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Articles

Deaf education in Zambia: Lessons from the 2013 revised curriculum

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Abstract
This paper presents findings of a study of experiences of Education Standards' Officers (ESOs) and teachers for learners with deafness based on the 2013 revised curriculum implementation in Zambia. The study adopted a qualitative paradigm to study ESOs and teachers' experiences in implementing the 2013 revised curriculum. Twelve (12) ESOs and Twelve (12) teachers for learners with deafness were involved in the study. In depth face to face and telephone interviews were conducted. The findings revealed that ESOs and teachers for learners with deafness had varied experiences. For instance, while the curriculum was appreciated as a conduit for widening employment opportunities for learners with deafness, its implementation was characterised with various challenges such as limited sign language vocabulary and lack of adapted teaching and learning materials. The study concluded that the challenges of lack of adapted materials and limited sign language vocabulary, as well as teacher incompetency in sign language had serious effects on the implementation of the curriculum for learners with deafness in Zambia. The study recommends the development of sign language vocabulary to meet the changing demands of modern education and provide access to quality curriculum implementation for learners with deafness.

Keywords: Curriculum. Deafness. Implementation. Sign language.

Introduction
Among the most contentious issues of debate in contemporary education is curriculum. A sound curriculum is a reflection of the practices, values and beliefs of any nation. It reflects the national goals, aims and objectives of an education system. In 2013, Zambia revised the education curriculum. The introduction of the 2013 curriculum framework provided hope especially for learners with special education needs. The old curriculum was revised mainly because it placed more emphasis on theoretical content than on skills (Ministry of Education, Science, Vocational Training and Early Education-(MESVTEE), 2013; Tuchili & Kalirani, 2014). The 2013 revised curriculum introduced early childhood education, instruction through a familiar local language at Grades 1-4, a two-career pathway system of academic and vocational subjects and an integrated subject arrangement (MESVTEE, 2013; Tuchili & Kalirani, 2014). With particular reference to learners with deafness, the revised curriculum introudced sign langauge as a subject to promote the literacy learning at primary school level. Further, the revised curriculum recognises that student teachers in teacher training institutions shoud be exposed to adequate knowledge and skills in Sign Language (MESVTEE, 2013).

In Zambia, there is no specific curriculum for learners with special education needs per se. All learners regardless of their abilities learn from the same curriculum, with a responsibility placed on specialist teachers to use their skills to tailor what they teach to meet the learning needs and abilities of learners with varying special needs (Ministry of Education-MoE, 2000). However, there has not been any critical benefit analysis of the revised curriculum to learners, especially, with deafness. What is clearly captured in the 2013 curriculum is the introduction of sign language as a subject at primary school level and as a compulsory course at teacher training level.

Statement of the problem

Since the introduction of the 2013 revised curriculum, it is not known how teachers teaching learners with deafness are experiencing the implementation process. Teachers'' experiences are crucial in determining the effectiveness of the curriculum implementation process. What seems to be clear is that schools and teachers teaching learners with deafness do not have access to assistive devices and adaptive technologies to help effectively implement the curriculum but several experiences that involve pedagogy remain unknown.

Purpose and significance of the study

The purpose of this study was to derive lessons from the experiences of ESOs and teachers for learners with deafness in the implementation process of the revised curriculum to learners with deafness in Zambia. It was hoped that the findings of this study may help stakeholders to identify gaps within the revised curriculum and refine the approaches to effective implementation.

Objectives

The study was guided by the following objectives:

1. To establish teachers' experiences in implementing the revised curriculum to learners with deafness.
2. To establish ESOs'' experiences in implementing the revised curriculum to learners with deafness.
3. To identify barriers to the effective implementation of the 2013 revised curriculum to learners with deafness.

Research questions

The study was guided by the following research questions:

1. What are the experiences of teachers for learners with deafness in implementing the revised curriculum?
2. What are the ESOs'' experiences in implementing the revised curriculum to learners with deafness in Zambia?
3. What are the barriers to the effective implementation of the revised curriculum to learners with deafness in Zambia?

Theoretical background of the study

This study was informed by the Deliberative Curriculum Theory by Kridel (. Kridel (2010) says;

Curriculum development has a component that deals with issues of implementation and deliberation. Good implementation requires the main agents of the curriculum to be in general agreement with the normative tasks at hand and to have resources, time and the insight to complete their work while also understanding that their work is rooted in an ongoing evaluative effort to improve the school experience. (p.204)

Thus effective curriculum implementation must be heavily supported through provision of necessary resources and expertise. In the case of deaf education, specialised materials and teacher competence become critical to the implementation of the curriculum. Teacher competence becomes one of the most critical aspects for effective curriculum implementation because they are the ones directly involved in interpreting the curriculum to learners, parents and the wider community. It is therefore expected that the teacher is at the helm of understanding the content and skills, as well as how best the curriculum can be implemented. In school curriculum reform, Tyler (2013) notes:

unless the objectives are clearly understood by each teacher, unless he is familiar with the kinds of learning experiences that can be used to attain these objectives, and unless he is able to guide the activities of students so that they will get these experiences, the education program will not be an effective instrument for promoting the aims of the school. Hence every teacher needs to participate in curriculum planning at least to the extent of gaining an adequate understanding of these ends and means. (p.126)

In this study, teachers' and ESOs' experiences are critical in understanding how the curriculum is being implemented.

