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**Assessment of the Education of Deaf Students in the Integrated Primary
Schools of Amhara National Regional State: Practices, Opportunities and
Challenges**

By:

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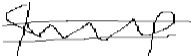
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I declare that the above thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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ABSTRACT

The purpose of this study was to assess the educational practices, opportunities and challenges of deaf learners in Amhara National Regional State Integrated Primary Schools. Both qualitative and quantitative research approaches and descriptive research design have been used to accomplish this purpose. The samples of this study were deaf learners, teachers of deaf learners, and principals from ten (10) Integrated Primary Schools in the research area. From 343 deaf learners in Grades 5–8, only 170 (50%) of them were selected through simple random sampling technique. Of the 110 teachers of deaf learners, 55 (50%) of them were selected using probability sampling method of simple random sampling technique and from the 10 Integrated Primary Schools, 10 principals were selected using the non-probability sampling technique of the purposeful sampling method. The data was gathered by means of observation, interview and questionnaire. Deaf learners, their teachers in the classroom and the school compound of the Integrated Primary Schools were observed. Deaf learners, teachers of deaf learners and school principals were interviewed, and questionnaire was also administered to deaf learners and their teachers. The result indicated that the overall school environments of the Integrated Primary Schools are not conducive for deaf learners. In the classrooms, oral communication is used as a means of instruction and to exchange ideas among deaf learners, teachers and learners without hearing impairment that did not help deaf learners to be socially integrated. In the teaching-learning process, deaf learners' classroom participation was poor, and their overall achievement is found to be less than learners without hearing impairment. Besides, in the Integrated Primary Schools, teacher's inability of sign-language, shortage of teaching materials and resources, absence of different types of teaching and assessment methodologies were the major challenges faced by deaf learners. The opportunities that deaf learners receiving were monthly pocket money and school uniform from the Integrated Primary Schools. The Integrated Primary Schools need to design policies, strategies and mechanisms that solve and/or minimize the educational challenges of deaf learners and on how to maximize the integration of learners with and without hearing disabilities, teachers and the school community in general to achieve better in the education system.

Key Words: Assessment, Challenges, Deaf Students, Integrated Primary Schools, Opportunities and Practices

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ACRONYMS AND ABBREVIATIONS

ASL	American Sign Language
EDPM	Educational Planning and Management
EFA	Education for All
ETP	Education and Training Policy
FDRE	Federal Democratic Republic of Ethiopia
FENAPD	Federation of Ethiopian National Associations of People with Disabilities
GDP	Gross Domestic Product
GEQIP	General Education Quality Improvement Programme
IEP	Individualised Education Plans/Programme
IJR	International Journal of Research
MCE	Manually Coded English
NER	Net Enrolment Rate
PwD	Persons with Disabilities
SA	South Africa
SDG	Sustainable Development Goal
SHI	Learners with Hearing Impairment
SNE	Special Needs Education
UNCRPD	United Nation Convention on the Rights of Persons with Disabilities
UNISA	University of South Africa
WASCE	West Africa School Certificate Examinations
WHO	World Health Organization

CHAPTER 1

AN OVERVIEW OF THE STUDY

1.1. INTRODUCTION AND BACKGROUND

One of the 21st century major services at schools is provision of inclusive activities of learners with diverse needs, and there still are efforts to develop inclusiveness considering persons with disabilities (Schiemer, 2017). Inclusion has developed from the belief that education is a basic human right for all and that it provides the foundation for a more just and accepting society (Thakur, 2014). The fundamental principle of inclusion is that all persons should learn, work and live together wherever possible regardless of any differences they may have to reach their fullest potential in education, livelihood, health, empowerment and building social relationships among individuals, groups and nations (Ministry of Education [MoE], 2016). Arduin (2015) also views that the goal of inclusion is associated with achieving friendship, participation, democratization, benefit, equal access, quality, equity and justice for all learners in school culture and curricula.

Inclusion implies transition from segregated learning and working environments for persons with disabilities to integrated settings for inclusive services. According to Tesfaye (2014), effective transitions from segregated service to inclusive service requires careful planning and structural changes to ensure that persons with disabilities are provided with appropriate accommodation and supports to bring change. The educational environment must be adjusted to meet the needs of all learners to respond positively to learners' diversity by identifying barriers that hinder learning and removing these barriers in education (MoE, 2016). Inclusive services at Integrated Primary Schools are quality provisions to all educational, social and instructional contexts and responding to the diverse needs of all people through increasing participation in learning, employment, cultures and communities. It also involves changes and modifications in approaches, structures and strategies which cover all people. It is the responsibility of the social system to educate all people, employ and provide social services (Ministry of Science and Higher Education [MoSHE], 2020).

The effective implementation of inclusive services covers a number of areas. These include educational, social, language, economic, health and generally different care services provided for people with special needs. In inclusive settings, all individuals need an education that will help them develop relationships, prepare themselves for life in the wider community, and help them

learn and live together since there are no legitimate reasons to exclude individuals because of their disability (UNICEF, 2014). Inclusion has the potential to reduce fear and build friendship, respect and understand diversity, use resources efficiently and do better academically for learners and thus decrease dropouts and repetitions. Inclusion has also economic benefit both for an individual and for a society (MoE, 2016). Particularly, inclusion has better employment and job creation opportunities for people with disabilities (UNICEF, 2014). The disability inclusive development can be realized by the effective implementation of key components such as the inclusive education services, inclusive social services, empowerment services, and livelihood services and inclusive health services. Inclusive education services help to make education inclusive at education institutions and to facilitate access to education for people with disabilities. The inclusive educational services ensure people with disabilities to have meaningful roles and responsibilities in their families, schools, communities, countries and to be treated as equal members of society (Lintangsari & Emaliana, 2020).

The inclusive educational services facilitate educational access for people with disabilities to acquire educational skills essential for work, livelihood opportunities, enhanced participation in community life and self-fulfillment (Lintangsari & Emaliana, 2020). However, inclusive services face challenges. One of the challenges is implementation difficulties (Haug, 2017). Across the world, people with disabilities have poorer health outcomes, lower education achievements, less social involvement, less economic participation and higher rates of poverty than people without disabilities because of the limited types of inclusive services in schools that are rendered to them, and the barriers in accessing the inclusive services include educational provisions and social facilities ((Lintangsari & Emaliana, 2020). On the contrary, people with disabilities have the right to equal opportunity to fully engage in education, social life, livelihood, job and career. Despite the fact that persons with disabilities have equal rights like any citizen in the country, they do not get opportunities to become full participants in all rounded activities due to personal factors, the society's negative out looks, organizational barriers, gaps from the side of professionals such as teachers in knowledge and skill to provide different services and social and environmental barriers.

People with disabilities confront a variety of challenges including personal issues, environmental accessibility, and social barriers in the classroom. Personal variables can be both physical and socioeconomic in nature. The physical barriers are gender, ethnicity, impairment (physical, visual, hearing, intellectual, mental), and the socioeconomic factors such as wealth, class, social inclusion, and educational attainment. As a consequence, people with disabilities in schools are

socially and environmentally segregated and discriminated against, excluded from participation in the majority of educational and extra educational activities and very far from social inclusion (UNHR, 2014). Environmental factors can relate to accessibility, policy, socio-economic and service factors. Accessibility types of environmental factors include physical structure of towns and/or cities, accessibility of buildings, accessibility of information and accessibility of public transport (WHO, 2018). Furthermore, other accessibility factors include the existence of protection from discrimination of rights on the basis of disability, policies that refer explicitly to disability rights compared to policies that ignore persons with disabilities; the socioeconomic factors, the factors related to health, education, youth centres services, community-based rehabilitation services, social support services and affordability of services (UNHR, 2014).

