FACTORS INHIBITING THE IMPLEMENTATION OF A SOUTH AFRICAN SIGN LANGUAGE CURRICULUM IN SCHOOLS FOR DEAF LEARNERS

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Abstract

The Department of Basic Education introduced the South African Sign Language Curriculum Assessment Policy Statement in schools for deaf learners in 2015. In 2017, a study explored the experiences of sign language teachers when implementing the curriculum. The study used a phenomenological theory to interpret teachers' and teaching assistants' narratives and understand their experiences during the curriculum implementation. The study used purposive sampling, whereby participants were selected based on research location and their teaching of South African Sign Language as a home language subject in Grades 1 and 9 at the time of the study. The themes generated during the coding process framed the analysis of the statements by the 26 participants. The study showed that teachers and teaching assistants were amenable to the curriculum and understood the need to introduce the curriculum in schools for deaf learners. Although teachers and teaching assistants reported positive experiences of teaching sign language as a subject, they mentioned factors inhibiting teaching the language. In this paper, we report on the factors inhibiting the implementation of a South African Sign Language subject in schools for deaf learners in Gauteng.

Keywords: South African Sign Language, curriculum implementation, Deaf teaching assistants, factors.

INTRODUCTION

As language practitioners, we must know what inhibits the implementation of the Curriculum Assessment Policy Statement (CAPS) for South African Sign Language (SASL), which was introduced in schools for deaf learners in 2015 (Mabunda 2023, Nevenglosky, Cale & Aguilar 2019). Thus, in this article, I share factors inhibiting the SASL curriculum implementation process. I discuss two topics to illustrate the inhibiting factors in the SASL curriculum implementation, namely curriculum implementation and factors inhibiting SASL curriculum implementation.

Curriculum implementation entails implementing the officially prescribed courses of study, syllabi and subjects (Wanjiru, 2008; Chaudhary, 2015). Verster, Laubscher and Bosch (2023) state that this process of enacting the intended curriculum involves the teacher helping the learner acquire knowledge or experience (Magongwa, 2020). It is important to note that curriculum implementation cannot occur without both teachers and learners (Haque & David, 2022). Therefore, teachers and learners are the central role players in any curriculum implementation process. Implementation happens when the teacher helps the learners acquire the planned or intended knowledge, skills, ideas and attitudes aimed at enabling the learners to

function effectively in society (Wanjiru, 2008). Chaudhary (2015) asserts that curriculum implementation is the stage at which the curriculum, as an educational programme, is put into effect. Thus, actioning the curriculum requires an implementation agent (Chaudhary, 2015). Elliot and Norris (2012), Nevenglosky et al. (2019) and Mabunda (2023) identify the teacher as the agent in the curriculum implementation process. They argue that implementation is how the teacher selects and mixes the various aspects of knowledge contained in a curriculum document or syllabus.

Implementation transpires when the teacher-constructed syllabus, the teacher's personality, the teaching materials and the teaching environment interact with the learner. Elliot and Norris (2012) point out that curriculum implementation refers to how the teacher translates the planned or officially designed course of study into syllabi, schemes of work, and lessons for administering to students. During the teaching process, teachers should deal with factors that either enhance or inhibit the implementation of the curriculum (Magongwa, 2020). The inhibiting factors in implementing the SASL curriculum are either internal or external to the school.

This paper details the inhibiting factors the SASL teachers and Deaf teaching assistants encountered during the introduction of SASL as a Home Language subject in seven schools for deaf learners in Gauteng, South Africa. In 2015, the SASL curriculum was implemented officially for the first time in the history of Deaf Education in South Africa. Thus, the first-hand input from SASL teachers and Deaf teaching assistants about their experiences and perceptions of the implementation process was worthy of review. The impact of the SASL teachers' and Deaf teaching assistants' experiences on their pedagogical strategies opens the way for future studies.

METHODOLOGY

The study applied qualitative research methodology and used a case-study method to explore the experiences and perceptions of SASL teachers and Deaf teaching assistants on the implementation of the (then) new SASL curriculum for deaf learners in schools. The research study employed phenomenology, whereby 13 SASL teachers and 13 Deaf teaching assistants from seven schools for deaf learners participated and shared their experiences and perceptions of teaching SASL. Phenomenology was used to interpret the teachers' narratives in order to understand their experiences during the SASL curriculum implementation.

PARTICIPANTS

The research study used purposive sampling to select participants based on the research location and their teaching of the SASL subject in Grades 1 and 9 in the identified schools for deaf learners in Gauteng Province at the time of the research.

RESEARCH INSTRUMENTS

The research instruments used in the case-study to collect the narrative data were semi-structured in-depth interviews and questionnaires to collect the participants' biographical data. These data collection approaches were chosen for their feasibility. An interview schedule was used to encourage participants to generate multiple views of their experiences and perceptions on teaching SASL as a school subject. The researcher conducted the interviews using SASL and recorded them with a digital video camera. Thereafter, the qualitative data were transcribed

from SASL into English for data analysis and presentation. I collaborated with a professional SASL interpreter to transcribe data from SASL into written English.

ETHICAL ISSUES

Prior to commencing data collection, the researcher obtained an ethical clearance (Protocol # 2015ECE020D) from the University of the Witwatersrand, under which auspices the research occurred. The Gauteng Department of Education provided an approval letter for conducting the research study in provincial schools. The researcher also obtained written permission from the schools and participants. He assured the participants of their anonymity, confidentiality, voluntary involvement and the freedom to exercise their right to withdraw from the research study if they so choose.

RESULTS

The study performed thematic analysis to organise the interview transcripts manually. The themes generated during the coding process framed the analysis of the participants' statements. This research showed that SASL teachers and Deaf teaching assistants were receptive to the SASL subject curriculum and most understood the need for it in schools for deaf learners. They are positive about the SASL CAPS but point out the negative aspects of the SASL curriculum implementation. The participants reported positive experiences that facilitated the teaching of SASL as a school subject: the training they received from the Department of Basic Education and private training providers, the availability of resources, a good support structure, and a positive school environment.

Wanjiru (2008), Omondi (2014) and Chaudhary (2015) identify the school culture and environment, teachers, learners, resources, ideology, instruction, and assessment as factors influencing curriculum implementation. In this article, I outline and discuss inhibiting factors identified during the research, divided into internal and external factors. These factors have a constraining impact on SASL curriculum implementation. Internal factors emanate from within the school and are related to SASL teachers and their work. External factors reside outside the school; in short, they are related to the world beyond the school. The next section details the internal factors.

1. Internal factors inhibiting the successful implementation of the SASL curriculum
2.
The internal factors related to SASL teachers and their work in the classroom emerging from my research study are the following:

- Insufficient teacher training
- Lack of subject matter knowledge
- Insufficient time for teaching
- Insufficient learning and teaching support materials for SASL
- Insufficient support structure
- Poor management
- Unconducive environment

These factors are based on data gathered during the research. For clarity, I explain each factor briefly but not necessarily in the order of importance.