Methodology

This study was qualitative. It targeted Education Standards Officers (ESOs) for special education and teachers for learners with deafness. Twelve (12) ESOs and twelve (12) teachers were interviewed. ESOs were purposively targeted because they have a responsibility in the Zambian education system to oversee curriculum implementation in special education. ESOs supervise, among many things, teachers'' ability to implement the curriculum, the resources available for curriculum implementation and the school environments'' capacity to enhance effective curriculum implementation. Teachers for learners with deafness were targeted because they are the real implementers and interpreters of the curriculum in the classroom situation. Their actual experiences were considered cardinal for this study. All participants were selected from Lusaka, North Western, Western and Southern provinces. Face to face and telephone semi structured interviews were used to collect data. All data was recorded on Sony Mp3 audio recorder. Nvivo Qualitative Data Analysis tool was used to sort and categorise the data into themes that emerged from verbatim responses of the participants. For ethical reasons, the districts, schools and personal identities of the participants have been withheld.

Findings of the Study

From the interviews conducted, three key themes emerged:

1. Teachers' experiences in implementing the revised curriculum to learners with deafness;
2. ESOs'' experiences in implementing the revised curriculum to learners with deafness; and,
3. Barriers to effective curriculum implementation for learners with deafness.

Findings

Research Question 1: **Teachers' experiences in implementing the revised curriculum to learners with deafness**

The implementation of the revised curriculum to learners with deafness was generally described as challenging. The findings reveal that the implementation process was marred with lack of key materials such as the teachers' guides and in some cases the syllabus. One of the teachers laments;

I have the syllabus but we don't have the teacher's guide and the learner's book. But from the content in the syllabus we are to make a lesson you can even make a….we are able to plan. (Teacher 2, Female, 19th January 2017, Lusaka province)

Learners'' books were also not ready at the time the revised curriculum started to be implemented. One of the teachers said,

*It becomes difficult to plan, although we are trying because we were only given the syllabus. They are still developing learners'' books. So now the revised curriculum has come up with new concepts which are difficult to use sign language" (*Teacher 3, Female, 19th January 2017, Lusaka province)

The lack of teacher's guides and learner's books, and sole reliance on the syllabuses was echoed by teacher 5, 7, 8, 10, 11 and teacher 12. For instance, one of the teachers reported as follows:

The books for the deaf are not yet adapted. What we have are those for learners who are not deaf. Those books are used by normal students also. (Male, 18th January 2017, Lusaka province)

Another teacher said,

The biggest problem is that the government printed books to suit the mainstream. For the hearing impaired, there was no provision such as books with some sign language (Teacher 7, deaf: 31st January 2017, Southern Province).

From the findings, it is clear that the revised curriculum was being implemented without key materials such as learner's' books and teacher's' handbooks. The books that were available were meant for the ordinary learners without disabilities and teachers were required to use their knowledge and skills to adapt the learning tasks to learners with deafness.

Research Question 2: ESOs' experiences of implementing the revised curriculum to learners with deafness

In describing the experiences of the revised curriculum, ESOs first described the revised curriculum as beneficial to learners with deafness. Findings suggest that the curriculum was appreciated as beneficial to learners with deafness. One of the benefits identified is the introduction of sign language as a subject. One participant narrated;

One of the benefits is that for the first time now, we have introduced new subjects for the learners; for example the hearing impaired, we now have sign language being taught as a subject, to the learners who are hearing impaired, it is supposed to be time tabled which never used to happen in the past, now the advantage is that, in Grade 7, Grade 9 and 12 we expect our learners in future to start writing exams in sign language, the way the hearing learners write, at Grade 7 they write Nyanja, they write Luvale, they write Lunda, you know in the past when, the hearing children were writing those subjects, the hearing impaired were not participating they could not write because that was not their language, but now we have introduced sign language so that they can also write it as a language (ESO 3, Male, 16th January 2017).

From this participant, the revised curriculum brings the benefit of assessing learners with deafness in sign language. The participant seems to notice the disadvantage that previous assessment by the Examination Council of Zambia (ECZ) had on learners with deafness. The participant seems to observe that since examinations are not in sign language, learners with deafness were disadvantaged. Further, the participant argues that sign language is a familiar language that can help learners with deafness to learn and be assessed effectively and fairly. In discussing the benefit of the revised curriculum on performance, ESO 3 further explains below:

Most of our leaners with hearing impairments have been doing very poorly in information subject, but what we realised is they were doing very well in skills subjects, or practical subjects like art, woodwork, metal work, home economics, those are the courses the learners were doing very well but, it was a very big problem for them to do especially the sciences (ESO 3, Male, 16th January, 2017).

In line with the same thought, another ESO said;

It was very necessary because most of our students in the past would not go beyond Grade 7, you find most of them will just end at Grade 7 level, and after that they are in the village, so with this curriculum, it will be equipping them with skills. (ESO 12, Female, 14th July 2017).

