the local language had difficulties in reading and writing. Findings through interviews, focus group discussions, reviews of exercise books and lesson observations indicated that though it was easier for pupils to learn the concepts in the local language; challenges ranging from poor translation, inadequate teachers' language proficiency, lack of instructional materials, high pupils' enrolment, lack of administrative support and teacher-centred approach of teaching, affected pupils' learning to read and write. Participants recommended adopting the child-centred pedagogy, incorporating instructional materials, conducting continuous assessment and recording pupils' competencies attained in reading and writing. Teachers need to engage more in Participatory action research in order to reflect on their practices and pupils' learning, and collaboratively decide what works best and what needs improvement in their classrooms.

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1. Introduction

The study was conducted in six rural primary schools in Gulu and Amuru districts in Uganda. This was a period when Northern Uganda was recovering from the 25 years of civil war led by the Lord's Resistant Army. During the war situation, the schools were abandoned, the infrastructures were destroyed, and the teaching and learning materials were vandalised. The schools were relocated to 'learning centres' within the internally displaced peoples' camps. Such learning centres, along with most village schools struggled to stay intact while facing discouraging challenges (McCormac 2008) such as collapsed school management systems, inadequate instructional materials, and widespread trauma among students, teachers and parents. The facilities were overcrowded and they lacked basic hygiene, including water and latrines (Lynd 2007). After the war, the rehabilitation of the infrastructure and restocking of the teaching and learning facilities was done in phases but the facilities are still inadequate.

The targeted schools in this study used local language as medium of instruction (Mol) from grade one to three and switched over to using English as Mol from grade four onwards. The study comprised of a total of primary school teachers, head-teachers, deputy head-teachers, a member of the Acoli Language Board, a Tutor from a Primary Teachers' College and 1200 pupils.

1.1. Background to the study

Language is a crucial factor in teaching and learning and that language could be mother tongue (MT) or foreign or local language. MT in a broad sense is the language of the immediate environment and daily interaction which 'nurture' the child in the first four years of his/her life, while the local language is the language of the immediate or local community that the child is familiar with (Bühmann and Trudell 2008; Ouane and Glanz 2011). In this study, the local language is adopted as Mol from grade one to three and English as Mol from grade four onward.

In sub-Saharan Africa, there are between 1250 and 2100 languages of different status; but in spite of the many languages, many African countries still use the colonial (Government White Paper 1992; Muthwii 2002; Owu-Ewie 2006; Adebayo 2008; Fakeye and Soyinka 2009) or second language as the Mol at different levels of learning (Ouane 2003). Some of those languages neither the learner nor the teacher understand and use well enough. Yet Brock-Utne (2007) noted that children learn better when they can use a familiar language for engaging in interaction and acquiring new knowledge.

Recently, however, there has been a shift towards using language(s) that the learner is familiar with as Mol alongside a second language, either French or English or Portuguese or Afrikaans (Arua and Magocha 2002; Muthwii 2002; Ogechi 2003; Bunyi 2005; Heugh et al. 2007; Akello 2009; Acana et al. 2010; Ngwaru and Opoku-Amankwa 2010; Ahabwe 2011; Draku 2011). This shift is in line with Ouane and Glanz (2010, 30) who affirmed that the use of the local language or a familiar language facilitates the use of effective, child-centred teaching practices which encourage learners to be active and become involve with the subject matter. In addition, UNESCO (2008) recommended that in order to encourage quality in the child's learning, the value of local language for instruction in early childhood and grades 1 to 3 classes must be pertinently identified.

In order to support the implementation of the language policy, a number of reforms were brought forth. For example in Uganda, the language policy was developed (Government While Paper 1992) and in 2007 the Thematic Curriculum (TC) was introduced (National Curriculum Development Centre [NCDC] 2006). The TC language guidelines stipulated that whenever possible the child should learn in the home language or at least in a familiar language. In addition, all written tests that are used for assessment purposes are to be administered in the local language except the assessment in English language competencies. This is because higher achievement levels are reached in literacy when children study in a language which they already have a strong oral command in (NCDC 2006). Other interventions were the formation of language boards, promotion of language writers, formation of translation groups, development of curricular, training of teachers, development of orthographies and instructional materials (Sentumbwe n.d.). The interventions within the thematic curriculum were overwhelmingly many and this negatively affected the outcome of the interventions since the teachers were not prepared in advance to implement them.

For the implementation of TC, teachers were trained in the child-centred pedagogy (CCP), schools were provided with instructional materials, teachers were trained to develop additional instructional materials, and continuous assessment was enforced (NCDC 2006, 2008). Centre Coordinating Tutors (CCTs) and District Inspectors of Schools (DISs) were trained to monitor and offer curricular support to teachers in the use of local language as Mol from grade 1 to 3 and transition to using English as Mol from grade 4 onwards. It should however be noted that in spite of the interventions above, very few pupils in the districts of Acoli, Lango, Teso, Busoga, Budaka, Palisa and Tororo are rated as proficient (Acana et al. 2010) in both local language and English. Pupils of grade three found difficulty in reading and comprehending a story, while many pupils lacked the ability to write words with the correct spelling and were not able to write a grammatically correct simple sentence. The literacy level in English of grade three pupils was equally inadequate. In reading comprehension, the majority of pupils could not read and comprehend a simple story and also lacked the ability to read and describe activities in a picture. Many experienced problems in communicating; they were not able to express their ideas fully in English. In writing, many pupils were not able to write words with the correct spelling or write names of common objects shown in a picture (Muthwii 2002; Acana et al. 2010). Based on the challenges of learning in local language above, the study therefore explored why children who are taught in the local language find difficulties in reading and writing and proposed ways forward. This was made possible through the adoption of the principles of participatory action research (PAR).

2. Participatory action research framework

In order to gain insight into the challenges the pupils taught in the local language go through in reading and writing, a PAR framework was adopted. According to Selenger (1997 cited in MacDonald), PAR acknowledges that the problem originates in the community itself and is defined, analysed, and solved by the community. As a team-oriented practice, PAR brings about change and improvement in the community of practice and may contribute substantially to educational reforms (Morales et al. 2016). The education reforms take place when the stakeholders in education recognise and understand their contribution to the problem at hand. Henson (1996) emphasised that when teachers have ownership of the research process, learning can occur in numerous ways including trying new strategies, evaluating existing programmes, expanding instructional repertoires, engaging in professional development, and most importantly helping teachers develop new pedagogical knowledge. In line with Morales et al. and Hensen's arguments, it was justifiable for teachers as practitioners in the school community to engage in PAR in order to gain knowledge and take ownership of the challenges affecting their practices of using local language as Mol. PAR provided space for discussion, reflection and collaborative decision-making as a means of improving children's learning and teachers' classroom practices.

