**Data findings summary**

**1. Response to research questions**

 I presented the findings on the sign language challenges encountered by deaf learners born to hearing parents. I identified and provided a detailed discussion of the five themes that emerged from the study, together with their subthemes, incorporating the data with the lessons observed in the field, and relating this to the existing literature that correlates with the findings of this study. In this section I present the formulated research questions that guided the study. I initially provide answers derived from the findings discussed in Chapter 4 as responses to the three research secondary research questions stated in Chapter 1. I then endeavour to answer the primary research question. Throughout this chapter I linked the findings to the existing literature reviewed in Chapter 2. Table 4.2 in Chapter 4 , illustrates the way in which the themes identified in Chapter 4 eventually provided answers to the research questions.

 What are the factors influencing deaf learners’ use of sign language?

This question assisted in identifying factors that influence the use of sign language by deaf learners. The main aim of this question was to identify and discover these factors as they have an impact on sign language acquisition. These factors emerged from the findings pertaining to themes 1 and 2 and related to the extant literature. These factors were noticeably, firstly, indicated by the hearing parents who then explained the journey they went through in the process of discovering that their child was deaf, seeking professional assistance, and coming to an acceptance of the condition and the situation (subtheme 1.2 and 1.3). Furthermore, the deaf learners in the study indicated that their hearing parents are unable to use SASL at home as they are not native signers. This leads to the use of natural, home-made sign language and spoken language at home as a method of communication, without the use of proper SASL, as discussed in subtheme 2.1.

The findings further indicate that a family background of deafness and sign language plays a significant role in a hearing family’s understanding of deafness and the ability to use sign language. A family’s prior understanding of deafness has a positive effect on deaf learners in acquiring sign language at home and being supported by their family. However, a family without a background in sign language has been identified as one of the factors influencing the use of sign language by deaf learners (subtheme 2.2). The lack of SASL results in misunderstandings and communication barriers between hearing families and the deaf child. In addition, some deaf learners in the study indicated that they did not have hearing friends and preferred making friends at school with other deaf learners. Making friends is a developmental task but is difficult for deaf learners since children interact as they play together and communicate using spoken language, which can make the deaf child feel marginalised and excluded.

In conclusion, these factors, which influence the acquisition of sign language by deaf learners, indicate that deaf learners enrol at school without SASL basics, and teachers then have the responsibility to teach them the fundamentals of sign language.

**1.1.2. How can hearing parents support their deaf child in acquiring sign language?**

This question serves as a follow-up question to the first secondary question about how deaf learners are supported by their hearing parents at home in the acquisition of sign language and with their homework. This research found that hearing parents are offered SASL training by the school for the Deaf, in order for them to support deaf learners at home. However, the majority of hearing parent participants indicated they had not attended the SASL training offered to them.

Hearing parents’ support for their deaf children is lacking, specifically in learning sign language, and some hearing parents indicated that they wrote down the answers for their children when they were doing their homework. One of the sign language barriers highlighted in the study is the difficulty for parents to communicate and explain what is required in the homework assignments to their deaf children. Hearing parents mainly used a bilingual approach with their children at home, where spoken language was used to explain certain concepts instead of sign language. This caused confusion for the deaf children as they were taught one language at school and another was used at home.

The study results indicate that hearing parents who attended SASL training were much better equipped to understand SASL. They at least know the basics of sign language and are able to support their deaf children compared to those who did not attend the training. Deaf children whose parents did not attend the SASL training had less support from their hearing parents in sign language acquisition at home, as discussed in subtheme 3.1. Another way of learning a language it is through media such as television and radio. The findings indicate that hearing parents have to interpret programmes on television for their deaf children using natural sign language, especially if they do not have subtitles. Accordingly, deaf children have limited choices of television programmes, because most programs do not include a sign language interpreter.

**1.1.3. How can teachers support deaf learners to enhance their use of sign language?**

This question explored views from both teachers and parents of deaf learners concerning teaching strategies adopted to enhance sign language use by deaf learners (see section 2 in chapter 4). Teachers indicated that the use of technological devices to teach deaf learners is the main resource utilised. The reasons teachers provided included that deaf learners learn better when using visual materials rather than when doing written work. This study showed that technology kept learners interested in the lesson content and the learners were better able to memorise what was taught in class when the lesson was presented visually using technology.

In addition, teacher should also note that deaf learners exhaust faster than normally expected, thus lessons should include various activities in order to change their focus and rest their eyes. However, these recommendations and support offered by teachers at school are not sufficient in supporting deaf learners to learn sign language. The research finding of this study indicates that the teachers were concerned about the general lack of parental support for deaf learners. The teacher participants advised that the hearing parents of deaf learners need to be fully involved in supporting deaf learners at home, and should be willing to learn SASL and attend SASL training courses in order to provide adequate support.

Teachers further indicated that they provided extra or bridging classes and offered expanded opportunities for extra support and an Individual Support Plan for learners with learning barriers, in line with what is required by the inclusive education, SIAS and other related policies that support learners with learning difficulties or barriers. The teachers indicated that support from the school and the teachers is not enough, as deaf learners need the support of their parents to be able to reach their full potential.