In the above verbatim, the participant observes that learners with deafness have been performing poorly in information subjects but the introduction of vocational subjects in the revised curriculum provides an opportunity for learners with deafness to learn vocational skills for self and formal employment through the vocational pathway. This view came up from other ESOs who described the curriculum as a step in the right direction especially for learners with deafness. One ESO said;

*The revision of the curriculum actually was in good faith because it was empowering learners with life skills which is alongside the 2030 vision because it is required of every Zambian by then to be self-sustainable because Zambia is going to become a middle income country. By revising the curriculum it entails that teachers now would exclusively look at the needs of each and every learner because it would require that teachers to actually screen, assess, and then there after they will identify specific measures and programmes that would be given to the children so that in the end there are going to acquire the necessary skills, value and that would enable them have survival skills. (*ESO 10, Male on Thursday 13th July 2017)

Another ESO reiterated the strengths of the revised curriculum for learners with deafness as follows:

Ok like in computer studies we don't have much of a problem because we have the computers in most of our schools and our learners with deafness easily get attracted to using computers. Our learners are learning something although we have teacher who have done special education but they are not trained to teach computers to deaf learners. (ESO 1, Male, 13th December 2016)

Participants seemed to be happy with the introduction of computers as a subject for all learners but more specifically for learners with deafness. For instance, one participant said;

The introduction of computers under technology is good. I think I have seen some change, our children have acquired some skills on how to use the computer and they are becoming literate. I think it's a step ahead in these areas because we have already started seeing the benefits on our children with deafness. (ESO 12, Female, 14th July 2017).

On the whole, ESOs described the revised the curriculum as beneficial to learners with deafness. They emphasised the introduction of vocational subjects as a positive step towards widening the opportunities for formal and informal jobs for learners with deafness. For instance, ESOs 2, 6, 7, and 11 provided detail of the nature of vocational skills that the revised curriculum would benefit learners with deafness as carpentry, computers, bricklaying, cookery and many other skills in agriculture.

Research Question 3: Barriers to effective curriculum implementation for learners with deafness

Although sound on paper, findings reveal that the implementation of the curriculum was characterised with many barriers that hindered smooth implementation to learners with deafness. Both teachers and ESOs reported similar barriers to curriculum implementation for learners with deafness in Zambia. For instance, one of the barriers that came out loudly was the lack of teaching and learning materials such as teachers and learners books. Computers in schools were also scarce and even if some schools had, they had no electricity. While the curriculum introduced computers as a subject, learners with deafness did not have access to computers in the most schools according to participants. One ESO said this;

The school just has three computers they are using for our learners at different intervals so at least the children are exposed than those that were there those years. (ESO 12 Female, 14th July 2017)

Another ESO reported;

When it comes to other teaching materials we are hit actually, only schools with money have computers, I think they are able to offer computers as a subject because the government I think has not gone so much deep in providing computers for the learners. So the issue of computer studies they is still need to run. (ESO 8, Male, 10th July 2017).

Learner's' books based on the revised curriculum were not read at the time when the curriculum had already started to be implemented.

What has been happening is that the ministry produced a lot of books, in those areas at various levels of the education system, at Grade1, 5, 8, and Grade 10. So the production of books was going according to that the following year, they will produce the books for the next Grade whilst learners are in Grade 1, they will produce the books for Grade 2, then whilst these are in Grade 5 they will produce for Grade 6 like that. Unfortunately whilst that was being done for the hearing children, our children with special education needs the books were not ready up till today. That is the biggest cry our teachers have been giving us because according to them they needed these books just like the ordinary learners. (ESO 3, Male 16th January 2017).

The narration above agrees with the challenges that teachers used to describe their experiences of the revised curriculum in research question 1. From the participant, there seems to be more priority paid towards developing books for learners without disabilities in the mainstream school system than for learners with disabilities. This seems to be perceived as a negative attitude towards implementing the curriculum to learners with special education needs.

The other barrier to effective implementation of the revised curriculum was the newly introduced familiar language of instruction from grades 1-4. It appears this emerged as a challenge to some teachers. One of the teachers said;

In the first place, personally I am not very fluent in Tonga, secondly, the children that we are mentoring in English, Tonga is the language of instruction here, so we are told to say, whenever you use English, you should use local language that they speak, for us to help them get what we are teaching, for me, I am not Tonga so I use my friend to interpret what I teach in Tonga. (Teacher 9: Male, 2nd February, 2017).

Another teacher said,

Sir the revised curriculum has come with its own challenges because how can you call the mouse of a computer in the local language? There are many parts of the computer and since we are told to introduce computer basics to learners early, what words can we use? At one workshop we were told that we use the word 'mbeba', for the mouse but for learners with deafness, that is something else. Teacher 12: Male, 2nd February 2017).