PAR involves the full and active involvement of participants throughout the research process from the initial stages of identifying problem to the level of communicating final results. PAR processes are cyclical and they entail: identification of problem, gathering data, interpreting data, acting on evidence and evaluating results. In the problem identification phase, Eileen (2000) noted that teachers often have several questions they wish to investigate; however, he advised that it is important to limit the questions to one that is meaningful and doable in the confines of their daily work. He added that careful planning at this initial

stage would limit false starts and frustrations. The data collection phase is an important step in deciding what action needs to be taken and so multiple sources of data such as interviews, focus group discussions (FGDs), and samples of student work are used to better understand the scope of happenings in the classroom. The third phase of interpreting data involved analysing and identifying major themes. During the fourth phase using the information from the data collected and review of current literature, an action plan to guide the study would be designed. As the action plan is being implemented, it is important to continue to document and collect data on the intervention in order to determine if improvement has occurred.

We found PAR framework appropriate for the study because it did not only provide the space for the research team to get involved in the study right from the moment of identifying the challenges and narrowing them to two major challenges, namely, pupils challenges in learning to read and write in local language and teachers' challenges in teaching in local language; but also it helped the participants to propose way/s of improving teaching reading and writing in the local language.

3. Methodology

The methodology was designed according to PAR framework, although only the first four stages were implemented; while the fifth phase was implemented and documented in Akello, Timmerman, and Namusisi (2015). The teachers were fully involved in the first four stages of the PAR framework. The subsequent sections elaborate on how the PAR framework guided the study.

3.1. Problem identification

In order to establish why pupils who are taught in the local language have difficulties in reading and writing, the teachers and pupils of lower primary classes participated in FGDs and group interviews respectively; while the head-teachers, deputy head-teachers, District Inspector of Schools and the CCT participated in in-depth interview. A number of lessons were observed and pupils' exercise books were reviewed. The findings from the different sources above exposed a series of challenges that affected teachers classroom practices and children's learning to read and write in the local language (see sub-section 4 below).

3.1.1. Participants

The study comprised of a total of 24 primary school teachers, six head-teachers, six deputy head-teachers, two CCT, one DIS, a member of the Acoli Language Board, a tutor from a Primary Teachers' College and 1200 pupils. These participants formed the research team. Teachers were selected because they are advocates for, and catalysts of change (Obanya 2010), and therefore no education reform is likely to succeed without their active participation and ownership. Secondly, teachers' professional practices are affected, therefore they should be engaged and involved in the process of understanding the problem and working towards bringing change (Crane and O'Regan 2010).

In this study teachers were not only involved right from the initial stages of identifying the challenges affecting children's reading and writing but also through their team leaders in each school, they coordinated among themselves and with the main researcher in

determining the dates and venue for the school visits and feedback workshop. During the feedback workshop they presented data to fellow participants and participated in validating the findings and filling in the gaps. Additionally, the teachers in collaboration with each other proposed the adoption of the CCP as a better way of teaching reading and writing. They were very instrumental in identifying concepts that needed to be included in the action plan that would actualise the implementation of the CCP because of their experience in using the local language as Mol. Teachers' participation right from the initial stages of the study helped in gaining insight into the challenges children faced in learning reading and writing.

The pupils of grade one to three were involved in the study because they were in a better position to share their experiences of being taught in the local language. The head-teachers, deputy head-teachers, DIS and CCT participated not only as monitors of the implementation of the local language policy but also as supervisors who offer support supervision to the teachers on challenges posed by local language education. The Acholi language board participated since they are in charge of developing the Acholi orthographies (Sentumbwe *n.d.*).

3.2. Data collection

Data were collected through FGDs, in-depth interviews, review of exercise books and participant observations. The teachers participated in FGDs in order to give an overview of the challenges they and the children faced in using local language as Mol. The pupils participated in a group interviews since their views were crucial in helping the participants understand the challenges pupils faced in reading and writing in the local language and to plan ways of improving the situation. We conducted in-depth interviews with the head-teachers, deputy head-teachers, DIS and CCTs in order to find out their views on the use of local language as Mol.

Twelve lesson observations focused on how teachers and pupil interacted in the learning situation. According to Mulhall (2003) observation helps to understand and interpret behaviour. Engaging in observation therefore, did not only help us to understand and interpret the pupils' and teachers' behaviour but also to gain insight into the experiences and challenges they go through in using local language as Mol. Pupils' exercise books were reviewed in order to establish how they write in the local language. The focus of the review was on spelling, punctuation, letter and word spacing, and following lines while writing. As Polkinghorne (2005) noted, observation complemented the findings from FGDs, in-depth interview and review of pupils' exercise books. The use of four data collection instruments increased validity of the findings (Burton and Bartlett 2005).

3.3. Data analysis and interpretation

The data obtained from in-depth interviews and FGDs, lesson observations and reviews of pupils' exercise books were grouped according to the themes and sub-themes that emerged. In all cases thematic analysis was done (Attride-Stirling 2001). In order to discuss, reflect, interpret the finding and plan ways forward, the research team had a one day feedback workshop.

3.3.1. Feedback workshop

The purpose of the feedback workshop was to communicate the study outcomes (Hine and Lavery 2013) to the participants. In this paper, the purpose of the feedback workshop was fourfold: first it enabled the participants to reflect and validate the findings and also to correct errors and identify omissions that may have occurred during transcribing the data. Secondly, it helped the participants to understand the range of similar challenges they were facing in the different schools. Thirdly, it offered the participants the opportunity to identify one core challenge to be studied further; and lastly it offered the space for the participants to propose an intervention to be implemented for the purpose of minimising the challenge of low proficiency in reading and writing.

Among the challenges identified as having a greater effect on children's learning to read and write was the teacher-centred method. This finding is a confirmation of an earlier study conducted in four district in Uganda (Guloba, Wokadala, and Bategeka 2010) in which they found that primary school teachers employed teacher-centred methods of teaching, instead of child-centred methods of teaching which are more effective.