1.1 Insufficient training of SASL teachers

SASL teachers and Deaf teaching assistants attended some short training workshops on SASL CAPS before and after the introduction of SASL as a subject in schools for deaf learners. These workshops were organised and facilitated by the Department of Basic Education (DBE) in preparation for the introduction of the SASL curriculum. Eight of the 13 SASL teachers and four of the 13 Deaf teaching assistants stated that the training they had received from the DBE was inadequate for developing the kind of skills required for effective teaching of SASL. One of the participating teachers commented:

> *The training duration was too short. It was not enough in terms of time.* (Bheki[1])

Education research confirms the insufficiency of training as an inhibiting factor in the successful implementation of a curriculum. In the curriculum literature, Mabunda (2023) has documented that this kind of once-off training is insufficient for successful sign language pedagogy (Pirone et al., 2023). Ngwenya (2019) argues that teachers with limited training and professional backgrounds experience difficulties during the implementation of a new curriculum. According to Samuel (2016), research conducted in Kenyan schools indicated that insufficient training is a key factor in determining teachers' teaching impact. SASL teachers are "therefore, supposed to have undergone sufficient training" to implement the curriculum successfully (Samuel, 2016: 597). Harris and Bennet (2001) and Mabunda (2023) state that if teachers have an insufficient level of training, the quality of output will be greatly impaired. Insufficient practical training "adversely impacts on the quality of educational experiences of learners" (Samuel, 2016: 598). With the introduction of the SASL CAPS in 2015, teachers of deaf learners found themselves teaching SASL as a subject, although they had not been adequately and professionally trained to teach it:

> *The training was short, and the number of training sessions were insufficient.* (Adam)

Teachers require a continuous professional development program to empower them with the skills and knowledge to enact a curriculum (Haque & David, 2022).

1.2 Lack of subject matter knowledge

SASL teachers expressed that they had not received adequate training to develop the skills required for teaching SASL properly as a home language. In other words, they are not qualified to teach SASL as a first-language subject. Their lack of knowledge of content and methodology is a challenge for teachers who do not have the appropriate qualifications to teach SASL. The statements below affirm the teachers' doubts about their SASL teaching competency:

> *Nerve-wracking, because many deaf learners were never taught SASL subject and the linguistic aspects in their previous schools. They struggle with SASL grammatical aspects, and teachers are not confident how to help learners understand.* (Bheki)

> *More training to improve knowledge of SASL content is needed, so that we can be more confident and have full knowledge of how to implement SASL CAPS.* (Bianca)

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[1] All the names used for direct extracts from interviews are pseudonyms.

> *The training I went to wasn't that enough* (sic) *because they were just explaining the skills required to be met, such as observing and recording, but we were not shown how to actually do that. I need more training on content and methodology.* (Bheki)

These statements revealed that SASL teachers did not feel they had enough subject matter knowledge to implement the SASL curriculum successfully. SASL teachers expressed that they found it difficult to teach all the aspects of SASL per the policy document because part of the content is not related to their background experiences. According to the data collected during the research study, none of the SASL teachers interviewed had studied SASL methodology at the college or university level. Therefore, they lacked the confidence to teach the SASL subject effectively.

The finding that inadequate subject matter knowledge has a negative impact on teaching a subject is corroborated by research. Harris and Bennet (2001) and Badugela (2012) confirm that if teachers have inadequate subject knowledge, the quality of output is significantly impaired. A survey by Tlale (2019) and Mabunda (2023) also finds that the lack of content knowledge hampers the successful implementation of a curriculum. From the data collected, one can conclude that for SASL teachers and Deaf teaching assistants to implement the SASL first language curriculum successfully, they must be knowledgeable and competent in SASL.

Tlale (2019) states that alongside a lack of content knowledge, incompetency in SASL has proven to be the key factor hindering the effective teaching of SASL. Pirone et al. (2023) assert that sign language proficiency is the basis for sign language pedagogical content knowledge (PCK). The PCK for teaching SASL includes (1) the ability to understand and sign the language (i.e., proficiency); (2) a theoretical understanding of how that language works, that is, the rules of the language (SASL linguistics); and (3) pedagogical knowledge of how to teach the language systematically, meaning SASL teaching methods (pedagogy). The research study reported in this article shows that the SASL proficiency of teachers tasked with implementing SASL in Grades 1 and 9 ranges between One and Five on the Gallaudet Sign Language Proficiency Scale (Hall, 2022). I relied on the documentary proof (certificates) for passing a SASL test, and when the participant did not have a certificate, I asked for the level they had attained in SASL.

According to Sibanda (2015), sign language proficiency among teachers of deaf learners forms the basis of effective learning. Sibanda (2015) conducted a study seeking to establish the level of sign language competency among teachers of deaf children in ten primary schools in Zimbabwe. He found that teachers of deaf learners in Bulawayo lacked sign language proficiency: "What teachers mistook as sign language was mere finger spelling and some distorted signed systems" (Sibanda, 2015: 157). Ngobeni et al. (2020) report that 10% of teachers of the deaf are proficient in SASL. Musengi and Chireshe (2012) have observed that specialist teachers of the deaf cannot sign abstract concepts. Kiyaya and Moores (2009) have found that teachers of the deaf in sub-Saharan Africa cannot sign well enough to teach subject matter knowledge. Table 1 below shows the qualifications of the SASL teachers and Deaf teaching assistants.

Table 1: Formal qualifications of SASL teachers and Deaf teaching assistants: 2016–2017

Highest qualification	SASL teachers	Deaf teaching assistants	DBE recognised teacher qualification
BEd honours	4		yes
BEd/ACE	3		yes
PGCE	1		yes
NDE	3		yes
BA/BA Psychology	1	1	no
Grade 12	1	2	no
Grade 11		1	no
Grade 10		4	no
SASL NQF 5 and less		5	no
Total	**13**	**13**	

From Table 1 above, only seven of the 26 SASL teachers and Deaf teaching assistants hold education degrees. This is one of the reasons why the SASL Curriculum Management Team advised the Department of Basic Education to adopt a team-teaching model whereby a qualified teacher is paired with a Deaf teaching assistant, who is a native signer, not a qualified teacher. The aim of the pairing is for the two educators to assist each other in the delivery of the SASL curriculum in the language the deaf learners understand (SASL). Table 1 shows that two individuals are appointed as teachers, even though they do not have the minimum requirement to be a teacher in a formal education context. The two individuals had Grade 12 and BA as their highest qualifications, yet they held teacher positions instead of teaching assistant positions.