The sentiments of familiar language of instructions were also echoed by one of the ESOs who said, the familiar language of instruction had a negative impact on the way teachers operated within classroom situation. She said;

The first Grade 7 wrote exams based on the revised curriculum. We had four pupils that sat for that exam and they passed though there is something I identified, for the hearing impaired, it's challenging to teach them in the familiar language. In terms of the signs I think, teachers struggle because when you look at the exam and the way it comes I think our children are just prepared for the exam, not that they learn and their pass performance in the exam cannot be compared to those without deafness. I know there will never be a communal sign language in terms of the local. (ESO 12, Female, 14th July, 2017).

Another participant explained that the policy affected deaf teachers who were posted in an area where the local language of instruction was not familiar to them.

We have four deaf teachers teaching learners who are deaf in this school, two ladies and two gentlemen but they don't know the local language in this area. So they have to depend on local teachers to translate some terms. (ESO 4, Female, 20th January 2017).

One of the main barriers that emerged was that sign language vocabulary was inadequate to be used as a language of instruction for learners with deafness. This challenge affected pedagogy. Some teachers explained the complexities of signing certain terms in some subjects. A Geography teacher recounted:

Like when teaching concepts that involve abstract thinking, it's a challenge because for a hearing impaired child to build an idea from abstract, it becomes very difficult. So to explain an abstract concept to the learner its challenging, he may get it in the different way. That's why these learners only perform well when it comes to practical subjects. Practical subjects, they are very excellent. (Teacher 11, Male, 8th February, Southern province).

The teacher explained that teaching learners with hearing impairment using concrete objects helps them to assimilate and understand the concepts very well. However, the teacher explained that teaching of abstract concepts is very challenging. For instance, certain concepts in Geography such as 'changes in states, changes in states of matter' are difficult to teach learners with deafness.

Some of them, more especially when you dealing with the volcanoes, the molten, when you are talking about the molten those aqueous states of rocks, but when for example you find the term aqueous states, how do you find a sign for that? (Teacher 11, Male, 8th February, Southern province).

The teacher further narrates the difficult encountered in trying to explain a lesson involving the concept of volcanoes:

So when you try to simplify the concept of the change in the states of matter saying that 'the rock turned into porridge'; So that one has no sign apart from writing on the board, again if you write on the board, you have to break it. This is the rock that has become porridge when there is too much heat. Quite alright, you may teach them this it will change from one state to another because of this and that but again give them an exercise based on the same thing, they will write different (Teacher 11, male, 8th February, Southern province).

From the above extract, we learn that if the teacher uses different terms to explain the concept, those are the terms the learners will pick but when an examination

question is given, it is not expected that the learners explain the concept as "porridge".

The challenge of terminology in sign language was also experienced by teachers of mathematics. Some participants reported that words such as circumference, radius, diameter and factorise in Mathematics were difficult to sign. One of the teachers said;

Like circumference it's a new word, I have to consult from other teachers but if I fail I use finger spelling, 'spell circumference' but they do not understand then I leave it like that what can I do? Because you will never find the word which is signed 'circumference', we will never. (Teacher 10, Male, 18th January 2017, Lusaka).

The teacher further narrates;

Indeed there are certain concepts found in the revised curriculum books that are too difficult for us to sign. For example in maths, concepts like 'circumference', 'radius' and 'diameter', 'factorise' etc are difficult to sign. Science concepts such as 'antibiotic', 'drugs' and 'impetigo' a disease have no signs. We just struggle to arrive at how these concepts can be signed so we just involve ourselves in breaking these terms into smaller teachable units or telling the meaning only which is not helpful to our pupils. (Teacher 10, Male, 18th January 2017, Lusaka).

One other teacher with eighteen years teaching experience recounts the challenges of teaching integrated science to learners who are deaf. He says:

It is difficult to find a suitable sign for the word, 'bone marrow'. In such cases, the teacher now has to improvise. The teacher has to bring concrete objects and show the bone marrow to the learners. Another difficult word to sign for example is 'amphibian'. This word has no specific sign. (Teacher 6, Deaf teacher: Male, 6th February 2017, Southern province).

According to the teacher, it is very important that concrete objects are used when teaching learners with deafness.

In the above verbatim, the participant reported that teachers struggled with sign language and that affected the pass rate in mathematics.

Some ESOs also observed that since sign language was a local language for learners with deafness, lessons needed to be translated from English to Zambian Sign Language. But the participant observed that direct translation of terms from English to Zambian Sign Language was difficult and terms differed in meaning from one local language to another. She said;

Sign language has inadequate vocabulary. It is inadequate because there are certain signs that mean differently in different places and you know we have different learners from different parts of the country. So teachers have to struggle to explain some concepts because certain signs might mean something else to a learner from another area. (ESO 12 Female, 14th May, 2017).

ESO 4 explained the complexity of using sign language as a familiar language of instruction for learners with deafness as follows;

Especially for the hearing impaired they are using the same books, because like at lower level they have to use the familiar language I would say in that area, so in this

case it has to be in Luvale but now you will discover that there are no books specifically in Luvale for the hearing impaired which have sign language so now they have to use the same books and now they start translating meaning when they are in Luvale because the hearing impaired usually they do not learn the Zambian language. So, it would mean they have to rely on the other teachers to help them or interpret and then write the words in English and that's when they prepare their lesson plans, so that has quite been a challenge. (ESO 4, Female, 20th January 2017).