In a study that compared the learning outcome of students who studied under the teacher-centred and the child-centred environments, it was noted that those who studied under the child-centred environment tended to engage in knowledge construction, while those who studied under the teacher-centred environment are characterised by transmission of information that is sadly insufficient to equip students not only with the communication and interpersonal skills, but also literacy skill (Gravoso et al. 2008). According to NCDC (2006), the use of teacher-centred methods as opposed to the CCP explains why there is poor quality education in Universal Primary Education schools. In line with Guloba, Wokadala, and Bategeka (2010), Gravoso et al. (2008) and NCDC (2006) the participants therefore had a strong foundation for re-emphasising the used of the CCP for teaching reading and writing.

To facilitate CCP, Wang and Woo (2007) suggested the use of media and technology, while the NCDC (2006) recommended the use of a variety of instructional materials and taking records of competencies attained. The use of media and technology was not practical in this study setting because of the lack of internet and skilled teachers and so the option suggested by NCDC (2006) was adopted. For effective implementation of the CCP the following were therefore adopted: the use of a variety of instructional materials; taking records of competencies attained, and involving children more in the teaching and learning process. The teachers were to do continuous assessment and keep a research journal for recording their reflections on the teaching and learning process in order to improve not only children's learning but also their teaching practice (NCDC 2006). The teachers, however, had difficulties in recording their reflections in a research journal.

The teachers were then to incorporate the adopted aspects of the TC into their scheme of work and lesson plans. This was purposely to give them freedom and space to exhibit their understanding of the CCP while at the same time creating autonomy and trust in them, and empowering them as contributors in the study. Secondly, to help the participants during implementing and monitoring the CCP to identify gaps in the teaching process and address them through feedback meetings and trainings.

Table 1. Planned activities for grade two classes from mid-February to mid-May, 2013.

Objectives	Activities	Resources	Time-frame	Output
To provide more practice in reading and writing	<ul style="list-style-type: none"> making more reading materials on flash cards modelling letters matching words to pictures 	<ul style="list-style-type: none"> manila cards clay markers pictures charts 	Mid-February to mid-May	<ul style="list-style-type: none"> displayed pupil's work ability to read and write correctly ability to match words to pictures
To use a variety of instructional materials during reading and writing lessons	<ul style="list-style-type: none"> cutting papers modelling letters e.g. b, d, e, y, g, p, j, s, ny, ng and w 	<ul style="list-style-type: none"> papers/card boxes, clay sticks, pair of scissors, charts, flash cards real objects 	Mid-February to mid-May	<ul style="list-style-type: none"> sharps cut out of paper, written letters on flash cards written words on flash cards
The pupils to be able to read and write well	<ul style="list-style-type: none"> break words into syllables read as a class, as group and as individuals matching words to pictures copying words and short sentences involving parents during the lesson talking about pupils' writing with pupils and parents 	<ul style="list-style-type: none"> charts, flash cards, parents pupils' writing manilas markers, coloured pencils 	Mid-February to mid-May	<ul style="list-style-type: none"> displayed pupil's work, ability to read at class, group and individual levels, copied words/sentences correctly writing short sentences not across the pages parents' responses on pupils reading and writing records of discussion on pupil's writing

3.4. Action based on data and reflection

In order to prepare an action plan, challenges pertaining to reading and writing were identified from the four grades during a feedback workshop. For example, in grade two it was noted that most pupils were unable to read individually, others failed to read words with more than three syllables, while others had difficulties in reading full sentences; and there was evidence of rote learning. In writing on the other hand, there was poor letter shaping, for example, b, d, e, y, g, p, j, s, ny, and ng, and some pupils wrote across the exercise book from one page to the next.

To address the challenges, only one action plan was prepared for each grade. This was because the different grades had similar challenges and secondly, it was to help the teachers learn from each other's experiences of implementing the CCP. In this paper, the action plan was based on the challenges identified from grade two for illustration (see Table 1 under sub-section 4.2).

3.4.1. Training needs

After developing the plan for the implementation of the CCP, the teachers raised a concern that they were not sure of how to incorporate the CCP in their scheme of work and to actually implement it and so they needed to be trained. The teachers' request for training was not a surprise because it emerged during the interviews and also through findings in recent studies that have shown that many teachers have not been trained in the use of local language for instruction (Heugh and Mathias 2014; NCDC 2008). Therefore to bridge the gaps in training needs, a one day workshop was organised focusing on the following aspects: methods of

teaching reading and writing, the use of instructional materials and conducting continuous assessment within the CCP. These training aspects were in line with the skills stipulated in the guidelines for implementing the thematic curriculum (NCDC 2006). The training was facilitated by the CCT and Tutors. The CCT was involved because he was both a supervisor and trainer of teachers in implementing and monitoring the local language policy, while the Tutors were experts in the methods of teaching reading and writing. After the workshop the teachers incorporated aspects that were missing in their scheme of work and they prepared to implement the CCP for teaching reading and writing in the local language.

4. Findings

In this section, the third and the fourth phases of PAR cycle are presented. The third phase involves interpreting data, analysing and identifying major themes, while the fourth phase involves using the themes in phase three to design an action plan to guide the study. The action plan (Table 1) was implemented and documented in another study (see Akello, Timmerman, and Namusisi 2015). From the analysed data seven themes emerged: translation and teachers' language proficiency, language preferences, instructional materials, methodology, assessment, administrative issues, teacher: pupil ratio, admission, parental role and teacher preparation.

4.1. Emerging themes

4.1.1. Translation and teachers' language proficiency

The curriculum for the lower primary classes in Uganda is written in English and yet the Mol in the rural areas is the local language. Each subject teacher is therefore tasked with the responsibility of translating the curriculum into the local language and preparing the scheme of work and lesson plan. This task is challenging to the teachers since not all teachers have the skills of interpreting and translating. The lack of skills has led to many teachers to misinterpret and abandon the use of local language as Mol (NCDC 2008). And even if they are proficient, there are some concepts that are not easily translated from English into the local language. The poor translation affects the subject content of what is finally taught to the children. Though some teachers worked in groups to do the translation, the quality of the translated text depended so much on their levels of proficiency. The challenge of translation was substantiated by teachers during a FGD:

It is very difficult to translate. It becomes even harder during scheming. There are some words that we cannot translate correctly. We sometimes gamble in translating. So if the school administration could provide us with the text books in the local language from grade one to three concerning the themes in the curriculum, it would be helpful.

In an interview with the DIS on the use of local language as Mol, he stated that it was the right approach that would give children the foundation for learning new concepts. He, however, pointed out the challenges teachers face in managing the curriculum written in English.