According to Lindsay (2014), special needs education learners include persons facing difficulties in learning, developmental disorder, behavioral disorder, inability to look after themselves, communication and interaction problem with people. The primary goal of inclusive education is educating children and adolescents with special needs. It emphasizes special needs learners' participation in local communities, culture, and curricula, while condemning all forms of marginalization. Inclusive education assumes that children with various types of special needs receive customized education in age-appropriate regular courses in local schools in order to meet their unique educational demands.

In Ethiopia, the number of people with disabilities is as high as 17.6 % of the total population (WHO, 2011). The majority of persons with disabilities are unable to obtain services like rehabilitation, support and assistance. The services that do exist are primarily managed by NGOs and frequently concentrate on persons with physical impairments, paying less attention to people with other types of disabilities, like hearing impairments (Ministry of Labour and Social Affairs [MoLSA], 2014). In addition, from the experience of researchers regarding the provision of services for learners with disabilities, there is limited number of services for learners with disabilities in schools. Education of learners with disabilities, at all levels of education including Integrated Primary School level, has also been influenced by different types of challenges (Belay, Fantahun & Missaye, 2015). Environmental barriers, social barriers, educational barriers, cultural barriers, the attitude of the community, economic and practical problems appear to limit the provision of inclusive education services in Ethiopia. It was, therefore, important to see the practices, opportunities and challenges in education aspects for deaf learners at the Integrated Primary School level found in Amhara National Regional State.

The government of Ethiopia has formulated the country's Education Development Roadmap 2018-2030 that aims to reform the education sector in accordance with the national vision and development goals. This led to ensuring fundamental shifts in development to transform the educational system to accord with the requirements of 21st century educational systems that play key roles in transforming the socio-economic systems, particularly the industrialization process that Ethiopia finds itself at the present (MoE, 2018). According to (MoE, 2028), the Education Development Roadmap of 2018-2030 recognises that one of the big difficulties is disparity in the state nation's education system in terms of access to education. To minimize this educational access challenge, Ethiopia has done quite well in terms of meeting universal goals for primary education over the last decade and achieved this universal goal. Based on the effort made by the country in primary education, the net enrolment rate in 2015 was 85.6 %. This net enrolment rate has increased in primary education from 19.2 % in 1994 to 85.6 % in the same year growing at an average annual rate of 8.47%. Major expansion has recently taken place of primary schools throughout the country. Moreover, these days, remarkable progress has been achieved in including children with disabilities. Because of this intention of the government, children who have different types of disabilities are going to regular schools (MoE, 2018).

Due to the implementation of education and training policy and the country's commitment to realise universalisation of primary education, the number of primary schools has increased from 12,089 in 2001/2 to 33, 373 in 2014/15 while the learners' enrolment has shown drastic increment over the same period. Net enrollment rate was raised from 54% in 2002/03 to 94.3% in 2014/15 (MoE, 2018).

Despite these achievements, the efficiency of primary education, learners in the Integrated Primary Schools have faced different types of challenges. Reports depict that access as measured in net enrolment is still a concern in Ethiopia. According to MoE annual abstract of 2014/15, about 1.03 million children of official school age were not in primary education, and even when adjusted, net enrolment (estimated) nearly one million children were excluded from the education system and are considered as out of school children (MoE, 2016).

Regardless of immense improvements in narrowing the enrolment gaps over the last two decades, Integrated Primary Schools still remain in favor of learners without disabilities than learners with disabilities. This indicates that more action is needed to close the enrolment gap between learners without disabilities and learners with disabilities in Ethiopia. Furthermore, it was observed that there is inadequate inclusion of children with special needs as well as absence of any provision for gifted and talented children (MoE, 2016).

The evidences of ministry of education of Ethiopia indicated that skills subjects such as Braille, sign language, leap reading and mobility and orientation skills are not either adequately incorporated or not included for children with special needs, and the curriculum is highly saturated with other academic subjects and contents. The curriculum contributed little to the socialization of learners' behavior and do not strongly advocate about unity with diversity in the primary schools. Co-curricular activities which are instrumental to promote social competence and moral development are not part of the curriculum; poor practice of continuous assessment is noticed in the teaching-learning process; educational facilities and materials are inadequate in most of the Integrated Primary Schools which in turn affected quality of education (MoE, 2018).

According to MoE (2018), in addition to the above mentioned challenges, some of the challenges identified in Integrated Primary Schools include lack of clean and separate sanitation facilities for learners with disabilities, inadequate teaching materials, laboratories and lab chemicals and library, poor physical conditions and unsafe school environment and poor provision and utilization of information communication technology facilities in almost all Integrated Primary Schools.

According to a report by the World Federation for the Deaf (WFD), about 70 million people worldwide are deaf, with 80 percent of them residing in developing nations. Furthermore, the deaf are among the poorest of the poor with little access to education (WFD, 2020). Various problems inhibit learners with special needs education to attain their fullest potential by hindering their full participation. Learners with special needs are encountering multiple barriers in terms of accessing education, stigma by community or community attitude, inadequate specialist teachers and resource centres, shortage of specialised teaching and learning resources and assistive devices, ignorance or unawareness of most people that disability is not inability (MoE, 2018). People with hearing impairment, like other people with disabilities, are less likely to attend school, complete school, and drop out, possess basic skills, and have fewer school year opportunities. Discrimination and prejudice, as well as lack of qualified teachers and educational materials, continue to deny people with hearing impairment the right to a quality education around the world (UN, 2019).

More specifically, deaf learners in the Integrated Primary School have faced different types of challenges in different contexts. Studies consistently revealed that primary school children and the school community have serious sign language skill problems and lack basic skills of communication in sign language, inadequacy of the budget allocated to Integrated Primary Schools, negative attitudes of society towards them, society's unawareness of the potential of deaf

learners, discrimination against deaf learners on cultural occasions, negative attitude of the society towards deaf learners, deaf learners feelings of inadequacy, inferiority, shame and rejection, shortage of resources important for their education, examination delivery problem, and assessment problems are the major challenges in Integrated Primary Schools (Zrigat & Al-smadi, 2012). Furthermore, there has been much research on the integration and interaction of deaf learners with learners without hearing impairment. Tesfaye (2014) found that in the education of deaf learners, teachers in special classes and in regular classes have a negative attitude towards the integration of deaf learners with learners without hearing impairment. Hence, deaf learners and learners without hearing impairment do not interact properly in the regular schools.

A study done in Amhara National Regional State revealed that deaf learners have poor relationships with learners without hearing impairment. Besides, the participation of learners with hearing impairments inside and outside the classroom remains negligible (Tesfaye, 2014). In the Integrated Primary Schools, deaf learners do not get special support from teachers as they are considered as regular learners, and teachers teach and assess them with the same types of teaching and assessment methodologies (MoE, 2018).

Other studies conducted on the education of deaf learners revealed that in the instruction of deaf learners, there is a problem with sign language usage. One of the reasons is SNE teachers and other workers in the Integrated Primary Schools are not capable of using sign language to teach deaf learners (Erbaş, 2017). SNE teachers in the special schools and special classes are more capable and proficient in sign-language communication and developing reading and comprehension in comparison to those in the Integrated Primary Schools or Integrated Classes (Tesfaye, 2014).