In addition to formal teacher qualifications in SASL, the proficiency of SASL teachers was informally evaluated during the interviews. I measured the ability of each participant according to the linguistic areas as stated in the American Sign Language Proficiency Interview[2] (ASLPI), also known as SLPI:ASL (Hall, 2022). I had adapted this into SLPI:SASL. During the interviews, I focused on the following linguistic areas: pronunciation/production, grammatical accuracy, vocabulary, fluency, and comprehension. Thus, I evaluated these based on the participants' responses during the interviews. I awarded each participant an overall proficiency level on a 0–5 rating scale, as mentioned in the methodology chapter. I sped up the evaluation by creating three categories based on the ASLPI. Category A (0–1), basic users; Category B (2–3), independent SASL users; and Category C (4–5), proficient SASL users. Table 2 below shows the participants' positions on the scale regarding their SASL proficiency.

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[2] This is a holistic language evaluation used to determine ASL proficiency. The method originated in the United States but has recently been used internationally; for example, in SA as SLPI:SASL, in Kenya as SLPI:KSL and in Britain as SLPI:BSL. The method is used to determine a person's Sign language proficiency through a face-to-face interview (Hall, 2022).

Table 2: SASL proficiency levels of teachers and Deaf teaching assistants: 2016–2017

SASL Proficiency level	SASL teachers	Teaching assistants	**Total**
5	•••••	•••••••••••	**16**
4	••	•	**3**
3	•••		**4**
2	••		**2**
1	•		**1**
0			

Table 2 above shows that the SASL teachers' proficiency in SASL is distributed across the levels, while the majority (12 of 13) of teaching assistants' SASL proficiency is on the highest possible level. It must be noted that the five SASL teachers on Level 5 are Deaf. There is a learning curve for both team members: the Deaf teaching assistant gains insights into teaching, and the SASL teacher gains fluency in SASL usage, not only as a medium of communication but also as a school subject. For deaf learners, having teachers competent in SASL and interacting with Deaf adults helps them develop a positive self-image and acquire SL communication competency (Erting, 1974, 1980; Johnson & Erting, 1984; Kannapell, 1974; Moores, 1982; Giaouri et al., 2022).

1.3 Insufficient time for teaching

All the SASL teachers and Deaf teaching assistants in Grade 1 expressed satisfaction with the allocated time (six hours per week) for SASL. The SASL teachers and teaching assistants in Grade 9 felt that the allocated time of five hours per week was not enough to cover teaching, learning and assessment. They argue that since the SASL CAPS was introduced directly into Grades 1 and 9 in 2015, learners (particularly in Grade 9) lack prior knowledge. Therefore, SASL teachers are required to teach deaf learners prerequisite knowledge about the themes before actually implementing the SASL curriculum in the classroom. Some of the comments regarding a lack of time were:

> *They [Deaf learners] end up bringing the same homework back to school for us to help them because parents are unable to help them at home. No one of the parents of learners in my class can sign. This has an impact on the limited time we have for teaching SASL. One ends up not finishing the planned lesson.* (Bheki)

The participant pointed out that the time allocation for SASL was insufficient; he wanted more time to work on SASL with his class.

Another SASL teacher complained about the time available for poetry:

> *The time allocation for SASL is not enough. The timetable shows that we must teach poems on a weekly basis and, in addition to covering all components. There is no time to cover poems in detail weekly. In other words, you need to show the poems, do the stories, and then role plays.* (Star)

Zimmerman (2006) confirms this aspect, stating that teachers might be well-intended in helping their learners, but the lack of time remains an ongoing challenge. The situation for deaf

learners, whereby the school is the only place where they learn and use SASL, affects them. Omondi (2014) finds that the time allocated for conducting a class is an issue for language teachers as it is often insufficient for subjects that require participatory teaching methods, such as languages. Kirkgoz (2008) emphasises allocating sufficient time per subject because teachers need time to think of new ideas, try them out, and adapt them to their classroom context. Table 3 below shows the responses of teachers and teaching assistants regarding the time for teaching SASL.

Table 3: Adequacy of time for teaching SASL

	Responses	**Numbers**
Grade 1 teachers and teaching assistants	Enough	12
	Not enough	1
Grade 9 teachers and teaching assistants	Enough	4
	Not enough	9
Total		**26**

Table 3 displays that SASL teachers in Grades 1 and 9 have differing views on SASL teaching time. SASL teachers in Grade 9 reason that their deaf learners do not have prior knowledge of the linguistic aspects of SASL; therefore, to introduce a theme from the SASL CAPS, they (teachers) are required to establish some knowledge, which takes time. The SASL teachers feel that the allocated time for the SASL subject is not enough. The findings undeniably show that when teaching SASL, content has to be covered and deaf learners supported, yet the allocated time for teaching SASL, particularly in Grade 9, is insufficient.

1.4 Insufficient learning and teaching materials

The SASL teachers were asked about the availability of the learning and teaching support materials. Four of the 13 teachers expressed that the materials available for teaching the SASL subject were inadequate for successfully implementing the SASL CAPS. The teaching assistants were not asked specifically about the availability of teaching materials because they use what the SASL teachers have. The SASL teachers frequently mentioned technological materials, such as computers, laptops, smartboards, digital cameras, and DVD players. However, the list of the required LTSM mentioned in the SASL CAPS document is far longer than the teachers mentioned during the interviews. For example, no SASL teacher mentioned using TV series, biographies, editing software, comic strips, reports or vlogs. The SASL teachers stated that they could not set the objectives they would like their classes to attain because they did not have adequate resources (computers, books, flip charts, and video cameras) and facilities (laboratories, booths, and libraries). Dlamini and Zulu (2024) support this point by arguing that without resources and facilities, teaching is limited, as learners cannot be taught using the most suitable methods, require specific materials. A study by Kruijer (2010) states that a child-centred participatory teaching method in a classroom lacking teaching and learning materials, even though teacher–learner interactions are very high, prevents successful knowledge transfer. A survey by Okoro (2011) confirms that inadequate teaching resources lead to the selection of poor methods of instruction. Putri et al. (2020) also point out that teachers with limited infrastructure find it impractical to implement any curriculum

successfully in the classroom. I agree with Rogan and Grayson (2003: 1186) that "poor resources and conditions can limit the performance of even the best of teachers *during the implementation of a curriculum*" [emphasis added] (Rogan & Grayson, 2003: 1186).

Table 4: SASL learning and teaching materials in 2016–2017

Responses	Number of SASL teachers
Insufficient materials	4
Sufficient materials	9
Total	13

Table 4 above indicates the participants' responses on the availability of materials. Although the majority responded that the resources for teaching SASL were sufficient, the research noted inconsistencies. For example, teachers gave differing responses within the same school, whereby the materials were sufficient for one teacher while insufficient for another. In addition, four of the seven visited schools seemed to have too few necessary materials for teaching SASL. The study revealed a disparity between well-resourced schools and under-resourced schools. The well-resourced schools have equipment, such as computers, iPads for each learner, video cameras, smartboards, and facilities, whereas the under-resourced schools do not have sufficient resources and facilities.