The concepts can be understood very clearly in English but it becomes a challenge when a teacher wants to translate it into the local language. And this is because during the introduction of the thematic curriculum, there wasn't enough time to train teachers on how they can effectively implement the curriculum in the local language. Definitely, there was bound to be challenges.

The teachers' challenges in translation are not a new phenomenon. The NCDC (2008) earlier recognised that the implementation of the thematic curriculum was started without a well laid down system of having teachers who are competent to teach using the local language in place.

4.1.2. Language preferences

In an interview with the head-teachers, they recommended the use of local language as Mol right from the kindergarten and English be taught as a subject as a better approach.

If we want to use local language well, then local language should start right from the kindergarten. But if at the kindergarten we continue to use English as Mol, then at primary we change to local language, eventually it becomes a tag of war for the learners to understand well. For one language to be used as medium of communication, it should begin right from the kindergarten. Worst still the local language should have been time-tabled and taught after grade three to grade seven. Unfortunately, in schools where it is time-tabled it is usually replaced by another subject or activity. What are we doing to the children?

The pupils however, had a contrary view on the Mol. They preferred English as Mol right from grade one because of the educational benefits that accrued from it. They pointed out that the national examination was conducted in English and so learning English early would help them to read and understand the questions better and secondly they wanted to learn English early in order to be able to communicate with people from other ethnic communities and prepare for their future career. The pupils' preference to English as opposed to the local language is not particular to the selected school only, studies elsewhere have reported similar situations (Muthwii 2002, 2004; Trudell 2007; Carol and Kwiri 2003).

4.1.3. Instructional materials

The arrangement for the implementation of the thematic curriculum was that the children should be provided with both text books and readers to help boost their reading skills (NCDC 2006). The situation in the schools, however, was different; the teachers had the guide but the pupils' books were missing. A teacher reported that the children could not practice reading because the text books were inadequate and class readers were not there. During observation of a lesson on reading, a teacher had to write the stories on the chalkboard for the pupils to copy in their exercise books since the readers were not available. This situation is not unique to the schools in Uganda alone, many classrooms in developing countries, especially in poor and rural areas, possess one textbook, typically in the hands of the teacher. Pupils spend most of their time copying the content from chalkboards to notebooks, and then memorising it (UNESCO 2008).

In some schools, text books and the recommended charts that should accompany the curriculum for a particular unit were missing and yet the teachers were expected to teach. In another class, one book was shared among four to five children and in some instances as children scrambled for a book, they ended up tearing it. A teacher recounts her classroom situation:

One time only 30 books for grade four were brought and yet there were 102 pupils. I gave out the books and some pupils missed them. In another event I needed a wall chart that was recommended in the curriculum for a specific theme, but it was not there. Where would we get them from? How would we know what the wall chart looked like?

The inadequate instructional materials is a long standing challenge to the implementation of the local language as Mol. For example, in a study by Heugh and Mathias (2014) and Oketcho (2014), they found that approximately 10 pupils were trying to read from one reader and so because they were not able to read, most learners recited from memory. The DIS, however, insisted that there should have been enough resource books in place to facilitate the training and implementing of the local language policy.

In relation to the lack of charts, a head teacher admitted that the charts were not given to all schools but explained that the content of the wall chart described in the curriculum were examples of how sentences could be built up and also examples of proverbs that can be used for teaching. He emphasised that the teachers could use their knowledge of sentences construction and proverbs in local language to prepare appropriate charts for teaching. In his opinion, the teachers lacked creativity. The teachers' lack of creativity is a serious draw back to the development of instructional materials and the implementation of the local language policy and yet according to NCDC (2008), the teachers are urged to participate in providing locally produced materials which are relevant, low/no cost and appropriate to the teaching-learning process.

4.1.4. *Teaching method*

The teachers in sharing their experiences in using local language as Mol noted that children were active in the class, enjoyed the learning and interacted freely with each other since they understood what they were learning. They also reported that using English as Mol from grade four was a welcome change for the children but added that, 'though they are interested in learning in English, they cannot read texts written in English and even when they are given text to copy, they make a lot of errors'. The pupils' challenge in reading in English came to light during a FGD when pupils of grades three and four were asked to narrate stories in English. They could hardly make a simple correct sentence but when asked to narrate a story in the local language, they were excited and did it quite well. The transcript below from a FGD illustrates pupils' difficulties in reading in English:

Akello: who can tell us a short story in English? Who is ready to do it?

Pupils: Silence (no response)

Akello: Who can tell us in English what happened as you were coming to school today? Kilama (not real name), are you ready?

Pupil: No. I can't manage (response in Acoli).

Akello: What about a story in Acoli?

Pupil: I can try.

Much as it has been noted that the pupils have low proficiency in reading and writing, the teachers too have challenges in teaching the sounds and syllables. Most of them confuse syllables for sounds. An experienced teacher reported:

During our time when we were reading 'Cako Kwan I leb Acoli', the sounds and syllables were clearly differentiated. This sounds /b/ is confused with [ba] which is a syllable. The first thing to be taught is the letter sounds, /b/ not [ba], /l/ not [la], /ng/ not [nga] and /d/ not [da]. For example, the word 'bag'. You are to teach the individual sounds first then combine them to form a word. It is /b/ not [ba], /a/ not [aa] and /g/ not [ga]. If you teach syllables, then the pupils will pronounce it as [baga]. This is misleading and confusing for the pupils.

The failure of the children to learn reading and writing is blamed on the teachers who were new in the teaching profession. It was alluded to that they were not competent both in the English and local language sounds. One of the long serving teachers lamented:

When it comes to the sounds of the local language, it is even worse. Even from the training colleges, some of the students do not know the sounds and even how to write the local language. Some student teachers in writing, mix capital letters with the small letters. I think even the tutors are not well versed with teaching sounds because these student teachers do not know how to teach reading. I think the problem is right from the training college.

One of the tutors during a feedback workshop session raised concern about the blame that was thrown on the training colleges for not teaching the student teachers well. She asked, 'Is it the primary school teachers who give poor background to the student who joins the training colleges or is it the tutors who do not prepare the student teachers well for teaching in the primary school?' To answer these questions, one may need to carry out a comprehensive study, however, this is beyond the scope of this paper.