In conclusion, the findings aligned with the extant literature regarding the significance of support by hearing parents for their deaf children.

**The primary research question: What are the sign language challenges experienced by deaf learners born to hearing parents?**

With the findings derived from the secondary questions, I then respond to the main research question for the study. This question arises within the context of discovering sign language acquisition challenges. These experiences have been identified and briefly discussed in the themes, such as themes 1 to 4 which were discussed in Chapter 4. Answers derived from the secondary questions indirectly provided responses to this primary question, hence the highlighted points in relation to the experiences of sign language are further discussed in the subsequent paragraphs.

The findings of the study and the literature review have shown that hearing parents of deaf learners have a profoundly negative impact on deaf learners’ acquisition of sign language. Almost 90% of deaf learners are born to hearing parents and thus a large proportion of deaf learners’ experience delays in learning sign language. A language is acquired and learnt at home, but this is not the case for deaf learners with hearing parents. When a deaf learner enrols at school for the first time without a SASL background, they have to be taught the basics of SASL by their teachers. This causes an understandable delay in the use of sign language for deaf learners. The research data gathered in this study supports the notion that sign language acquisition only occurs at school level for majority of deaf learners.

As a result of a lack of adult and peer models of sign language in the deaf child’s household, learning a language (both sign and spoken language) is much more difficult for deaf children born to hearing families. Communication and language barriers thus start at home, where deaf children are supposed to grasp all the basics of sign language and be able to interact and socialise using sign language. Moreover, deaf children grow up in a hearing society which has no SASL background and is unwilling to learn sign language to accommodate deaf children. Broader social interaction using sign language is therefore hindered for deaf learners. The onus is on hearing parents to commit themselves to SASL training as early as possible in order to avoid sign language acquisition delays for their deaf child.

Another challenge discovered in the study is the relatively late discovery of deafness in a child by hearing parent (subtheme 1.1). The findings indicated that the majority of hearing parents discovered that their child is deaf at a late age. Some parents indicated that they discovered that their child was deaf at the age of two or three.

By the age of two or three a hearing child is expected to at least have grasped more than a thousand words and have the ability to make sentences with meaning. The deaf child without an introduction to sign language reaches that age with a limited vocabulary, nor are they able to use sign language to communicate meaningful. Deaf children who have been identified early on are more likely to receive early intervention, which results in better language development.

The earlier a child is diagnosed as being deaf, the earlier intervention can occur. The sooner a deaf child is introduced to sign language, the sooner the child will be able to understand and interpret his/her environment. This understanding will support the deaf child’s socialisation with his/her family and peers. Behaviour difficulties, deaf children whether from hearing or deaf families, profit from bilingual instruction in expressing understanding of how others’ beliefs, feelings and intentions can influence their thinking and behaviour. Furthermore, Piaget discussed the expected cognitive developmental stages of a child, as discussed in Chapter 2 of this study, indicating the phases and changes that occur in a child when growing up. This study did not, however, explicitly focus on cognitive development but it could be argued that with delayed language acquisition it might cause developmental delays in a deaf child.

The findings of this study and of the literature review therefore lead to the conclusion that it is not possible to discuss sign language challenges encountered by deaf learners without mentioning the parents’ role in language development.

In addition to the late diagnosis of deafness in children in the study and delayed sign language acquisition, the study also explored the negative impact of teachers who are not fluent in the use of sign language. The teachers in this study indicated that they had to learn sign language from colleagues and from deaf learners at the school where they are employed. This in-house sign language training meant that some teachers learnt sign language at the same time as the deaf learners they taught. Teachers who are not fluent in the use of SASL do not have the specialised expertise to teach SASL to deaf learners. Teachers acquiring SASL at the same time as they are teaching deaf learners thus have a negative impact on the deaf learners’ acquisition of sign language.

These findings are commensurate with the literature which states that despite the fact that sign language has been adopted as the language of learning and teaching in many schools for the Deaf in South Africa, only 14% of teachers have well-developed SASL skills (Ntinda et al., 2019). Most teachers lack specialised expertise in using sign language to scaffold textual literacy skills in a second language, as well as instruction in using a signed language to scaffold textual literacy skills in a second language.

I conclude that sign language challenges encountered by deaf learners born to hearing parents, that these challenges are encountered from their parents, teachers and also the society they live in, where there are no sign language basics and learning. The findings indicate that a language is learnt from others, and that sociocultural influences play a vital role in acquiring and learning sign language. The authors of the extant literature have discussed these challenges and the findings of this study generally agreed and aligned with these facts. The literature cited was mostly international literature, but the same difficulties were seen in the current study in the South African context. I am cognisant of the fact that there are numerous challenges within the context of Deaf Education and SASL acquisition that still need to be addressed. SASL makes it possible for deaf learners to receive age-appropriate education at the same level as their hearing peers. Therefore, it is important to ensure that the barriers to learning SASL are identified and addressed.