Although the example given by the participant relates to the familiar language of instruction, learners with deafness are naturally supposed to be taught in sign language as their mother tongue. However, it is acknowledged from the verbatim that there were no books developed in different Zambian Sign Languages to enable teachers use appropriate signs to teach learners with deafness.

From the findings, it appears that although the revised curriculum is appreciated by ESOs and teachers for learners with deafness, as key stakeholders, its implementation is characterised by various challenges. These included lack of teaching and learning materials adapted for learners with deafness and the problem of limited sign language vocabulary which affected teacher effectiveness in delivery and implementation of the revised curriculum.

Discussion of findings
From the findings, participants seemed to appreciate the revised 2013 curriculum. They reported the potential benefits of the curriculum to learners with deafness. First, participants observed that the revised curriculum brings in the vocational pathway that broadens career opportunities for learners with disabilities in general and those with deafness in particular. Second, participants noted that learners with deafness were not performing well in academic oriented subjects; hence the two career pathway provides an alternative for them.

However, this should not mean that the vocational pathway has come specifically for learners with deafness. If this were the thinking, the approach would be too restrictive to career options for learners with deafness. Such a perception would be contrary to the inclusive education agenda because the connotation is that learners with deafness cannot manage content but skills oriented curriculum. The aim of the two career pathway curriculum should not be used to perpetuate negative attitudes towards the disabled by shelving them into careers that are lowly perceived. There is need to properly assess factors that should determine a learner's career pathway.

The lack of adapted and other teaching and learning materials
The challenges of lack of adapted materials such as teachers' guides and learners' books seem to be the most obvious challenges affecting the mainstream school system as well. The revised curriculum 2013, as at the time of time study in 2016/2017 was being implemented without books adapted in sign language as the familiar language for the deaf. Further, this study established that schools did not have adequate computers that learners with deafness could use to earn the newly

introduced computer subject. In schools that reported having some computers, teachers did not have adequate knowledge and skills to teach computers because they were not trained. Similarly, Mambwe (2016) also found that the computer curriculum was not implemented in Mwansabombwe. Even then, the computer curriculum was introduced before teachers were not trained to teach computers, findings that Mulenga (2016) reported. In this paper, we would like to argue that computers and teachers' knowledge of using computers are critical to the provision of concrete and effective teaching and learning for learners with deafness. Thus, beyond computers as a subject, computers can be successfully used to teach deaf learners because they provide various modes of learning. By using a computer, deaf learners can access videos or pictures on different topics that can help them understand what a teacher may be teaching. Computers can help expose deaf learners to various career options in other disciplines such as Medicine, Engineering, and Computer Programming. With effective implementation of the 2013 curriculum, deaf learners can reach out for other advanced careers. A study by Abuzinadah, Malibari and Krause (2017) showed that deaf students were eager to learn computer science if provided with the needed tools. Computers act as compensatory tools for students with deficits in hearing, vision and other areas of personal functioning. We argue therefore that if there is a cost implication to provide computers on an equal ratio to learners in Zambia, it would be prudent to make sure that schools for learners with deafness should have computers and skilled teachers to teacher the subject.

Sign language vocabulary related issues

On sign language vocabulary being inadequate for delivery of content in various subjects such as Science, Mathematics, Geography and other subjects as this study established, this challenge has been in research literature for some time now. For instance, Muzata (2010) found that teachers had difficulties signing certain terms when teaching HIV/AIDS prevention to learners with deafness. Further, Muzata (2017) found that special education teachers faced numerous difficulties in implementing the revised curriculum. Professional associations such as the Special Education Association of Zambia (SEAZ), have a responsibility to spearhead the development of sign language vocabulary by consistently calling on the Ministry of General Education (MoGE) and the Curriculum Development Centre (CDC) of Zambia to facilitate the process.

Teacher competence in sign language and learners' sign language abilities

It is worth noting that in a class of learners with deafness, there are different types of deafness. There are learners who have never been exposed to speech (pre-linguistic deafness) and those that may have learnt speech and later became deaf (post linguistic deafness). Some learners have mild and moderate hearing levels and may not solely depend on sign language to learn and interact with the teachers and peers. This means teachers need to be exposed to various strategies of communicating with the different categories of learners with deafness. Teachers need to be equipped with various strategies that help deaf learners to benefit from classroom interaction. For instance, lip reading as a strategy may not be beneficial when teaching deaf learners who have never learnt to use speech. Reliance on lip

reading even for learners with partial hearing loss cannot be encouraged solely because researchers have discovered that lip reading may also be confusing and it depends more on the level of intelligibility of the lip reader (Ortiz, 2008). Ortiz (2008) observed confusions in lip reading emanating from phonemes but concluded that proficient deaf readers were more intelligent and their oral speech was more comprehensible than others. Thus, the need for highly competent teachers to teach learners with deafness is a priority in this regard. . A competent teacher should be able to decide when to apply certain strategies and when not to. In discussing deaf culture, Goss (2003), discovered that not all deaf learners that were totally deaf developed unique and oftentimes compensatory methods of communication. Teachers for learners with deafness need to enmesh themselves into learning deaf culture to be able develop intrinsic cultural communicative strategies to be able to teach effectively. Thus, a specialised teacher in deaf education must have the intrinsic feeling of being deaf to be able to appreciate the teaching of the deaf.