4.1.5. Continuous assessment

Assessment is a very important component of the TC since it helps teachers to check not only children's learning but also their own teaching practices and to prepare better for the next lesson. In this study though the teachers were aware of the importance of assessing children, they limited themselves to the end-of-unit and end-of-term assessments. It was, however, noted while reviewing pupils' exercise books that although the children did class exercises, the teachers hardly marked the books and no constructive feedback was given. The teachers, conversely, blamed the lack of marking books on high children's enrolment that made doing continuous assessment unprofitable. In agreement with the teachers, the DISs said:

The class teacher system is still a big challenge to assessment because the teacher: pupil ratio is high. That affects the quality of teaching and learning in the thematic class because teachers do not effectively carry out continuous assessment, which is part and parcel of the implementation of the TC. More so, pupils' books are rarely marked and so it is hard to establish whether learning has taken place or not.

The views of the teachers and DIS are in line with that of Rateng (1992) who noted that large classes will make the teachers neither able to meet learning needs of the pupils, nor be able to mark pupils assignments thoroughly and promptly as required. Consequently, learners suffer low quality teaching and lack of continuous evolution of the learning process.

4.1.6. Administrative issues

The school administration is expected to provide instructional materials and put up infrastructures in order to create a conducive environment for learning.

4.1.6.1. Provision of instructional materials. Instructional materials are central for the successful implementation of any programme. The teachers reported that some of the materials were to be provided by the Ministry of Education and Sports and some like manilas and markers were to be provided by the school administration. In some cases pupils brought the materials for preparing their instructional materials from home. In some schools, however, the materials were provided, but the teachers did not use them since they lacked drawing skills. In schools where teachers were ready to draw, the school administration did

not provide the required materials. In general, the teachers relied on the local materials within reach of school to prepare instructional material. A teacher narrated her plight:

Sometimes we improvised by buying manila cards, markers and sometimes we asked pupils to bring banana fibre and short grass for making ball, skipping ropes and toys. We could have done better, but partly the administration did not support us even when they were aware that we had difficulties. When we made requisition, we were told that there was no money.

In another school where the instructional materials were prepared, they were removed and destroyed by other children because the class in which they were stored was turned into a dormitory. A teacher recounted her frustration:

Last term I prepared so many good learning aids for grade 2 class and the children were coping up well with reading and writing, but when I came back for third term, I found that the learning aids were destroyed and the class was turned into a dormitory for grade 7 pupils. You can even see it there (points to the class). Now I cannot begin preparing others for the third term.

The incomplete infrastructures in the lower classes posed challenges to care and protection of instructional materials prepared. Out of the six schools visited, a grade four classroom had no door and window shutters, and it had a mud floor. A teacher described the nature of her classes:

The classroom situation is unacceptable. For my school, every door is left open and anybody can enter freely. So the prepared learning aids were destroyed by children from the upper classes. Teaching the children became very difficult without instructional materials. Children want to hear, see and touch then they learn.

According to Rateng (1992), teacher-made materials take a lot of the teacher's time and efforts to prepare, therefore they should be stored carefully after use so that such efforts does not turn to waste. Therefore pupils should never be allowed to tamper with them without proper guidance and supervision.

Much as the lack of instructional materials is blamed on the school administrations, some parents and teachers also have a stake in it. For example, in all schools some teachers were not creative enough to use the local environment. In order to minimise the challenge of instructional material, Rateng (1992) encouraged the teachers and administration to engage in constant curriculum material review on the basis of cost-benefit analysis. In this way appropriate and cheap materials can be improvised to aid teaching.

4.1.6.2. Infrastructure. The impact of crowded classroom was immanent in the schools visited. Overpopulation caused difficulties in class management and movement for the teacher and pupils alike. This was confirmed during lesson observation in which we saw four pupils squeezed on one desk. In some cases five smaller children sat at a desk. This lack of space did not give the children the right posture for positioning themselves to write, let alone the space to put their exercise books for writing. A class teacher of 112 pupils articulated her challenge:

My class is really crowded. There is over-enrolment. Four to five pupils sit at a desk. I do not even have space for movement. Sometimes I step on them and other times they step on each other. Secondly my teaching time is partly spent on managing the crowded class.

Rateng (1992) noted that overcrowding makes movement around the class very difficult for both the teacher and the learners; and it hampers the teacher's role and effectiveness as a supervisor. According to UNESCO (2008), the dilapidated state of schools and overcrowded classrooms add up to unsatisfactory learning conditions.

4.1.7. Teacher: pupil ratio

The imbalance between enrolment, recruitment of teachers and the provision of facilities to cater for the increasing number has remained a glaring problem. Evidence from class observation showed that pupils' number ranged from 90 to 130 per teacher. In one school all the children in grade one lacked the desks for sitting, while in all schools four to five children sat at a desk. The crowded classroom does not only deny children chances of participating in the learning process but also leads to increased workload for teachers. When teachers' views were sought about the number of pupils in class one of them responded:

Their number is big. They are too many to be taught because with grade one, you need to teach them individually according to their interest. You see? So when you teach the whole class like that and you don't care for their individual differences, they don't learn.

The teacher's response reflected a similar situation in Thailand in which due to the large classes teachers adopt the lecture based instruction, resulting in passive, non-participative, and disengaged students (Vaiyavutjamai and Clements 2006). Other studies on the effect of class size on learning also pointed out that crowding in classes decrease classroom engagement and results in poor learning whereas in small classes pupils receive more individual attention from teachers, participate actively and learn (Fortes and Tchantchane 2010; Blatchford, Bassett, and Brown 2011). This high teacher: pupil ratio affect learning and so there is need to devise effective ways of teaching large classes.

4.1.8. Children's admission

In all the schools we noted that some children lagged behind in learning and the school administration was responsible for it since they continued admitting pupils for more than a month into the term. Some children were under-aged and so they found it hard to participate in the activities that the older children were involved in. A teacher of grade one reported:

New enrolment took place daily. So those who were enrolled late found it hard to catch up with the rest of the children. Giving them remedial to bridge the gap in learning created another challenge since the content was too much. Secondly, some children are under-aged. Like I have a five year old boy in grade one who finds it hard to grasps the concepts and he will find difficulties in the future. We complained but we could not reach a consensus because the parent wanted the child to be in school. We are working like baby-seaters. Some need mother's love. It takes time for the teacher to learn such children.

In other schools on the contrary, children admitted were over-aged and due to the big age gap, they felt inferior and sometime dodged classes, therefore resulting into poor performances. Another teacher testified:

Some are above the age of grade one children. For example there is 13 years old girl who has been a baby-seater for a long time and now they have decided to send her to study. She does not fit in grade one, she spends most of her time with those in the upper classes. She feels inferior in the class. Treating her at the level of grade one is being unfair to her.