Inclusive education has been a goal supported by many countries and their school systems. In recent years, education has moved from a segregated education system to an integrated education system to a point where inclusion is regarded the best way to make available quality teaching all children with or without disabilities (Göransson, Bengtsson, Hansson, Klang, Lindqvist & Nilholm, 2020). The world is focusing on the education of children with exceptional needs, irrespective of their disparities in culture, language, abilities and disabilities together with their peer, in integrated schools (Mihaela and Liviu, 2017). As a result, large numbers of children with disabilities are receiving their instruction together with children without disabilities (MoE, 2016).

To support the inclusion of all children, 'Inclusive Education' is, therefore, an education system that accommodates all learners irrespective of their disabilities to fully participate in teaching and learning (Mitchell, 2014). Inclusive education drives faraway outside the physical location of

learners with disabilities in ordinary classrooms, but schools must be comprised in common but flexible settings and activities addressing the needs of all their learners. (Mitchell, 2014).

Despite the fact that the concept inclusive education has become more international (UNICEF, 2014), its implementation has been inconsistent around the world due to a variety of historical, cultural, social, and financial factors. This has been particularly a difficult idea to implement in developing countries, where resources are scarce and only about 2% of children with special needs receive some form of training. The growing public awareness and technological advancements in several nations paved the way to improve legislations considering children with disability for better education (Michell, 2014).

The key goal of inclusive education is the delivery of instruction and other resources for children and adolescents with special needs (Lindsay, 2014). It emphasises on the presence of special needs learners, families, and flexible curricula, and discourages all types of exclusion. The assumption is that inclusive education means individualised education that offered educational service to learners with multiple challenges in age-appropriate classes in local schools according to their personal necessities and unique instructive needs (Forman, 2013).

Teachers who teach learners with special needs require special skills to adapt teaching to learners with disabilities.

According to Forman (2013) when these learners with hearing impairments attend higher-level classes, the needs they require take a more serious form. Even though the hearing problems of deaf school-children need specialised teaching resources and services to assist them to acquire knowledge efficiently, the learning processes for deaf learners in integrated schools are no different from other learners without hearing impairment. However, deaf learners face different types of challenges other than those with the ability to hear (Sphiwe, Moses and Simeon, 2020). In addition, in comparison to those learners and peers who do not experience hearing disability, learners with hearing disability lag behind in academic achievement (Lindsay, 2014).

In Ethiopia, special schools were the first to deliver instructional supports to learners who have hearing problems. However, there is minimal intake capacity for an insufficient special teaching institution and the number of children with deafness helped in these teaching institutions' leftover minor. According to Alasim (2018), due to these limited access and services, integrated schools were opened to accept deaf learners. These learners were in the same class with those who are not deaf.

Roofe & Cook (2017) state that there is no school system placement program that conducts an entry point assessment to recognise children who require back-up assistance, nor are teaching institutions ready to offer the appropriate provision to meet the needs of deaf learners. Laurent Clerc National Deaf Education Center (2013) articulates that the majority of deaf learners are deprived of appropriate assistance from the education system and most deaf learners leave or drop out of school because of lack of appropriate support.

In Ethiopia, deaf learners experience different types of challenges when they attend integrated schools. They are not properly integrated academically, socially or in different types of support. Many deaf learners fail to communicate that they cannot hear what the teacher or other learners are saying. They may never communicate with their classmates in group work and no special attention is given to them by teachers (Tamrat, 2020). Teaching deaf learners in the integrated classrooms requires dependable information and continuous exertion of the schoolroom educators. In integrated schools and classrooms, if teachers do not actively support deaf learners, their learning will remain problematic. Teachers' lack of support in and outside the classroom can have an undesirable influence on the academic success and communication of deaf learners although they are anticipated to achieve and contribute in classroom events (Asrat, 2013).

The challenge of the integrated education system is addressing the basic needs of both children with and without disabilities. In the integrated schools in Ethiopia and specifically in the focus area of this study, the Amhara Region, regular teachers are requested to teach learners with disabilities without any kind of instruction or administrative help (MoE, 2016). Asrat (2013) states that the real challenges of deaf learners in education could emanate from numerous sources including a rigid school system, confrontation to reform, absence of consistent instructional reform, and fear of trailing one's employment.

According to Ministry of Education Ethiopia, (MoE,2018), there are different types of schooling for all children. The educational scenario of children with disabilities has five categories:

- Special day schools: learners attend these schools during the normal school day. This school accommodates learners with similar disabilities.
- Special boarding schools: in these Special Boarding School, learners with similar disabilities are accommodated. These learners also live on the premises of the school. They are away from their homes. [They are educational institutions where children with the same types of disabilities come together during the day and stay together at night;]
- Special classes in ordinary school: in these schools' learners with disabilities are

accommodated in special class in the ordinary primary school. [environments in which children with disabilities are located;]

- Integrated schools: in these integrated schools both learners with and without disabilities are accommodated in the same class. [in which children with disabilities are completely placed in ordinary classes with children without disabilities in daily classes]; and
- Regular schools: Within this school environment there are learners whose disabilities are not recognised but are accommodated in the regular classroom. [where children with unrecognised disabilities engage with those in ordinary classes].

Efforts have been undertaken to address the specific children's needs in the first four forms of educational settings by providing the required educational assistance and making the necessary educational services available. On the other hand, overcrowding, shortage of special educational materials and facilities, shortage of educators qualified in SNE, and financial constraints is a problem in Integrated Primary Schools (Asrat, 2013).

1.2. STATEMENT OF THE PROBLEM

Ethiopia, as a country subscribes to international conventions and declarations to support learners with disabilities in their education (Tadesse, 2019). The Strategy of Inclusive Education indicates that for learners with unique learning needs, it is possible to teach together with others but need to be given particular support according to their needs (MoE, 2016). According to MoE (2016) educational policies and strategies promote teaching learners in the inclusive education system. The reality on the ground, however, suggests that there is little progress towards implementing these policies whenever it comes to the teaching of children with special needs (Belay, et al., 2015). According to a report published by MoE (2012), in Ethiopia, education is inaccessible to the majority of learners with disabilities. For example, in 2010/11, the national average gross enrolment rate for primary school was 96.4 percent, but the rate for children with disabilities was only 3.2 percent. This means that roughly 96.8% of children with disabilities are still out of school because they are not being supported by the educational system. Not only did children with disabilities have limited access to education, but the quality of education they got was also poor. This is primarily due to a lack of special education teacher training as well as poor school infrastructure and other factors. Deaf learners are among the main groups suffering from lack of access to education.

This research aimed at the assessment of the education of deaf learners in the Integrated Primary Schools of Amhara National Regional State. The focus is on assessing the educational practices,

opportunities and challenges related to physical, instructional, material, service delivery and social circumstances of learners with deafness.

Deafness is one of the sensory impairments that is widely acknowledged as a barrier to education access around the world. Deafness is defined as the complete loss of hearing ability in one or both ears as a result of damage to or deformity of one or more parts of the ear (Tadesse, 2019). The majority of deaf persons have profound hearing loss, which means they have very little or no hearing. They frequently communicate via sign language (WHO, 2014). These persons have a communication challenge because the majority of them are deaf and do not understand sign language, which is their preferred mode of communication. As a result, this study exclusively looked at the educational practices of deaf learners in the Integrated Primary Schools.