1.5 Insufficient support structures

The data show that some SASL teachers and teaching assistants felt that they had received insufficient support from the DBE, school, parents and colleagues for the successful implementation of SASL CAPS. Some of the participants stated:

> *Unfortunately, we don't have a subject advisor for SASL. I've never met any specifically for SASL. Colleagues who teach English have subject specialists to consult for advice when they experience challenges with teaching English.* (Bheki)

Unlike teachers of other examinable school subjects, this participant (Adam) also does not benefit from the expertise of SASL subject advisors:

> *Sometimes, when you are finished doing the assessment you need to mark, the laptop jams. And you have to do an assessment without recording. There is no IT support person here at our school. There are neither desk computers or* (sic) *projectors. We have 36 laptops for 45 SASL students in Grade 9. I take into consideration the lack of IT person and the shortage of laptops in my mind when I plan the lessons. These factors have an impact on my teaching practice*. (Adam)

A participant expressed frustration with the lack of support:

> *At home, parents don't continue with what we do at school because they cannot sign*. (Bianca).

Another SASL teacher commented:

> *There is no support from parents of deaf children. Parents are not active participants in the education of their deaf children. They don't come to check or consult us on how*

> *their children are progressing. We don't have an opportunity to share our experiences of teaching SASL with them because they don't contact us. This lack of consultation with parents makes the implementation of SASL difficult because parents are not involved. The learning of SASL does not continue at home.* (Agang)

Teachers who participated in the research study acknowledged the support they had received from the DBE in the form of training workshops on SASL CAPS but were concerned that it was a once-off form of support. All the SASL teachers mentioned that they did not receive support from the subject advisors. Since teachers are primary agents of curriculum implementation, being insufficiently supported can hinder successful curriculum implementation. This agrees with the findings by Sharmaila and Mitchell (2015) that without support from key stakeholders, such as the Ministry of Education, in the form of quality teacher training, professional development and advisory services, successful curriculum implementation is constrained. Sharmila and Mitchell (2010) also indicate that the lack of teacher support and collaboration has proven detrimental to effective curriculum implementation. Wanjuri (2008) underscores the importance of the government (through the Ministry of Education) availing support to teachers during the implementation of a new curriculum because, without sufficient support, the initiative is doomed to fail. Moodley (2013) has found that a lack of support from the School Management Team (SMT) de-motivates teachers from effectively implementing the curriculum. According to Moodley (2013), in schools where the SMT does not translate the importance of effective curriculum and instruction practices into teaching regularly and does not observe classes nor evaluate assessment materials, curriculum implementation fails.

Table 5: Support given to SASL teachers and Deaf teaching assistants: 2016–2017

Critical role players	SASL teachers	Teaching assistants
DBE	Inadequate	Adequate
SMT	Inadequate	Adequate
Parents	Inadequate	Inadequate
Colleagues	Adequate	Adequate

Table 5 indicates that SASL teachers and teaching assistants experienced inadequate external support in implementing the SASL curriculum. Several research studies, such as those by Okoro (2011), Burgess, Robertson and Patterson (2010), and Ornstein and Hunkins (1998), confirm that curriculum implementation requires the involvement and support of various stakeholders, such as teachers, students, principals, parents, curriculum developers, education officers, and academics—all coordinating and collaborating during the implementation to reduce problems.

1.6 Poor management

This research study revealed that curriculum management through weak leadership at the school level is detrimental to implementing the SASL curriculum effectively. Participants from four of the seven schools for the Deaf stated that the principal has never offered them direct

support, for example, by visiting the class and asking how SASL teaching was going. These statements attest that:

> *She (principal) has never set her foot in my SASL classroom. Outside the classroom, we disagree a lot. Maybe she is afraid of a possible confrontation with me.* (Charles)

Cunningham and Cordeiro (2000) find class visits by school leadership important in terms of support; the authors assert that class visits create the opportunity for members of the SMT to observe a teacher's work, provide motivation, and exercise influence. Failure by the principal to visit classes because of personal matters thus affects curriculum implementation negatively. A teaching assistant was more straightforward:

> *To be honest, the SMT is not helping me. They always take the side of the teacher without listening to me. A strong leader listens to all the sides, no matter what.* (Danielle)

A study by Masekoameng (2014) highlights that weak instructional leadership is an inhibiting factor in implementing CAPS. Masekoameng (2014) reports that when SMTs do not affirm their commitment to leadership, teachers feel lost during curriculum implementation. Van der Horst and McDonald (2001) argue that if a school principal is not committed to school activities, it is detrimental to successful curriculum implementation. A strong educational leader "leads the change, and is not merely subject to it" (Van der Horst and McDonald, 2001:192). According to Briggs and Sommefeldt (2002), a weak school principal does not display the resolve to manage and lead the process of successful curriculum implementation.

1.7 Unconducive environment

This research study reveals that an unsustainable and unsupportive teaching and learning environment for a visual language, such as SASL, prevents successful implementation of the SASL curriculum. When asked about the challenges she faced in her SASL class, a Grade 9 SASL teacher commented:

> *We have many hard-of-hearing children who come to this school. These children are not signing in the classroom but speak* [using voices] *to each other. They lip read. So, you have a mixture of signing people and speaking people in the SASL class. It is not conducive because not everyone is using SASL. The environment is not good for sign language learning.* (Dabula)

As the participant states above, this is not a conducive environment for teaching and learning SASL. Mabunda (2023) states that teachers working in difficult environments find it nearly impossible to improve their professional performance.

According to Ridder (2008), if a learning environment is not conducive to learning, learners are likely to develop a negative attitude towards the subject, with the resultant poor achievement. Studies from different regions worldwide have shown that classroom climate is one of the most important predictors of successful curriculum implementation. Hence, a conducive learning environment is a prerequisite for positive teaching and learning to occur. One of the crucial strategies for learning sign language is "to maintain a signing environment during class, breaks, before class begins and whenever Deaf people are present" (Smith, Lentz

& Mikos, 1993). The next section discusses the external factors inhibiting the teaching of the SASL subject.

3. External factors inhibiting successful curriculum implementation

In addition to the internal factors, there are external factors the SASL teachers and Deaf teaching assistants cited as inhibiting the teaching of SASL as a subject. The factors related to the world beyond school include the lack of parental SASL skills, a shortage of adult language role models, under-resourced environments for SASL teaching and learning, and inadequate support from key stakeholders. Interviews with SASL teachers and Deaf teaching assistants revealed that external (outside of school) factors can also negatively influence the teaching of SASL. SASL teachers have cited parents not communicating in SASL as a significant factor. External factors emanate from outside the school; in short, they are related to the world beyond the school. The external factors related to SASL teachers and their work in the classroom emerging from my research are as follows:

- Lack of parental SASL communication skills
- Shortage of adult SASL role models
- Under-resourced environments for SASL teaching and learning
- Insufficient training prior to teaching SASL
- Inadequate support from key stakeholders
- Inadequate learning and teaching support materials

2.1 Lack of parental SASL communicating skills

The SASL teachers and Deaf teaching assistants highlighted that a lack of parental SASL ability and, thus, their un-involvement in the Deaf learners' language development contributes to the challenges of teaching SASL as a school subject. The majority of deaf and hard-of-hearing children (90–95%) are born to hearing parents (DesGeorges, 2016), and these parents have no prior knowledge of Sign language usage. The participants stressed that deaf children were only exposed to SASL at schools for the deaf because, at home, most parents cannot use SASL and are thus not creating a signing environment at home in which the child is exposed to SASL. The SASL teachers commented:

> *Parents need to be encouraged to learn sign language so that they can be able to support their children in language learning. Currently, children go home and just sit because their parents cannot communicate with them as they (parents) don't know SASL. When parents know how to communicate in SASL, they are in a good position to assist their child by maintaining the continuity of learning SASL. Deaf children do not only need to learn SASL at school, but at home too*. (Ann)

The participants' comments confirm that many deaf children do not have easy access to SASL because they are usually born into hearing families who do not sign. The situation impedes teachers from effectively implementing SASL CAPS because deaf children do not have language input in their homes (Mwarari et al., 2020).