4.1.9. Parental role

Parents' involvement in the education of the child is an important motivating factor for learning. In this study, it was realised that some parents exhibited a non-committal behaviour to the education of their children. Some parents think that when they have sent the child

to school, then everything should be catered for by the school. A teacher described the parents' inattention to their children's education:

Parents are aware that they should support their children's learning but they do the contrary. They send the children to school without writing materials or with only one exercise book that they used for all the subjects. Sometimes the children have no pens and they borrow from their colleagues. In other instances, when some children stop on the way and go back home, the parents do not bother to come to school to find out why. Some of them do not even ask the children about what they have learnt at school and do not even support them in doing homework. They expect that the child will get all the support from school, yet learning begins from home. The reading culture should begin from home, then the teacher can supplement.

Jackson and Remillard (2005) highlighting the role of the parents stressed that providing a place for the child to learn at home and asking a child about school, contribute significantly to children's approaches to learning, especially motivation and attention and low level of classroom behaviour problems. In addition, Bradley (2002) emphasises that practices such as reading to children, using complex language, responsiveness, and warmth in interactions promote children's development of skills.

4.1.10. Teacher preparation

The challenge schools are facing in the implementation of the local language as Mol is the inadequate preparation of teachers up to the level of teaching itself coupled with negative attitude. The teachers' lack of preparation was echoed by the DISs:

Many of the teachers have negative attitude towards using local language as Mol. Many of them for generations, almost 100% were not trained to use local language as Mol; and so when this reform came, the amount of time for training teachers to take the reform was inadequate. The Ministry of Education should have known that when a reform comes, one thing is tackling the attitude because in most case there is resistance to innovation.

The teachers in defence of their lack of skills in implementing the language policy, blamed the trainers for the lack of follow-up and support supervision after the training. One of them insisted, 'since we had the training nobody has come to help us in the translation. The worst thing we had a facilitator who was a non-Luo speaker. He used English throughout and so we gambled with translation'. A head-teacher too shared a frustrating experience he went through during the training: 'we had to sit together to translate, but we ended up adulterating the language because we were not prepared for the activity'. DIS shared in the teachers' sentiments about the lack of follow up after the training, he criticised the MoES for the laxity in planning for support supervision and he reiterated that, 'for the implementation of the TC to take off well, the Ministry of Education should have planned for support supervision for a period of time before relaxing it'. The lack of preparation for the introduction and implementation of the TC was attributed to the inadequate duration of training for the teachers of the different classes. A DISs testified:

The duration for training was not enough. I remember participating in the training. The TC was first introduced in grade one and it took two weeks. To me that was a bit adequate. However the training of teachers of grades two and three was done in a rush. There should be consistency when a reform is being introduced. With that kind of training you cannot expect effective implementation

The lack of preparation for actual teaching was evidence in three classes. For example in one class a teacher held the instruction material on her chest as she was teaching. In another class a teacher wrote a different word on the board but kept reading a word that was not

there. The pupils also kept repeating. In grade three class the drawings on the chart were tiny and could not be seen from the back. The persistent cry for the lack of preparation from the key players in implementing the TC is a clear indication that the policy makers have not envisaged clearly how to roll down policies to the grassroots in order for it to take off effectively. As Dyer (1999) puts it, there is an urgent need for research that focuses on the implementation process in order to improve our knowledge on the actual processes of change, the potential problems and issues that can emerge and methods of addressing them.

4.2. Designed action plan

The design of the action plan was based on the challenges identified is the third phase of PAR. In an effort to address children's challenges in reading and writing in the local language, the participants, the majority of who were the class teachers, proposed the implementation of the CCP as opposed to the teacher-centred method. For the practical implementation of the CCP, the participants identified and outlined the objectives to be achieved based on the areas of weaknesses that was affecting children's learning to read and write in the local language. They also proposed the activities to be carried out during the teaching and learning process and identified the resources that would be needed for the implementation of the CCP. The timeframe for the implementation of the plan was aligned to the school term calendar and the possible outcome were anticipated. These proposals are detailed in the action plan below (see Table 1).

5. Conclusion

In this study we had set to find out why children who were taught in the local language found difficulties in reading and writing with the intention of proposing a way forward. Guided by PAR framework, the participants identified several challenges such as teacher-centred approach of teaching, poor translation, teachers' language proficiency, lack/inadequate instructional materials, ineffective assessment, lack of administrative support, high pupils' enrolment, learner's background, lack of parental involvement and poor teacher preparation. These challenges were too many and could not be addressed at once and so, it was appropriate that the participants limited the challenges to one that was having a greater impact and was doable in the confines of their daily work. Among the challenges, teacher-centred method was rated as having a greater impact on children's reading and writing in the local language. In order to minimise this challenge, the participants proposed the adoption of a CCP. It was agreed that as the CCP was being implemented, the teachers were to incorporate a variety of instructional materials, carry out continuous assessment and keep records of competencies attained for purpose of improving children's competencies in reading and writing in the local language.

It should however be noted that it was not the first time the issue of implementing the CCP was emphasised. It came into operation in 2007 with the introduction of the thematic curriculum in Uganda. Looking back, it can be said that a number of changes took place. For instance, the reintroduction of the use of the local language, establishment of the local language board to support the development of orthographies and the establishment of a supervisory support from the teacher training colleges. Nevertheless, a lot still remains to be put in place in order to realise the intended goal of reintroducing the use of the local

language as Mol. For instance the books need to be provided and more teachers need to be recruited to cater for the ever increasing number of children enrolling for primary education.

The adoption of the PAR was appropriate for the study since it helped the participants to be involved in the study process right from the beginning of identifying problem up to developing an action to be implemented at a later stage. Participation in PAR helped them to own the challenges of teaching reading and writing and to propose ways forward. The children too clearly stated their preferences for English as a Mol as opposed to the local language and also request that the teachers prepare for them reading materials to help them improve their reading skills. In this instance it is clear that through participating in PAR the children found the space to share their opinion about their own learning.

In the initial stages of the study, it would look like the teachers were blaming every one for all the things that did not go right in the classroom and in children's learning. However, later on, they were able to recognise their contribution to the challenges in their classroom and so they pledged to make changes in form of suggesting an intervention. This recognition and owning up of their contribution to the challenges was made possible through PAR that gave them the space to reflect, discuss and see clearly the root cause of the challenge and therefore proposed a way of handling it to improve practice and promote children's learning.