Hearing impairment, especially deafness, is well recognized in Ethiopia as a main factor for many children not to access education. The enrolment rate and literacy achievement of deaf children is far below the average for the population at large (CSA, 2015). Illiteracy and semi-liiteracy are serious problems among deaf people. In the absence of strong educational and language basis, deaf people face a lot of challenges to successfully interact in today's communities and marketplaces and in the world of technology and information and to become independent, employed, and contributing citizens of a nation (Degnesh, 2016).

Ethiopia's government passed the Special Needs/Inclusive Education strategy to ensure that education is available to all of the country's citizens. As a result, a growing number of national policies and laws have begun to address the issue of learners with disabilities, including deaf learners (MoE, 2016). One of the efforts taken to increase access for children with disabilities was to implement inclusive education. In this setting, children with hearing and other disabilities (including deafness) are allowed to attend regular classrooms alongside learners without hearing impairment (Tadesse & Dawit, 2019). Inclusive education policies recognize all children as complete members of society and respect all of their rights, regardless of age, gender, ethnicity, language, poverty, or impairment. Inclusion means removing barriers that prevent people from expressing their rights, as well as creating supportive and safe environments (MoE, 2018).

The issue of integrating deaf and hard-of-learners in educational programs with their peers without hearing impairment and the placement option of deaf learners is still debatable and the debate remains a contentious issue across the globe (Asrat, 2013, Webster, 2017, Boyle et al., 2020, Paul, 2020). Proponents of integration believe that it helps deaf and hard of learners without hearing impairment improve their academic performance and social development (Alshutwi et al., 2020), whereas proponents of segregation believe that "general education classrooms are not

necessarily the most appropriate placement for learners with hearing impairment" (Dalebout, n.d.). Dalebout, n.d.), also suggests that making placement decisions on individual basis "is in the best interest of learners with hearing impairment". Integration opponents argue that it might pose problems with language, communication, social normalization, and cultural identity (Belényi, 2014). Some of them believe that when a hearing learner is placed in a class with learners without hearing impairment, he or she is often the only learner in the class with hearing problems, which can lead to social isolation (Aldrich, 2016). Many supporters of inclusive education, on the other hand, think that isolating deaf and hard of hearing learners from learners without hearing impairment can lower their self-confidence and make them unable to communicate (Lesar & Vituli, 2014). Some supporters of inclusive education also believe that integrating deaf and hard of hearing learners with learners without hearing impairment and assigning them common activities to work on in groups is preferable (Lesar & Vituli, 2014).

The government, educators, parents, and deaf and hard of hearing learners themselves may all have differing perspectives on inclusion (Chupina & Warick, 2020). It also varies from country to country; therefore, there have been differing viewpoints on what constitutes inclusion in education (Lauchlan & Greig, 2015). From the socio-cultural perspective, the best place to educate children with any special need including deaf is an inclusive setting. There is better achievement in academic performance and social development for children who are in inclusive environments, deaf and hard-of-hearing (Ayantoye & Luckner, 2016; Millen, Dorn & Luckner, 2019).

In order to avoid social exclusion and discrimination among learners, inclusive education has become a policy direction to include learners with learners without hearing impairment in the same classroom. Deaf learners attend one class with learners without hearing impairment and continue their learning based on the existing curriculum in inclusive education. It is believed that both learners without hearing impairment and learners with hearing impairment feel more connected and have better social interactions as a result of inclusive education (Gezahegn, 2013). Despite these assumptions of social belonging and togetherness, deaf learners in Integrated Primary Schools face a variety of academic, social, and instructional problems, as well as a scarcity of resources in the teaching-learning process and receiving specific support services. Compared to learners without hearing impairment, hard of hearing learners lack academic achievement and ability to go to the next level (Sentayehu, 2015). Despite these obstacles, deaf learners continue to be included in Integrated Primary School courses alongside their learners without hearing impairment.

It is expected that deaf learners' perceptions of the benefits of social and academic skill development would change as a result of inclusive education, in which deaf learners are included in classrooms with other learners. It is a wonderful thing that integrating deaf learners into regular classes resulted in certain learning improvements for deaf learners. Even though deaf children face different challenges that prevent them from enrolling in school, the integration practice has maintained and is being practiced in some selected integrated schools. Hence, the main concern of this study was therefore to assess the academic practices, opportunities and challenges of deaf learners in the Integrated Primary Schools (Degnesh, 2016).

In an inclusive classroom, all learners are integrated regardless of their physical, intellectual, emotional, social, linguistic, or other needs. The goal is to make education more accessible to children with various disabilities (Sentayehu, 2015). Inclusion may not necessarily be the most beneficial option for deaf and hard of learners without hearing impairment unless it is applied according to international recommendations with the availability of the necessary accessibility services, assistive devices, physical settings, equipped classrooms, specialized interpreters, and appropriate teaching materials (Layton & Borg, 2019). The situation can be more complex and attitudes towards inclusion may change whenever the resources and facilities are lacking and very limited (Allothman, 2014). Shortage of quality skilled educators, who know sign language, who are qualified in special needs education and who are specialized interpreters to help the deaf and hard of learners without hearing impairment in Ethiopia is still a significant problem in Integrated Primary Schools (Asrat, 2013).

Inclusive education is an approach to schooling in which learners with different kinds of disabilities and learning needs are educated in classes with learners without disabilities. In an inclusive arrangement, learners who need additional supports and services spend most of their time with their peers, learners without disabilities rather than in separate classrooms or schools. In an inclusive classroom, there is a strong emphasis on trying to meet the diverse learning needs of all learners without removing them from the classroom (Suzanne, 2015).

Inclusive education is a system of education that welcomes and helps all learners to learn regardless of who they are, their talents, or their needs. This entails ensuring that instruction and curriculum, school buildings, classrooms, play areas, transportation, and restrooms, are suitable for all children at all levels. All children learn together in the same schools in inclusive education. Inclusive education entails overhauling the entire educational system, including legislation, policy, financial issues, administrative matters, design of buildings, provision/delivery approaches, monitoring systems and school organization (UNICEF, 2017). According to UN

(2019), the primary goal of inclusive education is educating special needs children and adolescents. Inclusive education emphasizes special needs learners' inclusion in local communities, culture, and curricula, and discourages any forms of exclusion.

Inclusion in education is based on the principle that all children, regardless of differences or disabilities, should learn together. Inclusive education is based on the belief that all learners have unique qualities, interests, talents, and learning requirements and those learners with special needs should have equal access to and receive individualized accommodations in the general education system (UN, 2018). According to Janet (2012), inclusion implies transition from separate, segregated learning environments for persons with disabilities reflected in the “special education” approach, to schooling in the general education system. Effective transitions from special education approaches to inclusive education requires careful planning and structural changes to ensure that learners with disabilities are not placed within the regular or mainstream school system without the appropriate accommodation and supports that ensure an inclusive learning environment.

In an inclusive setting the education system is responsible for incorporating learners with deafness in general schools and providing them with all the facilities, resources and support they need to encompass specialised teaching and help them reach their potential. However, the idea of inclusive education seems to be a major challenge in many countries (UNESCO, 2020). So, whilst learners with deafness are increasingly being educated in the general school environment, this process of inclusive education for deaf learners is a complex task which poses a lot of challenges for both practitioners and researchers (Tadesse, 2019). For example, on the ground, the successful implementation of inclusive education for deaf learners is dependent on the positivity, knowledge, skills and experience of principals, teachers, and parents. Their perceptions, attitudes and judgments play a part in ensuring the success of inclusive education practices in schools.