In addition to the parents' lack of fluency in SASL, the SASL teachers stated that parents appeared not to support their children actively in learning the language. Furthermore, the parents make no effort to discuss their children's progress with the SASL teachers. The

following statement by a SASL teacher summarises the SASL teachers' experiences regarding parental support:

> *Yes, there is a lack of support from parents of deaf children. Parents are not active participants in the education of deaf children. They don't come to check or consult us about how their children are progressing. We don't have an opportunity to share our experiences of teaching SASL with them* [parents]. *This lack of consultation with parents makes the implementation of SASL difficult. The learning of the language does not continue at home. We give learners SASL homework but they come back not done because no one understands SASL at home. Instead of moving to a new theme, I give deaf learners a chance to do homework in the classroom.* (Ann)

Ann's experience with the lack of parental support in implementing the SASL curriculum is notable. According to Kostadinova (2012: 2374), there is a "pedagogical belief that the inclusion of the parents is one of the crucial tools in achieving better results in the upbringing and educational process…". If this belief is considered when implementing SASL as a school subject, teaching can be successful. There must be communication and cooperation between the parents of SASL learners and teachers in the language learning process. Collaboration between SASL teachers and the parents of deaf learners is encouraged to ensure the success of the SASL curriculum implementation. Despite complaints from SASL teachers, the researcher did not find any sign of the teachers making any effort to contact the parents. SASL teachers could initiate communication with parents rather than entering into a conflict situation whereby the two parties accuse each other of not providing support.

2.2 Shortage of adult SASL role models

Another external factor emerging from the data, alongside the lack of parental support, is the shortage of adult SASL role models (Gale et al., 2021). The data revealed that most deaf children did not have access to SASL in their childhood because they had been born to hearing parents who do not sign; thus, the children have little or no exposure to adult SASL role models outside of school. Most deaf children find themselves in situations with limited interaction with SASL models or no interaction with language models at all. This SASL teacher's comments illustrate the situations:

> *Knowing that there were no qualified Deaf teachers and SASL models, I, a hearing person, was chosen to teach SASL because colleagues and the school management believed that I knew the language. Apparently, the principal just returned from the DBE workshop where they were instructed to appoint SASL teachers. She announced to us teachers that the school wanted someone who is committed and passionate about deaf learners to teach SASL subject. Colleagues looked at me and said that I can teach SASL because we don't have a qualified Deaf teacher.* (Ann)

Instead of appointing an appropriate and qualified SASL teacher, the school just chose someone from among their existing teachers to teach the SASL subject, even though the chosen teacher was not proficient in SASL. Research has shown that SASL proficiency among SASL teachers forms the basis for successful curriculum implementation. Thus, one can conclude that the shortage of proficient SASL models at school could constitute a hindrance to SASL CAPS implementation.

Schools experience a shortage of SASL models in the form of qualified Deaf teachers and primary SASL users. At home, there are often no SASL models, as shown by De Andrade (2015), reporting that most deaf children are born to hearing parents who (in most cases) are not proficient in sign language.

2.3 Under-resourced environments for SASL teaching and learning

In addition, there is a school environment into which the curriculum is introduced. The particular circumstances of some schools make it difficult to implement the SASL curriculum. The environment constitutes: first, the socioeconomic status of the community in which the school is located; and second, the attitudes of the teachers, learners and management towards the SASL curriculum. Data from the research study revealed that of the seven schools for deaf learners in Gauteng, four are located in poor communities and three in affluent communities. The schools in poor communities struggle to find sufficient human, learning and teaching resources. The SASL teachers in these four schools expressed a need for SASL teaching and learning resources.

> *I need resource and support from the SGB, the community and the DBE. You see, there is no technology at our school; no smartboard, no laptops and no cameras in my classroom. These are important for SASL teaching in particular when it comes to the assessment. I need SGB to approve the purchase of additional LTSM but all the times the answer is; "there is no money". I need more resources to use in teaching SASL.* (Ella)

This Grade 1 teacher's comment shows that in poor schools for deaf learners, creating a suitable teaching and learning environment for SASL is difficult. An ideal SASL classroom environment has all the instructional technology, but Ella's classroom does not have any because the school cannot afford such technology.

I observed some issues, but the SASL teachers shied away from talking about those. For example, I asked Catherine if any other matters made teaching the SASL subject difficult. She responded as follows:

> *There are other issues that impede the successful teaching of SASL subject. The issues include, I will give two examples: the lack of human resources; and the appointment of incompetent people due to political favours or nepotism, which are prevalent in this community*. (Catherine)

This SASL teacher vented her frustration about the way appointments were made at her school. She felt that when people do not match the requirements of a position, they should not be appointed to that position. However, she claimed that it was happening at her school, where, as a result, she could not focus on her teaching.

2.4 Insufficient teacher training prior to teaching SASL

In addition to the environmental factors hindering the teaching of SASL as a school subject, insufficient teacher training prior to teaching SASL emerged as a crucial factor impeding the implementation of SASL curriculum. Data from the interviews revealed that SASL teachers in Grades 1 and 9 underwent limited training on SASL pedagogy, content knowledge, and further training on SASL teaching methods. A participant commented:

> *Honestly, I don't feel that I have been sufficiently trained to teach SASL as a subject. To qualify as an English teacher I studied for four years, which was a rigorous training on how to teach English. Now the department is implementing SASL subject and they gave us a two week workshop. In the classroom we are confused. There is nowhere to find help. That is a challenge. We don't feel that we have been sufficiently trained to teach SASL subject. The duration of the training was just two weeks.* (Adam)

The SASL teacher compares English and SASL as school subjects. He points out that in his preparation to teach English, he studied the language with its methodology for a duration of four years. However, for his preparation for teaching the SASL subject, he received two weeks of training. He feels ill-equipped to teach SASL as a subject because of such limited training. It was the general impression among the SASL teachers and teaching assistants that they experienced themselves as ill-equipped to successfully implement SASL CAPS because the training they had received was too short to equip them with the necessary skills. In other words, SASL teachers felt that the limited training they had for teaching SASL impedes the successful implementation of the SASL subject curriculum. The SASL teachers and teaching assistants had a five-day training session in February 2014 and another five-day training workshop in October 2014. Both training sessions were facilitated by the DBE. The two sessions were the only training SASL teachers and teaching assistants received from the DBE in preparation for the SASL CAPS implementation in January 2015. Data reveals that the SASL teachers and teaching assistants felt that the two five-day training workshops did not adequately prepare them for teaching the SASL curriculum.