6. Implication for practice

There is clear evidence from this study that suggest that PAR is a worthwhile investigation for teachers to undertake. This is because it offers teachers a safe space to share, reflect, collaborate, and participate (Mills 2011; Holter and Frabutt 2012) in the process of inquiry that leads to addressing areas of concern in children's learning and in their own classroom practices. Additionally, action research provides teachers with the technical skills and specialised knowledge required to effect positive change within classrooms, schools, and communities (Stringer 2008). Ultimately, the solutions-based focus, emphasis on fostering practitioner empowerment, and pragmatic appeal of action research collectively render this research methodology a worthwhile professional development activity for teachers.

At the introduction of the thematic curriculum, the teachers were encouraged to use the CCP but they did not implement it with the reason that CCP can only be practical and effective in small classes of about 40–50 pupils. Collaborative participation in identifying, reflecting and discussing the challenges, helped the teachers to view their role as involving reflection on issues that affect their practice and children's learning and of devising means of improving their practice. In fact they realised that there was great power in collaborating with others to address common issues. It is therefore important for teachers to work in collaboration with other teachers in identifying challenges that pertain to their practice in order to help them come with ways of improving their practices.

Through involvement in PAR there was substantial change in attitude in the ways teachers viewed their practices. Instead of focussing only on the challenges, they realised that they could initiate change even if the situation looked deplorable through creatively working in collaboration with teachers from six different schools. As a study team they went a step further to propose and plan for change in order to improve their teaching practice and children's learning. The school administration should therefore support teachers in engaging

in action research as a means of promoting positive change in attitude and improving the teaching practice.

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References

- Acana, S., D. Kyagaba, A. Opman, K. Omala, K. Jumanyol, and L.B. Sserunkuma. 2010. *The Achievement of Primary School Pupils in Uganda in Numeracy, Literacy in English and Local Languages: National Assessment of Progress in Education*. Kampala: Uganda National Examinations Board. http://www.uneb.ac.ug/Admin/images/MERGED_REPORT_2010_-_primary.pdf.
- Adebayo, O.D. 2008. "The Impact of MT on Students' Achievement in English Language in Junior Secondary Certificate Examination in Western Nigeria." *Journal of Social Sciences* 17 (1): 41–49.
- Ahabwe, V. 2011. *Globalisation and the Mother Tongue in Uganda: An Examination of Public Perceptions to Native Languages in Education Today*. Colne: LAP Lambert Academic Publishing.
- Akello, D.L. 2009. "Mother Tongue Word Order Competence and Second Language Writing Skills: A Case Study of Acoli and English." *Journal of Science and Sustainable Development* 2 (1): 47–49. doi:10.4314/jssd.v2i1.67557.
- Akello, D.L., G. Timmerman, and S. Namusisi. 2015. "Teaching Reading and Writing in Local Language Using the Child-centred Pedagogy in Uganda." *Language and Education* 30 (3): 252–266. doi:10.1080/09500782.2015.1106553.
- Arua, E.A., and K. Magocha. 2002. "Patterns of Language Use and Language Preference of Some Children and Their Parents in Botswana." *Journal of Multilingual and Multicultural Development* 23 (6): 449–461. doi:10.1080/01434630208666479.
- Attride-Stirling, J. 2001. "Thematic Networks: An Analytic Tool for Qualitative Research." *Qualitative Research* 1 (3): 385–405. doi:10.1177/146879410100100307.
- Blatchford, P., P. Bassett, and P. Brown. 2011. "Examining the Effect of Class Size on Classroom Engagement and Teacher–Pupil Interaction: Differences in Relation to Pupil Prior Attainment and Primary vs. Secondary Schools." *Learning and Instruction* 21 (6): 715–730. doi:10.1016/j.learninstruc.2011.04.001.
- Bradley, R. H. 2002. "Environment and Parenting." In *Handbook of Parenting: Biology and Ecology of Parenting*, edited by M. H. Bornstein, Vol. 2, 281–314. Mahwah, NJ: Erlbaum.
- Brock-Utne, B. 2007. "Language of Instruction and Student Performance: New Insights from Research in Tanzania and South Africa." *International Review of Education* 53 (5–6): 509–530. doi:10.1007/s11159-007-9065-9.
- Bühmann, D., and B. Trudell. 2008. *Mother Tongue Matters: Local Language as a Key to Effective Learning*. Paris: UNESCO.
- Bunyi, G. 2005. "Language Classroom Practices in Kenya." In *Decolonisation, Globalisation: Language-in-education Policy and Practice*, edited by A. Lin and P. Martin, 133–154. Cleverdon: Multilingual Matters. ISBN185398240
- Burton, D., and S. Bartlett. 2005. *Practitioner Research for Teachers*. London: Sage.
- Carol, A. S., and K. T. Kwiri. 2003. *Study of Teachers' Situation in Northern Uganda in the Context of Quality Educators For All Project*. Education International: Oxfam Novib.
- Crane, P., and M. O'Regan. 2010. *On PAR Using Participatory Action Research to Improve Early Intervention*. Department of Families, Housing, Community Services and Indigenous Affairs, Australian Government. <http://www.ag.gov.au/cca>.