In Ethiopia, the movement towards placing all special needs learners in inclusive learning environment with learners with disability and without disability has been described as one of the most important issues in the Ethiopian Education Development Roadmap (2018-30) MoE (2018). The roadmap underscored the need to provide an inclusive education service that is available to all learners with disabilities and without disabilities irrespective of deprivation, sex or gender, racial origin, linguistic, education challenges and disabilities in the same school environment. In addition, the Education Sector Development Programme-V gave outstanding consideration to the use of the same school setting to educate all children regardless of their differences (MoE, 2018). The current practice of Amhara National Regional State Education

Bureau shows that different primary schools in the region have started to admit children with different special needs in the same setting for educational purpose.

In Ethiopia, large number of children, adults and elderly people with disabilities are affected; comprising high proportion of the population and the majority of these populations were living in rural areas where there are not educational and other accessibilities (WHO, 2011). According to the 2007 Population and Housing Census of Ethiopia, there were 805,492 people with disabilities; out of which 27,288 were deaf and 37,632 were hard of hearing. Most of these people are children and young (Central Statistical Agency, 2012; Sentayehu, 2015).

Hearing impairment is well-known all across the world, but especially in Ethiopia, as a major factor in many children's inability to attend school (Central Statistical Agency, 2012). Deaf children's enrollment rates and reading levels are significantly lower than the general population. Deaf persons have major challenges with illiteracy and semi-literacy. It is impossible to flourish in today's communities and marketplaces, as well as in the world of technology and information, without a strong educational and language foundation (WFD, 2012). According to a report published by the Ministry of Education in 2012, education has remained unavailable to the majority of learners with impairments. For example, in 2010/11, the national average gross enrolment rate for primary school was 96.4 percent, but the rate for children with disabilities was only 3.2 percent. This means that roughly 96.8% of children with disabilities are still out of school because they are not being supported by the educational system. Not only did children with disabilities have limited access to education, but the quality of education they got was also poor. This is primarily due to a lack of special education teacher training as well as poor school infrastructure and other factors. Deaf and hard of hearing learners are the main ones that suffered from access to education (MoE, 2012).

Ethiopia's government published the Integrated School Policy in 2006 to address the issue of limited access to education and to make education more accessible to children who are deaf or hard of hearing. As a result, the challenges of learners with hearing impairment are steadily becoming more prominent in many national policies and legislations (Sentayehu, 2015). Integration involves the acknowledgment of all children as equal members of society and the protection of all of their rights, regardless of age, gender, ethnicity, language, poverty, or impairment, from the outset as a policy direction to provide education to all. Integration entails the removal of obstacles that can obstruct the exercise of these rights as well as the construction of supporting and safe settings (MoE, 2018).

In an integrated classroom, all learners are accommodated regardless of their physical, intellectual, emotional, social, linguistic, or other needs. Also, integration is a government-led reform plan aimed at integrating learners with all types of disabilities into inclusive schools. The integration was centered on making education accessible to children with a variety of disabilities, including hearing impairment (Sentayehu, 2015). To implement inclusive education successfully, school curriculum, teaching techniques, organization, and resources must be modified to guarantee that all learners, regardless of ability, can participate successfully in integrated classrooms. Learners with hearing disability, on the other hand, face unique problems in an integrated classroom, despite considerable progress. Learners with hearing impairment, like other learners with disabilities, are unable to communicate effectively with other learners without hearing impairment, and their academic progress is not comparable to that of others. The school curriculum, instructional methods, organization, and resources are not organized in the way that it should be for an integrated classroom (Asrat, 2013).

Regarding the education of deaf learners and related issues, several studies have been conducted. With inclusion as a primary concern, some researches have been conducted in various parts of Ethiopia where the socioeconomic context differs from that of this study area, such as teacher perceptions of inclusion, challenges of implementing inclusive education, and challenges of implementing inclusion of learners without hearing impairment and learners with hearing impairment (Asrat, 2013). These findings revealed that deaf learners face a number of challenges including an awareness gap and a lack of commitment; the teaching-learning process continued with a regular teaching approach that did not take into account the special needs of deaf learners; and deaf learners were not supported by special needs education experts. As a result, deaf learners are unable to compete with their learners without hearing impairment.

In addition to the above-mentioned researches, Yabbi (2013) conducted research that focused on the socio-economic and cultural challenges in relation to performance of deaf children in schools. Asrat (2013) explored the interrelationship and involvement of learners with hearing impairments in the regular classroom atmosphere with their teachers and learners without hearing impairment in Debre Markos City found in Amhara National Regional State. The learners with hearing impairments had poor contact. The engagement in sports within and outside the classroom of learners with hearing impairments is negligible. Authorities accountable for learners with hearing impairment do not have enough contextual information in the SNE and do not have an inventiveness to offer specialised assistance to these learners. In relation to this, Asrat (2013) focused on the assessment of the relationship of deaf learners only with their teachers and learners without hearing impairment using a qualitative approach. Therefore, there is a gap in that their

social interaction, their educational opportunities and challenges among learners with hearing impairments appears to have been ignored.

Another study conducted by Wondwossen (2014) at Mekanisa School for the Deaf people found in Addis Ababa also discovered that deaf learners come across some social communication problems in the inclusive school settings. The social problems of learners with hearing impairments are related to the formation of friendships with learners without hearing impairment, communication barriers with parents and, to some extent, with teachers; and learners without hearing impairment mainly attributed to a lack of ability on the part of parents, teachers and learners without hearing impairment to communicate using sign language. Wondwossen (2014) identified the absence of sign language as a major factor affecting the interaction of learners with hearing impairments.

Even though integration is a policy concern for children with special needs, there are still a lot of challenges in its implementation, and the satisfaction of learners with hearing impairment is under question (MoE,2018). Integrated schools currently admit and teach learners without hearing impairment with deaf learners together regardless of their differences (Tadesse, 2019). However, deaf learners' academic practices, opportunities, and challenges in Amhara Regional State has not been investigated at Integrated Primary School level. Deaf learners in Amhara National Regional State Integrated Primary Schools face challenges of different types that affect their academic and social life during their schooling. From the researcher's experience, learners with hearing impairments face communication difficulties with learners without hearing impairment, teachers and school administrators. Deaf learners have social interaction problems because of their hearing impairments in the regular classroom setting and have problems in partaking in dissimilar actions in the classroom, throughout play period, in social events and other extracurricular activities.

Additionally, while the aforementioned studies attempted to touch on some aspects of inclusive education in one way or another, they did not focus on the academic practices, opportunities, and challenges of the study's primary target population (deaf learners). None of these studies were carried out in the area where the current study has covered. Again, deaf learners lag behind in academics as compared to learners without hearing impairment on account of their problems in communication, socialization, curriculum adaptations and modifications and above all sign language interpretation. These problems take a more severe form when these learners with hearing impairment join their education in the Integrated Primary Schools beyond grade five. Taking the sensitivity of the issue into consideration, the researcher conducted this study to investigate the academic practices, opportunities and challenges faced by deaf learners in integrative school

setting at primary school level. As a result, the goal of this study was to look into the academic practices, opportunities, and challenges of deaf learners in Amhara National Regional State's Integrated Primary Schools.

1.3. AIMS AND OBJECTIVES OF THE STUDY

1.3.1. Research Aim

The aim of this study was to assess the educational needs of deaf learners in the Integrated Primary Schools of Amhara National Regional State.

1.3.2. Research Objectives

The following objectives were formulated.