However, several studies in Zambia indicate that teachers teaching learners with deafness are ill-trained. Mulonda (2013) established that most teachers of learners with deafness do not undergo comprehensive training which is needed to prepare them to adequately teach learners with deafness. According to Mulonda (2013), the lack of comprehensive training is attributed to training institutions that take a medical model which does not consider sign language as a fully-fledged language. The incompetence of teachers teaching the deaf in Zambia has been echoed by Muzata (2017), MoE (2014), and Ndhlovu (2008). In all these studies, Zambian teachers teaching sign language are said to be incompetent. The pedagogy related difficulties experienced and reported by teachers in this study may not be solely blamed on inadequacy of sign language vocabulary but also teacher incompetency in sign language in many cases. Teacher incompetency resulting from language and vocabulary deficiencies affects teaching to a greater extent. Muzata (2018) argues that deficit in language fluency affects lesson delivery. There is however hope at the end of the tunnel that Zambia will start producing competent teachers who can implement the curriculum to learners with deafness following the 2013 curriculum framework. The 2013 curriculum framework directs teacher training institutions to train all students in sign language while the University of Zambia (UNZA) and the Zambia Institute of Special Education (ZAMISE) train teachers to specialise in different categories such as intellectual disabilities, visual impairments, physical disabilities and hearing impairments. However, such an approach to teacher education appears to be against the principle of inclusive education which aims at training a teacher who would teach learners with different special education needs. The focus of these teacher institutions should be on preparing the students for special education competently by restructuring their training programmes towards competence based education in order to provide practical experience to trainee teachers in the different categories of disability. Muzata (2018) observed that special education student teachers on teaching practice did not exhibit adequate and expected skills for teaching learners with different disabilities including deafness. According to Muzata (2018), adoption of the practice based model would address the shortcoming.

The problem of sign language does not only affect teachers. It affects learners as well. Some studies show that learners equally lack adequate sign language vocabulary for learning and interaction. MoE (2014) says deaf children's vocabulary is limited compared to their peers while Ndhlovu (2018), in a study on teaching-learning experiences of Grades 8 and 9 learners with deafness, reports that deaf children did not exhibit competence in sign language during lessons. Further, literature indicates that learners, especially with pre-lingual deafness, experience language delays. MoE (2014) urges teachers for learners with deafness to prepare for effective teaching of such learners by preparing material, modifying or simplifying written texts and adapting methods that would work with each child. While what MoE (2014) advises should be taken seriously, the onus is on the MoGE to provide support to teachers in terms of upgrading pedagogical skills for teaching the deaf and providing adequate and specialised materials for teaching and learning.

The problem of sign language difficulties among children can be overcome by early identification and enrollment of such children into early childhood school so that they are exposed to sign language early. This still hinges on whether early childhood schools have qualified teachers and developed curriculum to enable smooth transition of early childhood learners into primary school. Further, parents of children with deafness need to be introduced to sign language early in their own homes. This calls for identification of families with deaf children and providing them with sign language lessons so that they are able to interact with their children and help in homework and other academic tasks. This means, the effective implementation of the 2013 curriculum depends on equipping teachers, learners with deafness and parents of such children with adequate sign language lessons. Such support will help improve the quality of teaching and learning for learners with deafness.

The familiar language of instruction
The 2013 curriculum introduced the familiar language of instruction from Grades 1-4 to enable learners learn easily in a language familiar to them or in their language of play. However, the policy has its own challenges and implications for deaf education in Zambia. At the time of the study, learners' and teachers' handbooks were not adapted or developed in familiar languages. This means teachers are using initiative to adapt the teaching materials. With the differences in local languages orthography, it is highly possible that teachers are not communicating the content and skills well in a sign language that can be universally understood by learners. This was revealed by ESOs and teacher participants in this study. The familiar language policy poses some challenges as reported in the findings. Certainly, the most familiar language for the learner with deafness is sign language. However, the child with inborn deafness, potential is supposed to be the mother tongue speech, that is, English, French, Portuguese, Luvale, Bemba, among others. But because of circumstances that inhibit the development of mother tongue speech, children with deafness have to be exposed to sign language early. This is because sign language becomes a new or additional language in a family that has never had a child with deafness. The implication is that the family needs to know sign language to be able to communicate with the child early in life and aid the child's development. Usually, parents do not discover early whether their child is deaf or not hence the child delays to learn to

communicate. Because the child with deafness is faced with difficulties to communicate using speech, it would be ideal to introduce the child to sign language early enough so that sign language becomes the child's mother tongue. This is possible when early identification of deafness is done. At school level, the child's familiar language is expected to be the mother sign language but as things stand, the child should use the familiar language related to the familiar local language of instruction for a particular school where the child receives education. This seems to pose further challenges for realising the concept of inclusive education. As things stand, and from the participants' perspectives, it seems there is an understanding that there are different sign languages in Zambia. For instance; Luvale Sign Language, Lunda Sign Language, Bemba Sign Language, Tonga Sign Language and so on and so forth. This is logical because there exist American Sign Language, British sign language, French sign language, Spanish sign language and so on. With respect to the revised curriculum, mixing learners with deafness from different sign language backgrounds is likely to confuse communication because each of the languages has its own signs or sign language orthography. Zambia has more than 73 languages and dialects. This means, there should be more than 73 sign languages. The implication is that there should be books in each Zambian sign language.