- Draku, F. 2011. *Language Difficulties Thwart Implementation of Thematic Curriculum*. Kampala: Uganda Radio Network. Accessed March 19, 2011. <http://ugandaradionetwork.com/a/story.php?sD32300>.
- Dyer, C. 1999. "Researching the Implementation of Educational Policy: A Backward Mapping Approach." *Comparative Education* 35 (1): 45–61.
- Eileen, F. 2000. *Action Research*. Providence, RI: Brown University.
- Fakeye, D.O., and A. Soyinka. 2009. "Indigenous Languages in Pre-primary and Primary Education in Nigeria-beyond the Façade." *European Journal of Social Sciences* 10 (4): 565–573.
- Fortes, P.C., and A. Tchantchane. 2010. "Dealing with Large Classes: A Real Challenge." *Procedia - Social and Behavioural Sciences* 8: 272–280. doi:10.1016/j.sbspro.2010.12.037.
- Government of Uganda. 1992. *Government White Paper on the Education Policy Review Commission Report*. Kampala: UPPC.
- Gravoso, R. S., A. E. Pasa, J. B. Labra, and T. Mori. 2008. "Design and Use of Instructional Materials for Student-Centered Learning: A Case in Learning Ecological Concepts." *The Asia-Pacific Education Researcher* 17 (1): 109–120. doi:10.3860/taper.v17i1.353.
- Guloba, M.M., J. Wokadala, and L. Bategeka. 2010. *Does Teaching Methods and Availability of Teaching Resources Influence Pupils' Performance: Evidence from Four Districts in Uganda*. Kampala: Economic Policy Research Centre.
- Henson, K.T. 1996. "Teachers as Researchers." In *Handbook of Research on Teacher Education*. 2nd ed., edited by J. Sikula, 53–66. New York: Macmillan.
- Heugh, K., and B. Mathias. 2014. *Implementing Local Languages Medium Education in the Early Primary Curriculum of Ugandan Schools: A Literacy and Adult Basic Education (LABE) Intervention in Six Districts in North and North West Uganda*. Kampala: Literacy and Adult Basic Education.
- Heugh, K., C. Benson, B. Bogale, and M.A.G. Yohannes. 2007. *Study on Medium of Instruction in Primary Schools in Ethiopia: Final Report*. Addis Ababa: Addis Ababa University.
- Hine, G.S., and S.D. Lavery. 2013. "The Importance of Action Research in Teacher Education Programs." *Issues in Educational Research* 23 (2): 151–163.
- Holter, A. C., and J. M. Frabutt. 2012. "Mission Driven and Data Informed Leadership." *Catholic Education: A Journal of Inquiry and Practice* 15 (2): 253–269.
- Jackson, K., and J.T. Remillard. 2005. "Rethinking Parent Involvement: African American Mothers Construct Their Roles in the Mathematics Education of Their Children." *School Community Journal* 15 (1): 51.
- Lynd, M. 2007. *Evaluation of the REPLICA Project DRAFT REPORT*. School-to-School International for Creative Associates International, Inc.
- McCormac, M. 2008. *Education and Fragility in Northern Uganda*. American Institutes for Research under the EQUIP1 LWA.
- Mills, G. E. 2011. *Action Research: A Guide for the Teacher Researcher*. 4th ed. Boston, MA: Pearson.
- Morales, M.P.E., E.L.R. Abulon, P. Roxas-Soriano, A.P. David, V.H. Hermosisima, and M. Gerundio. 2016. "Examining Teachers' Conception of and Needs on Action Research." *Issues in Educational Research* 26 (3): 464–489.
- Mulhall, A. 2003. "In the Field: Notes on Observation in Qualitative Research." *Journal of Advanced Nursing* 41 (3): 306–313.
- Muthwii, K.M. 2002. *Language Policy and Practices in Education in Kenya and Uganda*. Nairobi: Phoenix.
- Muthwii, M.J. 2004. "Language of Instruction: A Qualitative Analysis of the Perceptions of Parents, Pupils and Teachers among the Kalenjin in Kenya." *Language Culture and Curriculum* 17 (1): 15–32. doi:10.1080/07908310408666679.
- NCDC (National Curriculum Development Centre). 2006. *Primary School Curriculum, P.1 -3*. Kampala: National Curriculum Development Centre.
- NCDC (National Curriculum Development Centre). 2008. *Pedagogy Handbook for Teaching in Local Language*. Kampala: National Curriculum Development Centre.
- Ngwaru, J.M., and K. Opoku-Amankwa. 2010. "Home and School Literacy Practices in Africa: Listening to Inner Voices." *Language and Education*. 24 (4): 295–307. doi:10.1080/09500781003678985.
- Obanya, P. 2010. *Bringing Back the Teacher to the African School*. Addis Ababa: UNESCO-IICBA. <http://www.iicba.unesco.org/sites/default/files/Fundamental%20series%201.pdf>
- Ogechi, N.O. 2003. "On Language Rights in Kenya." *Nordic Journal of African Studies* 12 (3): 277–295.

- Oketcho, P. 2014. *Language Policy and Education in Uganda: Featuring Indigenous Language Education in Primary Schools, Thematic Curriculum, Secondary Schools and Tertiary Institutions*. Kampala: Makerere University Institute of Languages.
- Ouane, A., ed. 2003. *Towards a Multilingual Culture of Education*, 1–14. Hamburg: UNESCO Institute for Education. www.unesco.org/education/uie.
- Ouane, A., and C. Glanz. 2010. *Why and How Africa Should Invest in African Languages and Multilingual Education: An Evidence-and Practice-based Policy Advocacy Brief*. Hamburg: UNESCO Institute for Lifelong Learning, Feldbrunnenstrasse 58, 20148. <http://docs.google.com/viewer>.
- Ouane, A., and C. Glanz. 2011. *Optimising Learning, Education and Publishing in Africa: The Language Factor – A Review and Analysis of Theory and Practice in Mother-tongue and Bilingual Education in Sub-Saharan Africa*. Hamburg: UNESCO Institute for Lifelong Learning, Feldbrunnenstrasse 58, 20148. ISBN-978-9-2820-1170-6
- Owu-Ewie, C. 2006. "The Language Policy of Education in Ghana: A Critical Look at the English-only Language Policy of Education." In *Selected Proceedings of the 35th Annual Conference on African Linguistics*, 76–85. Somerville, MA: Cascadilla Proceedings Project. doi:10.1.1.546.2160.
- Polkinghorne, D.E. 2005. "Language and Meaning: Data Collection in Qualitative Research." *Journal of Counselling Psychology* 52 (2): 137. doi:10.1037/0022-0167.52.2.137.
- Rateng, A.A. 1992. *A Guide to Practical Teaching*. Nairobi: Desktop Publishing Unit.
- Selenger, D. 1997. *Participatory Action Research and Social Change*. New York: Cornell University.
- Sentumbwe, G. n.d. *Implementation Strategy for Advocacy of Local Languages in Uganda* (Unpublished work). Kampala: NCDC.
- Stringer, E. T. 2008. *Action Research in Education*. 2nd ed. New Jersey: Pearson.
- Trudell, B. 2007. "Local Community Perspectives and Language of Education in Sub-Saharan African Communities." *International Journal of Educational Development* 27 (5): 552–563. doi:10.1016/j.ijedudev.2007.02.002.
- UNESCO. 2008. *Education for All: Global Monitoring Report. Summary. Education for All by 2015. Will We Make It?*. Paris: United Nations Educational, Scientific and Cultural Organization. <http://unesdoc.unesco.org/images/0015/001548/154820e.pdf>.
- Vaiyavutjamai, P., and M.A. Clements. 2006. "Effects of Classroom Instruction on Students' Understanding of Quadratic Equations." *Mathematics Education Research Journal* 18 (1): 47–77. doi:10.1007/BF03217429.
- Wang, Q., and H. L. Woo. 2007. "Systematic Planning for ICT Integration in Topic Learning." *Educational Technology & Society* 10 (1): 148–156.