- To evaluate the practices of Integrated Primary Schools when teaching deaf learners.
- To determine how deaf learners are accommodated in the Integrated Primary Schools.
- To identify the challenges deaf learners, face in the Integrated Primary Schools.
- To provide suggestions to minimise the challenges and maximise best practices and opportunities for deaf learners in the Integrated Primary Schools.

1.4. RESEARCH QUESTIONS

This research assessed the educational needs of learners with deafness in the Integrated Primary Schools of Amhara National Regional State. The study predominantly focuses on educational practices, opportunities and challenges of deaf learners in the Integrated Primary Schools. Therefore, this research attempted to explore whether Integrated Primary Schools in Amhara National Regional State are responsive to deaf learners or not.

To this end, the following research questions were formulated.

Primary research question

- What practices do Integrated Primary Schools use when teaching deaf learners?

Secondary research questions

- What opportunities are available for deaf learners in the Integrated Primary Schools?
- What challenges do deaf learners face in the Integrated Primary Schools?
- What strategies can be used to minimise the challenges, and maximise the performance and opportunities for deaf learners in the Integrated Primary Schools?

1.5. REVIEW OF RELATED LITERATURE

1.5.1. Location of the Research Area

The present research was conducted in Ethiopia, which is located in the North Eastern part of the African continent known as the “Horn of Africa.” Ethiopia is bordered by Sudan and South

Sudan to the west, Eritrea to the North, and Djibouti and Somalia to the east, and Kenya to the south. It is the second populous country with in Africa having more than 80 ethnic groups that is estimated to be 110+ total population size. Ethiopia has eleven regional states and two city administrations. The eleven Ethnic Provincial States are Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations Nationalities and Peoples, Gambella, Harari, Sidama, and South West Ethiopia, and the two city administrations are Addis Ababa City and Dire Dawa City Council (Bahiru, 2007).

According to the Ethiopian Economic Association (EEA) report in 2020/2021, from 2007/08 to 2017/18, Ethiopia's economy experienced solid broad-based growth of 9.9 percent a year on average. In 2017/18, real gross domestic product (GDP) growth in Ethiopia decelerated to 7.7 percent. Much of the increase was due to manufacturing, mainly construction and services (EEA, 2021). In 2017/18, agriculture and manufacturing made lower growth contributions relative to the previous year. Investment by the private and government organisations, with the latter playing an increasingly important role, explain demand-side growth. Strong developments in poverty reduction have contributed to higher economic growth in urban as well as pastoral and agricultural parts. From 30 percent in 2011 to 24 percent in 2016, the proportion of the population living below the national poverty line dropped. The second phase of its Growth and Transformational Plan (GTP II), which will run until 2019/20, is being implemented by the government. The goal of GTP II is to continue upgrading the physical infrastructure through public investment and to turn the country into a hub for development. GTP II targets annual GDP growth of an average of 11 percent, in line with the production plan, and the manufacturing sector is expected to expand by 20 percent on average, generating more employment (World Bank, 2019).

1.5.2. History of Education in Ethiopia

According to Mengistie (2020), Ethiopia has its own distinctive calendar, orthography, number system, art, music, and poetic forms. This seems to have laid a foundation to establish traditional education for the purpose of transmitting these cultural heritages to the next generation. It is believed that traditional education in Ethiopia could take two forms. One is indigenous education and the other is religious education.

The indigenous kind of education in Ethiopia was responsible for the socialization of the children and cultural development, for the illumination of a person's mind and thinking, for the development of human personality (Melesse & Bishaw, 2017). As a result, the goal of indigenous education in Ethiopia has been to develop good personality, to equip children with

the ability to respect and meet social and cultural norms. Religious education has also been introduced into Ethiopia as a result of the introduction of several religions. Traditional church education, Quranic education, and missionary education are the three types of religious education available in Ethiopia. These religious education foundations were key influences in shaping Ethiopian education's philosophy of teaching children in the society's beliefs and social values (Aweke, 2015).

The church education system in Ethiopia is supposed to originate from the sixth century B.C., which corresponds to the time when the Axumite kingdom utilized the Sabian alphabet. The church, however, does not become an official indigenous institution of education until the beginning of the fourth century A.D., at which time King Ezana accepts Christianity (Mengistie, 2020). In the beginning, three languages were used in the church education system: Sabaeen, Greek, and Geez; but, after a few years, Ge'ez has become the main language. The major goal of Ethiopian Church education was to teach Christian teachings and to produce church men, such as priests and deacons, for use in church services (Melesse & Bishaw, 2017).

The Ethiopian Orthodox Tewahido Church had dominated Ethiopia's educational history for several centuries before the secular education system was introduced in the early 1900s. After the 1900s, an effort to transition from conventional to new forms of education began. Trying to introduce reform to new, secular forms of conventional educational models was not an easy task as there were significant hurdles, the challenge for previous secular rulers. It is attributable in particular to the traditional mindset of the leaders and nobles of the Ethiopian Orthodox Tewahido Church (Alemayehu, 2012).

Traditional Quranic education is the other type of religious education in Ethiopia. The major goal of the Quranic School was to teach Islamic beliefs. The Quranic School had both primary and secondary levels of learning. Learners at Quranic School's elementary level have been learning Arabic reading and writing. Contents such as the instruction of Islamic Canon Law (Fith), Arabic grammar (Naheu), and commentaries (Tefsir) have been offered at the next higher levels of learning (Mengistie, 2020).

The instruction and evaluation procedure are similar to that of traditional church education practices. Unlike traditional Christian education, most Quranic schools are not affiliated with mosques; rather, they are found in a Muslim community by a teacher known as a "Sheik" who is well-versed in Islamic beliefs. The "Sheik" survives on the gifts of his parents, which he receives after his children's complete various levels of Quranic study (Aweke, 2015).

Missionaries had a significant educational influence on Ethiopian educational practices. European missionaries have played an important impact in Ethiopia's education system since the second half of the sixteenth century A.D. This was the time when Portuguese explorer Christopher de Gama arrived in Ethiopia with an expeditionary force to aid Emperor Libne Dingil, whose country had been entirely conquered by Ahmed Grang (Mengistie, 2020).

Modern education in Ethiopia was started during the reign of Emperor Menelik II (1889-1913). Menelik II was so convinced about the importance of modern education for the Ethiopian people. As a result, he issued the first education proclamation in 1906 (Mengistie, 2020). He strongly believed that modern education was crucial to build Ethiopia as a contemporary nation and the reinforcement of established political influence. Menelik II therefore opened the first modern school in Addis Ababa in 1908, noticing the shortcomings of traditional schools to meet the demands of the modern world and recognizing the need to advance the country (Alemayehu, 2012). He thought the country's independence required a literate population that was proficient in different foreign languages. French, Italian, English, and Arabic were among the foreign languages introduced during his reign (Alemayehu, 2012).

The opening of the first modern school in 1908 had various objectives. The first goal was to start educating people to ensure the country's stability, rebuild the nation, and enable the country to be as a prodigious state in the community of nations. The second objective was to produce administrators, interpreters and technicians. The third objective was to learn various languages. As a result, the program contained language courses such as French, Italian, Arabic, Geez, and Amharic. There were also courses of religion, mathematics, law, and calligraphy. The growth and development of science and technology was valued during the reign of Menelik II, who gave due emphasis to vocational curricula (Alemayehu, 2012).