Further, teachers need to be competent in any particular Zambian sign language they would teach to a select group of learners with deafness. If difficulties are encountered in developing books for each Zambian sign language, the best suggestion would be that a standard Zambian sign language should be adopted or developed. This, however, has implications on the originality of each indigenous Zambian sign language and its preservation.

From the findings, it seems the familiar language policy in its current face calls for review to see whether it is inclusive to the teaching and learning of learners with deafness. A myriad of questions need to be answered. For instance, "*what is the most familiar language for a child with deafness in Zambia?*" The most impulsive answer to such a question would be; "*sign language*". But which sign language? From the findings of this study, the familiar language for a deaf child should be the local sign language. For instance, this is to think that there should Luvale Sign Language, Lunda Sign Language, Bemba Sign Language, Tonga Sign Language, Lozi Sign Language and Kaonde Sign Language. These are just the seven (7) main local languages recognised as official familiar languages of instruction in Zambia. Logically, it fits and equates to American Sign Language, British sign language, Spanish language and other sign languages around the world. However, some reflectional questions need to be answered. First, how realistic and applicable is it for Zambia? And second, have we developed the various local sign languages or do we have what may be called a Standard Zambian Sign Language? Even if a standard Zambian sign language were to exist, how standard would it be considering the highly multilingual nature of the country which has more than 73 languages and dialects? As a formerly colonised state, Zambia adopted English as a universal language for official use and instruction in education. But teachers for the deaf seem to use American Sign Language for un-researched reasons.

The difficulties teachers face to teach deaf learners can be further explained through an illustration below explaining the trail of challenges beginning from teacher training.
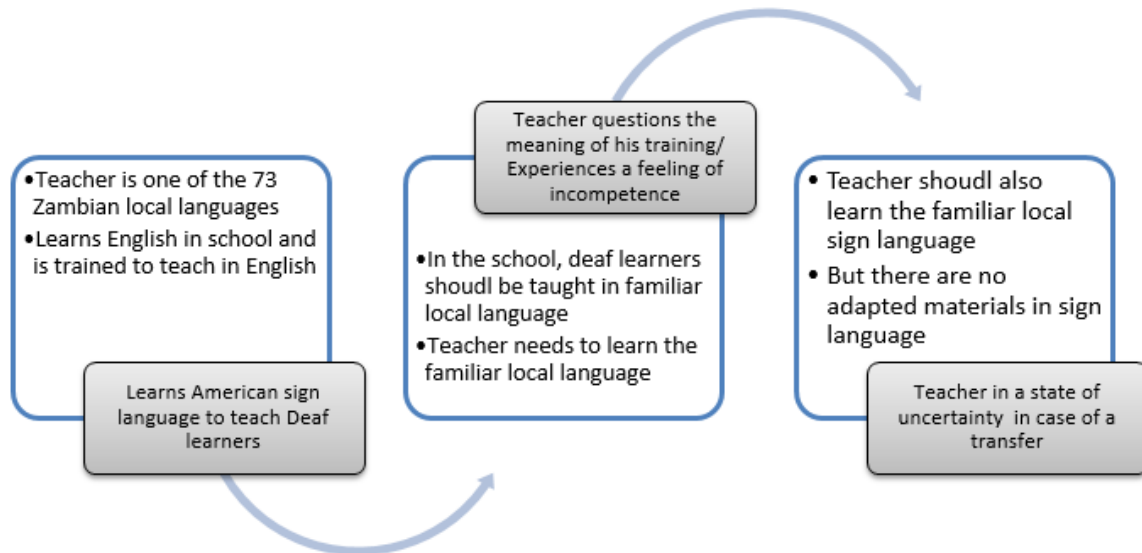

- Teacher is one of the 73 Zambian local languages
- Learns English in school and is trained to teach in English

Learns American sign language to teach Deaf learners

Teacher questions the meaning of his training/ Experiences a feeling of incompetence

- In the school, deaf learners shoudl be taught in familiar local language
- Teacher needs to learn the familiar local language

- Teacher shoudl also learn the familiar local sign language
- But there are no adapted materials in sign language

Teacher in a state of uncertainty in case of a transfer

Figure 1: Illustrating of challenges of familiar language of instruction for deaf education in Zambia.

Figure 1 illustrates the extent to which policy and practice find themselves at variance. From figure 1, the teacher is not a reflection of the curriculum he or she is expected to implement. The teacher is expected to implement the curriculum in a language he or she is not prepared to implement it. As a result, the teacher is said to be incompetent. But overly, the learner with deafness receives poor quality education delivery whose source relates more to a policy he or she was not part of making.