According to the data, the SASL teachers interviewed felt that the training for the implementation of the SASL CAPS was inadequate. In other words, this inadequacy of the content in the training programme contributes to the challenges with implementing the SASL curriculum. The SASL teachers' comments affirm that the content of the training was not adequate to empower teachers in SASL curriculum implementation. When SASL teachers were asked whether they had been appropriately trained for teaching SASL as a subject and what the training constituted, a Grade 9 SASL teacher responded:

> *No, firstly what I learned was about the new curriculum. It was not enough because the focus was more on the language use. Some things such as literature were not taught to us in detail. We only did simple poetry. What about stories and novels? It is like they gave us nothing. The content was not enough. I am not satisfied with the quality of the training content. I need more training in order to be able to teach the SASL subject successfully.* (Dabula)

Dabula believes they were not instructed on how to teach themes such as poetry, novels and stories in detail. Consequently, she lacks the confidence to teach signed poetry and stories successfully to deaf learners.

Another SASL teacher, added:

> *For me I did not agree with the content of the training because it was superficial.* (Giselle)

Giselle states that the training did not meet her expectations, whereas she expected in-depth training on SASL pedagogy that would be adequate for her to teach deaf learners SASL successfully.

Dabula and Giselle's responses reflect their dissatisfaction with the quality of the training programme before the SASL CAPS rollout. The workshop did not adequately empower SASL teachers and teaching assistants to implement the SASL curriculum effectively. Data from the interviews reveal that some SASL teachers did not experience a training programme that included an in-depth discussion on fundamental aspects of SASL, such as Deaf culture, SASL grammar, meta-linguistics and SASL methodology. However, this claim by SASL teachers' seems to contradict a DBE training programme in October 2014. The DBE training programme included discussions on Deaf culture, bilingualism, assessment, teaching models and the SASL CAPS. Some of the SASL teachers interviewed appear not to have attended the workshops that were facilitated by the DBE; hence, their differing views on the content. Nevertheless, the SASL teachers might be correct about the limited examples of how to use SASL teaching materials. Due to the time limitation of the training program conducted in 2014, it was not possible to demonstrate how to use all the teaching materials. SASL teachers rely heavily on a diverse range of materials to support their teaching and their students' learning. A detailed demonstration of how to use SASL teaching materials could empower teachers in effectively using such materials in their teaching practices.

2.5 Inadequate support from key stakeholders

The SASL teachers' responses indicated that after the training course and as a continued part of their training, they expected to be monitored and supported in teaching SASL to obtain insight into their teaching practices in the classrooms and how they could rectify their mistakes in teaching SASL. According to international research on hearing teachers by Pirone et al. (2023), one or two short, unsustainable workshops are not effective for the successful implementation of a new curriculum. As the implementers of the curriculum, teachers require continuous support.

The participants were asked for factors inhibiting their teaching of SASL. Their responses indicated limited support from key stakeholders in the SASL curriculum, including the Department of Basic Education, school management teams, deaf learners, Deaf teaching assistants and their fellow SASL teaching colleagues.

While acknowledging the DBE for organising orientation workshops in preparation for the SASL curriculum rollout, SASL teachers and teaching assistants need more support from the department by providing subject advisors. The SASL teachers pointed out that they have advisors for other subjects, for example, English, but there are no advisors for SASL as a subject. A teacher at School D[3] commented:

> *I have never met an advisor for SASL. I have never seen anyone here at school - anyone who approaches me to say: "Do you need help?". For English language, there are people* [subject specialists] *to contact for leadership when teachers experience challenges. For SASL, we don't have that. This has a negative impact on the implementation of the SASL curriculum.* (Dafiyah)

A teacher at School G added:

> *If there were subject advisors, we can speak to. At the moment there is no one.* (Giselle)

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[3] The names of schools are withheld.

Despite the 2009 declaration of the DBE stating that the "system is almost totally dependent on subject advisors and district staff to act as intermediaries between curriculum policy and implementation in the classroom" (DBE, 2009: 8), no subject advisors were provided for SASL during the introduction of SASL CAPS in schools for the deaf in 2015. The SASL teachers and teaching assistants felt that the lack of subject advisors for SASL hindered their teaching of the language because there was no monitoring and support. Mdutshane (2006) asserts that teachers must be monitored and supported by subject specialists in teaching.

Apart from insufficient support from the SMT, the SASL teachers indicated that the inadequate provision of teaching assistants negatively impacted their implementation of the SASL curriculum. The data reveal that some SASL teachers, despite not being proficient in SASL, are not provided with teaching assistants. A Grade 9 SASL teacher commented:

> *I have been teaching SASL for nine months now. Last year I had difficulties with how to teach sign language. I went to a workshop for one week, and when I came back I had to teach sign language without a teaching-assistant. The school did not employ one for me. I complained to the principal that I was confused. I was a learner* [new to SASL] *at the time yet I was expected to teach the language to deaf learners without the support of a teaching-assistant. It was tough.* (Catherine)

This comment indicates that when a SASL teacher works without a teaching assistant proficient in SASL, implementing the SASL curriculum is negatively affected. The DBE, at the recommendation of the SASL CMT, advised schools for deaf learners to adopt a team-teaching approach whenever there was no teacher fluent in SASL. A team teaching approach refers to pairing a teacher (qualified) and a Deaf person (L1 signer but not a qualified teacher) (DBE, 2013d). The DBE (2013d) states that team teaching provides both SASL teachers and Deaf teaching assistants with better opportunities to capitalise upon each other's unique, diverse and specialised knowledge, skills, and instructional approaches. This means that if they cannot work as a team with the same goal, teaching SASL as a subject cannot be successful. According to information collected from participants, when an SASL teacher not fluent in SASL teaches alone, implementing the SASL curriculum is impeded.