The Ethiopian education system was mainly affected by the French education system and its curricular elements, such as the educational aims, the material or courses to be taught, the structure and management of schools, and the method of assessment. The application of French teaching methods to Ethiopian learners has raised some issues. The assessment methods used during this period, for instance, were strange to Ethiopians. In addition, the monarchy relied on a non-native-Ethiopian curriculum that did not take into account local particularities (Alemayehu, 2012). The aim of education during this time was to produce Ethiopians who are knowledgeable in European languages as thought to contribute for maintaining sovereignty of the country, to keep the ruling elite for better contact with the outside world and to make the elite competent in court affairs and in defining law articles. In order to realize these purposes of education, French

(the then medium of instruction), English, Italian, and Amharic as well as mathematics, science, physical education, and sports were part of the curriculum (Mengistie, 2020).

The death of Menelik II in 1913 slowed down to Ethiopia's efforts to advance modern education (Mengistie, 2020). Emperor Haileselassie's ascension to power (first as a regent and heir to the throne in 1916, then as emperor in 1930) was a watershed in Ethiopian modern education. The emperor founded Teferi Mekonen School, the second government school at the time after Menelik II School, and it began providing modern education in 1925. The emperor, like Menelik II, had to overcome conservative resistance in order to launch this school. Even though most of the education was in French, there were two main streams of media of instruction: French and English, but English began to take over it since Menelik II came to power. French was dominantly used medium of instruction until English began to substitute and take the role in 1935. In the period of Haileselassie and Menelik II, French, English, Arabic, mathematics, chemistry, and physics, history, geography, gymnastics, and sport, as well as Amharic, were all part of the curriculum. The majority of the teaching staffs were from French and Lebanese. Minority of them were Ethiopian who had been teaching Amharic and beginning level French (Mengistie, 2020).

It is during emperor Haile Selassie regime that Ministry of Education and Fine Arts founded steps to produce educated leaders for good governance and the development measures. During this time, taken by then were, allocating funds for education issuing orders for troops to learn to read and write, and for clerics to produce youth having good character (Mengistie, 2020). Furthermore, in various parts of Ethiopia, Emperor Haileselassie opened new schools and extended modern education. Typically, schools are named after those who founded them to reflect their political power. As a continuation of the method of Menelik II, the schools concentrated about religious philosophy, arithmetic, law, and calligraphy instruction. It was also throughout this time that Empress Menen, wife of Emperor Haileselassie, founded the first school for girls in 1931. This seems to be the initial effort to practice gender equality in education. The success of the Ethiopian education system was not anticipated, and the lack of focus on vocational education, lack of materials, unfamiliar curriculum and instruction and educational content, and untaught and incompetent educators have been criticized. The schools also had a leadership contest. Though decision-makers were made up of emperors and consultants from abroad, there were no district-level administrators and directors responsible for taking care of schools and maintaining contact processes between schools and decision-makers (Aweke, 2015).

The efforts of Emperor Menelik II and Emperor Haileselassie I to expand modern education in Ethiopia were disrupted by the Italian occupation from 1935 to 1941. That is, the functioning of education was suspended for 5 years, and the hiatus extended for some years after liberation until the state machinery could be reassembled and the schools reopened (Ibid.). In the invasion time of Italian, the textbooks were written in Italian and based on their culture. Policies have opposed equal education opportunities and have instituted rigid school segregation, with Italians and Ethiopians in separate schools. For Ethiopian nationals, education was restricted to Grade 4, while Italians were provided schooling equal to the learners of their home country. During this era, there was neither a clear and organized curriculum nor a systematic assessment process in schools (Alemayehu, 2012).

The education system underwent a period of reconstruction (1941–1955) after the liberation of Ethiopia from the Italian occupation in 1941. The government of this era often claimed, like that of previous regimes, that the freedom of the nation could be guaranteed by its educated people. As a result, the effort to modernize education began again across the country. Subsequently, the government encouraged the development of education; schools opened and started in urban centres of the country. In addition, a gradual advancement in curriculum creation took place during this period. In 1947/48, the first structured written curriculum was published. Later on, the basis of the perceived interests of the ruling class, the framework of the education system was modified. A total of seven revisions were made between 1948 and 1968, after the development of the first curriculum. The curriculum components were copied from other countries and were not focused upon Ethiopia's economic, social and cultural realities. Primary education textbooks were translated from other languages without the Ethiopian situation being represented. High school syllabus was based on the Leaving Certificate Examination by the London School. Furthermore, since books and other educational materials were scarce, there were inadequate methods and tools used for teaching in the classroom. (Alemayehu, 2012: 58).

The goals of Ethiopian education in the post-war period were generally different from those in the pre-war period. Foreign language instruction was the primary goal of Ethiopian education throughout the pre-war period. Opposing to this belief, the post-liberation period demonstrated that language instruction was insufficient for modern administration, as the growth of the governmental bureaucracy and the modern sector necessitated qualified civil servants, trained professionals, and technocrats in fields other than languages. Thus, the education system of Ethiopia prior to 1950 was aimed at fulfilling the objective of providing the leadership that was necessary after the restoration (Mengistie, 2020).

The new government known as “Derg” came to power by throwing Emperor Haile Selassie in 1974 through coup. Derg considered education as a key to national development, mainly to manifest the socialist ideology, and as a result adopted a new education policy. This view was charted out in the National Democratic Revolution (NDR) in 1976, further elaborated in the five-volume policy document known as General Directives of Ethiopian Education produced by the Ministry of Education in 1980 (Mengistie, 2020). Between 1974-1991, the Derg Government initiated another improvement in Ethiopia's educational history. The fundamental political philosophy of the government was socialism, and education was conceptualised as a significant means of gaining political influence. During the Derg Regime, the curriculum was highly politicised. As a result, learners were required to take courses in political education system. Several factors affected the education system of the. These variables included the deep determination and commitment of the Derg government to spread communist philosophy and the instructional production grounded on the theory of the education structure in Eastern Europe (such as East Germany, Bulgaria and Hungary). The overall education system was thus targeted at achieving communist ideology (Alemayehu, 2012: 63).

In the Derg Regime, some basic goals of educational framework were:

- eradicating illiteracy by supplying the masses of the public with universal education;
- providing education to help people grow their social awareness and take part in the struggle for class;
- encouraging learners to study and have radical societies in order to comply with the ideals of spiritual and disciplinary socialism, using the philosophies of Marxism and Leninism;
- providing training to enhance scientific research and practice so that learners can combine theory with practice, understand their surroundings and the society in which they live, and
- conducting training that liberated the people by generating manpower trained in various professional disciplines from primitive production systems (Alemayehu, 2012).

Prior to 1974, in the provision of schools and universities, Ethiopia had an annual rate of illiteracy well above 90 percent and compared poorly with the rest of Africa. Emphasis was put on raising literacy in rural areas after 1974. Practical participation was stressed, as with the teaching of socialism. The system of education has shown a major expansion afterwards but access to primary schools was mostly restricted to urban areas, where schools were predominantly non-governmental or religious organizations. By 2015, the rate of literacy had

risen to 49.1% (Aweke,2015).

When the Derg Regime was overthrown, a new education and training policy was developed by Ethiopia's transitional government (1994). The strategy covers overall and relevant goals, implementation methods from kindergarten to higher education and special education, including formal and non-formal education. It emphasizes the creation of problem-solving capacities and culture in education material, curriculum structure and approach, with an emphasis on acquiring scientific knowledge and practice (MoE, 2018). Ethiopia's education system has four tiers. These are pre-primary, primary, secondary and tertiary. Pre- primary schools educate children from 3 to 6 years of age; there are two cycles of primary school education: grades 1 to 4 and grades 5 to 8; there are two cycles of high school education: grades 9 to 10 and grades 11 to 12; and tertiary education consists of colleges teaching diploma-level learners and universities teaching bachelor, master's and doctoral- level learners (Eyasu, 2016).