Conclusion and recommendations
The findings of this study reveal that there were varied experiences by ESOs and teachers for learners with deafness in the implementation of the 2013 revised curriculum in Zambia. While the curriculum has been appreciated as broadening employment opportunities in the formal and informal sectors by the introduction of the vocational career path way, the implementation is beset with challenges of lack of adapted materials in sign language, inadequate sign language vocabulary and teachers' incompetence in sign language. The familiar language of instruction compounds the already existing challenges related to sign language vocabulary further complicating effective delivery of the curriculum to learners with deafness at lower primary school level. The 2013 curriculum, as sound as it appears, has a number of implications for deaf education in Zambia.

Lessons should be drawn from the 2013 curriculum implementation that it does not help to start implementing a curriculum before development of teaching and learning materials related to the education of learners with deafness. Such practices work

against the principles of whole schooling, denying a section of learners their right to quality education. It is such practices that continue to perpetuate exclusion instead of promoting inclusion. Learners with deafness do not feel the benefits of a revised curriculum as they are technically denied to learn certain subjects. In view of the findings, it is would be prudent to address the critical areas affecting the implementation of the curriculum to learners with deafness in Zambia. For whole schooling to be realistic for learners with deafness in Zambia, there is a serious and urgent need for the MoGE through CDC to facilitate the development of sign language vocabulary and materials. The collaboration towards developing sign language vocabulary can be hastened when the MoGE works in collaboration with associations for special education and relevant bodies in deaf education to evolve standard Zambian sign language vocabulary for subjects such as Science, Mathematics and Geography. Deaf learners need to get to study for careers in the science and humanities in order for them to be scientists as well. The Special Education Association of Zambia (SEAZ) and other disability related organisations should play an active role in advocating for effective implementation of the curriculum.

References

Abuzinadah, N.E., Malibari, A. A. & Krause, P. (2017). Towards empowering hearing impaired students' skills in computing and technology. *International Journal of Advanced Computer Science and Applications,* 8(1): 107-118.

Goss, B. (2003). Hearing from the deaf culture: *Intercultural communication studies XII-2 2003 Goss – Deaf Culture.* Mexico: New Mexico State University.

Kridel, C. (2010). *Encyclopaedia of curriculum studies.* London: Sage.

Mambwe, G. (2016).*Barriers to effective teaching of computer studies in selected government junior secondary schools of Mwansabombwe District in Luapula Province.* Unpublished master's dissertation. Lusaka, Zambia: University of Zambia.

MESVTEE. (2013). *The Zambia education curriculum framework*. Lusaka: CDC.

MoE. (1996). *Educating our future: national policy on education*. Lusaka: Education Publishing House.

MoE. (2014). *Principles & practice: teaching the deaf in schools; teachers' guide*. Lusaka: Missionary Oblates Printing Press.

MoE. 2000. *The basic school curriculum framework.* Lusaka: CDC.

MoGE. (2015). *An appeal to align teacher education curricular to the revised school curricular: Circular No TES/101/1/20*. December 22: Lusaka: MoGE.

Mulenga, C.L. (2016). *The implementation of computer studies curriculum in selected public primary schools in Ndola District of Zambia: Failure or success*. Unpublished master's dissertation. Lusaka, Zambia: University of Zambia.

Mulonda, M. (2013). *A situational analysis on the use of sign language in the education of the deaf in Zambia: A case of Magwero and St Joseph schools for the Deaf (Unpublished master's dissertation).University of Zambia, Lusaka.*

Muzata, K.K. (2013). *Teaching the hearing impaired HIV/AIDS: pedagogical experiences*. LAP Lambert Academic Publishing: Deutschland, Germany.

Muzata, K.K. (2017). *Curriculum implementation for learners with special education needs: the case of selected inclusive and special schools in Zambia.* Unpublished doctoral thesis. Pretoria, South Africa: University of South Africa. URI: http://hdl.handle.net/10500/24571.

Muzata, K.K. (2018). Teaching skills of special education students during teaching practice: the case of the University of Zambia pre-service special education students. *Multi-disciplinary Journal of Language and Social Sciences Education*, 1(1): 103-137.

Ndhlovu, D. (2008). Challenges faced by Pupils with Disabilities in Accessing Education in Selected Inclusive Schools in Chongwe District. *Zambia Journal of Education*, 2(2): 12-20.

Ndhlovu, R. (2018). *Teaching-Learning Integrated Science: Views of Teachers on Teaching Grade Eight and Nine Learners with Hearing Impairment in Zambia.* Unpublished master's dissertation. Lusaka, Zambia: University of Zambia, Lusaka.

Ortiz, I.R.R. (2008). Lip-reading in the pre-lingually deaf: what makes a skilled speech- reader? *The Spanish Journal of Psychology*, 11(2): 488-502.

Tuchili, A. M., & Kalirani, L.B.Y. (2014). Curriculum and assessment integration: the case of the new Zambian education curriculum. *A paper presented at AEAA Conference*: Livingstone: AEAA.

Tyler, W.R. (2013). *Basic principles of curriculum and instruction*. London: University of Chicago Press.

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