The data derived from SASL teachers and teaching assistants also revealed that unenthusiastic learners with a lack of interest in the SASL subject impede successfully teaching SASL as a subject. Teachers become demotivated by uncooperative and unsupportive learners. Learners are the main players in the curriculum implementation. Their non-participation therefore can hamper successful implementation of a curriculum. Although many SASL teachers interviewed did not directly comment about deaf learners and experiences in an SASL classroom, some teachers detailed how learners' attitude hindered the implementation of SASL CAPS. A Deaf teaching assistant at School G expressed her frustration with some learners during the teaching of SASL subject: '*Learners in my class said: "I am in a deaf school but sign language isn't my language of communication".*'

The teaching assistant stated the following about another learner who was recently admitted to a school for the deaf:

> *She is strongly oral and doesn't want to learn sign language. Her attitude is so bad in a SASL class. The lack of support from these learners in the teaching of SASL was a demotivating factor in the implementation of the SASL curriculum.* (Gabriella)

2.6 Inadequacy of the learning and teaching support materials (LTSM)

The data gathered points to another overarching factor hampering successful curriculum implementation, namely the "inadequacy of LTSM" (Fesi & Mncube, 2021). For this research study, LTSM refers to the learning and teaching resources mentioned in the SASL CAPS (Hoffmeister et al., 2022). Since SASL teachers rely on materials to support their teaching and their learners' education, LTSM must be made available in SASL classrooms. The data revealed that the distribution of the resources in schools was different based on the socioeconomic status of the school. For example, SASL schools situated in affluent communities did not experience a shortage of teaching materials and infrastructure. SASL teachers from schools in poor communities complained that implementing SASL CAPS was hampered by the inaccessibility and unavailability of the primary materials required for teaching the SASL subject. However, all the SASL teachers and teaching assistants generally believed that the lack of or inadequacy of resources and the appropriate infrastructure was a factor impeding the successful implementation of the SASL curriculum due to the visual nature of SASL. Some teachers confirmed that they had SASL teaching resources, but these were limited.

A Deaf teaching assistant at School E commented:

> *The SMT supports us with resources for teaching SASL such as TVs, DVDs, and video cameras, but I would like us to have more cameras. The cameras we have are not enough for all the learners in the classroom. I need at least four more cameras, so that each learner has a video camera to record themselves signing. It wastes time if two or three learners have to share a video camera. It also creates tensions and affects the teaching programmed and fair assessment. I need more resources for SASL.* (Earl)

Earl acknowledged the effort of the SMT to provide him with the SASL teaching resources, such as video cameras, but feels that the resources should be sufficient for all the learners to avoid interrupting the teaching process because learners have to share a video camera.

Another Deaf teaching assistant expressed the need for infrastructure to help improve her SASL teaching:

> *They (SMT) support us by getting us things such as DVDs players, laptops, all the required materials, but the challenge is that we don't have other important resources for teaching SASL such as filming booths and SASL laboratories. The availability of these can help us eliminate interruptions when we record. The resources will help ensure that learners focus when we teach. But this is something that we are begging our leaders to provide. In the meantime, we just continue with what we have but this hinders the effective teaching and learning of SASL.* (Audrey)

The data derived from the SASL teachers and teaching assistants revealed that the seven schools for the deaf in Gauteng indeed have resources, but their availability and accessibility differ between schools. Some schools, such as those situated in cities, are well-resourced. The schools have the resources listed in the SASL CAPS, and they have the requisite infrastructure, such as SASL laboratories and filming booths, to accommodate the recording needs of SASL learners and teaching assistants. Other schools for the deaf, particularly those situated in poor communities, had limited resources. They lacked proper functioning resources such as laptops, tablets for individual learners, SASL laboratories, internet access and the necessary software. These resources would provide the support needed for successful sign language

implementation. At one school for the deaf, far away from the city, I discovered that the SASL teacher had only a laptop in the classroom and observed no evidence of other resources. The electrical outlets were not working, internet access was unavailable, and there were no SASL resources for teachers, teaching assistants, and learners to use in the SASL teaching and learning process.

Conclusion

This research study explored the experiences and perceptions of South African Sign Language teachers and Deaf teaching assistants during the first implementation of the SASL curriculum in schools for the deaf in Gauteng. The data analysis of the interviews revealed two sets of factors: first, factors facilitating the teaching of the SASL subject and second, factors inhibiting the teaching of the SASL subject. This article focused on the latter as experienced by Grades 1 and 9 SASL teachers and Deaf teaching assistants in schools for deaf learners in the Gauteng province of South Africa.

The findings show that although the introduction of the SASL curriculum for deaf children was necessary and overdue, the implementation process brought problems, which impacted Deaf Education. The study also demonstrates the demands on the resourcefulness of SASL teachers and Deaf teaching assistants in terms of their preparation to teach, collaboration and innovation. In addition, the data demonstrate that teachers deal with inhibiting factors based on the school's socioeconomic situation. Schools for deaf learners in affluent communities have adequate SASL teaching and learning recourses, while schools in poor communities have inadequate LTSM. However, inhibiting factors, such as inadequate training, inadequate subject matter knowledge, insufficient teaching time, poor support structure, poor curriculum management, an unfriendly SASL environment, and negative attitudes, were found to be the same across the schools for deaf learners. The research study laid a foundation for future research in the field of sign language and deaf pedagogy.

REFERENCES

Badugela, TM. 2012. *Problems facing educators implementing the National Curriculum Statement: the case of Tshifhena Secondary School, Vhembe District, Limpopo Province*. Pretoria: University of South Africa.

Burgess, J, G Robertson & C Patterson. 2010. Curriculum implementation: Decisions of early childhood teachers. *Australian Journal of Early Childhood, 35*(3):51–59.

Brindley, G & Hood, S. 1990. Curriculum innovation in adult ESL. In G Brindley (Ed.). *The second language curriculum in action.* Sydney: National Centre for English Language Teaching and Research.

Chaudhary, GK. 2015. Factors affecting curriculum implementation for students. *International Journal of Applied Research*, 1(12):984–986.

Cunningham, WC & Cordeiro, PA. 2000. *Educational administration: a problem-based approach*. New York: Allyn and Bacon.

Dlamini, TC & Zulu, FB. (2024). Curriculum implementation challenges and responses during the COVID-19 pandemic in a rural secondary school in South Africa. *African Journal of Career Development*, 6(1):a73. https://doi.org/10.4102/ajcd.v6i1.73

Elliott, J & Norris, N. (Eds). 2012. *Curriculum, pedagogy and educational research: The work of Lawrence Stenhouse*. London and New York: Routledge.

Erss, M. 2017. Curriculum as a political and cultural framework defining teachers' roles and autonomy. Finland: Tempere University Press.

Erting, C. 1994. *The Deaf way: perspectives from the international conference on Deaf Culture*. Washington DC: Gallaudet University Press.

Fesi, L & Mncube, V. (2021). Challenges of English as a first additional language: Fourth grade reading teachers' perspectives. *South African Journal of Education*, 41(3):1–11 https://doi.org/10.15700/saje.v41n3a1849.

Fullan, MG. 1991. The meaning of educational change. In MG Fullan. *The new meaning of educational change*. (pp. 30–46) New York: Teachers College Press.

Fullan, MG. 2007. *The new meaning of educational change*. (4th ed). London: Cassel.

Gale, E, M Berke, B Benedict, S Olson, K Putz & C Yoshinaga-Itano. Deaf adults in early intervention programs. *Deafness and Education International*. 23(1):3–34.

Giaouri, S, M Hatzopoulou, S Karipi & A Alevriadou (2022). The role of Deaf practitioners as role models and sign language teachers in three European countries. *Trends in Psychology*. 32(4).

Hall, F. 2022. American Sign Language Proficiency Interview (ASLPI). Available from https://gallaudet.edu/american-sign-language-proficiency-interview-aslpi/ [Accessed: 28 July 2024]

Haquea, A & David, SA. 2022. Effective curriculum implementation for optimal teaching and learning experience: a study from a private school in Dubai. *International Journal of Curriculum and Instruction*, 15(1): 1–20.

Harris, A & Bennet, N. 2001. *School effectiveness and school improvement*. London: Continuum.

Hoffmeister, R, S Karipi & V Kourbetis. 2022. Bilingual materials supporting signed language as a first language for deaf students: The integration of technology learning and teaching. *Momento-Dialogos em Educacao,* 31(02):500–527.

Johnson, R & Erting, C. 1984. *Mother father Deaf: Living between sound and silence.* Cambridge: Harvard University Press.

Kannapell, AJ. 1974. *Deaf empowerment: Emergence, struggles, and rhetoric.* Washington DC: Gallaudet University Press.

Kirkgoz, Y. 2008. A case study of teacher's implementation of curriculum in Turkish primary education. *Teaching and Teacher Education, 24*(2008):1859–1875.

Kiyaya, NB & Moores, DF. 2009. Deafness in sub-Saharan Africa. In DF Moores & MS Miller (Eds.). *Deaf people around the world*. Washington, DC: Gallaudet University Press.

Mabunda, P. 2023. The implementation of curriculum and assessment policy statement: School managers' perspectives and experiences. *Perspectives in Education*, 41(4):65–81.

Magongwa, L. 2020. *The introduction of South African Sign Language as a first language subject in schools for the Deaf in Gauteng: Teachers' experience*. Johannesburg: University of the Witwatersrand.

Masekoameng, MC. 2014. *An instructional leadership perspective on the management and implementation of curriculum and assessment policy statement in South African schools*. Pretoria: University of South Africa.

Moodley, G. 2013. *Implementation of the curriculum and assessment policy statements: Challenges and implications for teaching and learning*. Pretoria: University of South Africa.

Moores, DF. 1982. *Educating the deaf: psychology, principles, and practices.* Boston: Houghton Mifflin Company.

Morgan, R, M Glaser & L Magongwa. 2016. Constructing and rolling out South African Sign Language curriculum: Reflexive Critique. *Per Lingam.* 32(2): 15–29.

Musengi, M & R Chireshe. 2012. Inclusion of deaf students in mainstream rural primary schools in Zimbabwe: challenges and opportunities. *Studies, Tribes & Tribals,* 10(2):107–116.

Mwarari, CN, P Githui & M Mwenje. 2020. Parental involvement in the implementation of competency-based curriculum in Kenya: perceived challenges and opportunities. *American Journal of Humanities and Social Sciences Research.* 4(3):201–208.

Nevenglosky, EA, C Cale & SP Aguilar. 2019. Barriers to effective curriculum implementation. *Research in Higher Education Journal*, 36.

Ngobeni, WP, JR Maimane & MP Rankhumise. 2020. The effect of limited sign language as a barrier to teaching among deaf learners in South Africa. *South African Journal of Education*. 40(2). Accessed 19 July 2024.

Ngwenya, C. 2019. Curriculum implementation challenges encountered by primary school teachers in Bulawayo metropolitan province, Zimbabwe. *Africa Education Review*, 17(2):158–176.

Omondi, MP. 2014. *Factors influencing implementation of curriculum in public primary schools in Ukwala division of Siaya County, Kenya*. Kenya: University of Nairobi Press.

Okoro, J. 2011. Strategies for enhancing the functionality of business studies in universal basic education programme in South-South Nigeria. *Crown Research in Education*, *1*(2):18–23.

Ornstein, AC & FP Hunkins. 2013. *Curriculum: foundations, principles and issues,* (6th ed). Washington, Seattle: Pearson.

Pirone, J, K Pudans-Smith, T Ivy & J Listman. 2023. The landscape of ASL education. *Foreign Language Annals.* 56(2):1–21.

Putri, RS, A Parwanto, R Pramono, M Ashari, LM Wijayanti & CC Hyun. 2020. Impact of COVID-19 pandemic on online learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*. 29(5), 4809–4818.

Ridder, H. 2008. *A learning environment for sign language. 8th IEEE International conference on automatic face and gesture recognition.* Amsterdam, The Netherlands, 17–19 September 2008. https//doi.org: 10.1109/AFGR.2008.4813421

Rogan, JM. 2004. Out of the frying pan …? Case studies of the implementation of Curriculum 2005 in some science classrooms. *African Journal of Research in Science, Mathematics and Technology Education*, *8*(2):165–179.

Samuel, RM. 2016. School based factors affecting learning of Kenyan Sign Language in primary schools for hearing impaired in Embu and Isiolo countries, Kenya. Kenya: Kenyatta University.

Sharmila, NH & Beular, M. 2015. An investigation into teachers' perspectives of the factors that facilitate the implementation of the e-CAL curriculum change initiative in Trinidad and Tobago. *International Journal of Digital Society (IJDS)*, *6*(3), September 2015.

Sibanda, P. 2015. Analysis of sign language proficiency among teacher of the deaf in primary schools in Bulawayo, Zimbabwe: Implications for learning and inclusion. *Scientific Journal of Pure and Applied Sciences*. *4*(9):157–165.

Smith, C, EM Lentz & K Mikos. 1993. *Signing naturally: student workbook*. San Diego, California: DawnSignPress.

Tlale, L, 2019. Challenges experienced in the practice of sign bilingual education as a strategy for inclusion of deaf children in mainstream schools in Zimbabwe. *Journal of Social Sciences and Humanities.*16(1):1–12.

Van der Horst, H & McDonald, R. 2001. *Outcomes-based education: theory and practice*. Pretoria: University of South Africa.

Verster, MC, DJ Laubscher & C Bosch. 2023. Facilitating blended learning in underprivileged context: a self-directed curriculum praxis view. *Competence-based curriculum and e-learning in higher education*. IGI Global. 20–50.

Wamae, GM. 2003. *Effects of sign language mode of instruction on acquisition of English affixes by hearing Form 2 learners*. Nairobi: Kenyatta University.

Wanjiru, J. 2008. *Factors influencing effective implementation of the curriculum in Kamkunji Division*. Nairobi: Kenyatta University.

Wedell, M. 2003. Giving TESOL change a chance: supporting key players in the curriculum change process. *System*, 31:439–456.

Zacharia, Z. 2003. Beliefs, attitudes, and intentions of science teachers regarding the educational use of computer simulations and inquiry-based experiments in physics. *Journal of Research in Science Teaching*, *40*(8):792–823.

Zimmerman, J. 2006. Why the teachers resist change and what the principals can do about it. *National Association of Secondary School Principals Bulletin*, *90*(3):238–249.

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