In January 2016, the Ministry of Education (Education Strategy Centre) developed a concept note to reform the education sector in accordance with the national vision and national development goals. Based on this, the new Ethiopian Education Development Roadmap (2018-30) is developed and now the education system is guided by this education policy (MoE, 2018).

1.5.3. Disability in Ethiopia

In Ethiopia, there are large number of people who have different types of disabilities. From these large number of people with disabilities, 95% of them live below the poverty line and like the other population of the country, 84% were projected to live in rural areas and have restricted access to basic facilities (MoLSA, 2016).

Ethiopia has ratified and accepted the 2010 UN Convention on the Rights of Persons with Disabilities (UNCRPD) which contains numerous chapters and articles relating directly or indirectly to the services that should be provided for persons with disabilities. To mention, Special Needs Education services of preventive, curative, emergency care and rehabilitative health services, expansion of social security services, and financial services. Despite government efforts and campaigns by national and international non-governmental organizations, there is still a clear need to engage with people with disabilities. This is to ensure their complete participation in all facets of society and to work more closely with various stakeholders (MoE, 2018).

1.5.4. Inclusive Education in Ethiopia

Education is supposed to increase the respect of democratic values of equality and human rights. As a fundamental human right, education is seen as one of the main factors of reducing poverty

and improving socio-economic conditions. Education is all about people being able to learn what they need and want throughout their lives, according to their potential (Naziev, 2017). In Ethiopia, schooling for learners with special needs is evolving at a rapid rate due to educational and legal changes in the country. In most cases, these changes might have its own contribution in giving access to education for people with disabilities. Currently, inclusive schools for the children with special needs are increasing in number gradually. These nationwide movements toward opening integrated classes in regular schools are part of the inclusive education movement and the result of the expansion of the inclusive education program (MoE, 2012).

Inclusive education is an education system that is open to all learners, regardless of economic status, gender, ethnic backgrounds, language, learning difficulties and impairments. Inclusive education is about identifying barriers that hinder learning, reducing or removing these barriers in schools, vocational training, higher education, teacher education, education management, and work places adjusting learning environments to meet the needs of all learners (UN, 2018). The Ethiopian Constitution accepts the international declarations and convention, and states education as human right. In line with the international declarations, conventions and policies, it establishes the universal right to education, emphasizes the need to allocate resources and provide assistance to disadvantaged groups (ILO, 2013).

In accordance with the constitution, the Ethiopian Ministry of Education Education Development Roadmap (2018-2030) directs implementation and development toward inclusive education, or education for all, and declares that "extension of quality primary education to all citizens." This roadmap illustrates that, education is not only a right for citizens, but also a guarantee for growth and development of a country. In this educational roadmap, inclusive education, the universalisation of primary education, the expansion of secondary and higher education, as well as provision of quality education for disadvantaged groups are given special attention (MoE, 2018).

Inclusive education is focused on the premise that schools and the system are prepared to admit learners with disabilities to regular schools and are responsible for meeting the educational, social, psychological and communication needs of learners with disability. In Ethiopia, the trend on the way to inclusive education is grounded on the premise that teachers are trained and accountable for fulfilling their needs to include learners in daily classes (MoE, 2012). It can be argued that inclusive education is a combination of pedagogical and philosophical practices that promotes education for all. In this instance, the procedures guarantee the promotion of social

cohesion, educational rights, a sense of belonging, and classroom learning for all students alongside their classmates (Skogen, 2015). The goal of inclusion is to improve everyone's quality of life, not just those with disabilities, in terms of their participation in and sense of belonging to society and the educational system (Buli-Holmberg, 2015). However, the challenge of reaching a consensus on the inclusive education concept is essential to its practical application. Poor awareness of the notion of impairment, discriminatory attitudes towards people with disabilities and increased resistance to change is main barriers to inclusive education among others (MoE, 2012).

In Ethiopia, the total number of learners with hearing impairment in primary school (1-8) was 10,412, in high school (9-10) it was 391, and in secondary school (11-12) it was just 67, according to the data obtained in 2009/10 (MoE, 2012). The MoE has implemented an SNE strategy with respect to the provision of services within the current system and the inclusive education environment. The purpose of the strategy is to ensure that disadvantaged children, particularly children with disabilities, have access to and receive quality education (MoE, 2012). These issues were also emphasized by the General Education Quality Improvement Programme and integrated into the teacher development component. Therefore, the teacher training curriculum was primarily developed for the training of SNE teachers (MoE, 2018).

1.5.5. Educational Services for Children with Disabilities in Ethiopia

With the introduction of Christianity to Ethiopia, church education took the role of cultivating children with visual impairment, physical disability and those who are gifted and talented. Hence, before the introduction of western education, the country has a long history of church education (Eyasu, 2016). In the history of Ethiopian church education, people with disabilities had a convincing role in taking part of scholastic voyage. Additionally, it is remembered that, people with visual and other physical impairment were interested in the religious education made available by the Church (Fikru, 2013).

Special education program in its modern type was started in Ethiopia in 1925. Before this period, as it is mentioned above, people with disabilities were attending traditional church education. Such individuals also work in the religious education system as teachers. In Ethiopia, modern schooling for children with disabilities began in 1910s. In 1960s and 1970s, special schools for the deaf in Ethiopia were founded with the help of American and European missionaries and NGOs (Temesgen, 2014). Ethiopia's first special school for the deaf, i.e Mekanisa Deaf School, was found by the Church of Christ in 1962 (Tadesse, 2019). The Alpha School for the Deaf was the second deaf school founded by the American Emanuel Baptist Mission in 1967. Hosanna School

for the Deaf was the third special deaf boarding school founded by the Church of Mekanyesus in 1981, and the fourth deaf school, African Outreach, was opened in 1987 (Alemayehu, 2012).

According to Alemayehu (2012), persons with hearing impairments are not readily accommodated in schools. There are a variety of issues facing children with hearing impairments in their education: the society has negative views of the causes of disability, the capacity of children with disabilities, the benefits of general education and in general, the solutions for children with disabilities. Society finds people with disabilities to be physically insufficient, with a restricted ability to learn, live independent lives and participate in social interaction (Tadesse, 2019).

1.6 METHODOLOGY

The study used a descriptive research design. This was used because the study aimed to comprehensively describe the existing educational practices of deaf learners in the Integrated Primary Schools of Amhara National Regional State. The researcher used both qualitative and quantitative approaches to analyse the data in this study.

In order to obtain the necessary data for the study, samples were selected from deaf learners, teachers and principals in purposively selected Integrated Primary Schools. Data gathering instruments such as a questionnaire, interview, and observation were used, and the data was collected from November–January 2018. The quantitative data collected through questionnaires was applied to the Statistical Packages for Social Sciences (SPSS) and analysed using descriptive statistics (frequencies, percentages, means, standard deviations and one sample t-tests). Data gathered from interviews and observation items was analysed qualitatively.

The research methodology and research paradigm of this study was based in the interpretivist paradigm. The interpretive paradigm allows a researcher to look at the world via the respondents' perspectives and views and to create and analyze their understanding from data collected (Maree, 2016). Interpretivism helps researchers to investigate their culture through analyzing people's perception. Interpretivism is inclusive since it accepts several points of view from various classes of different people in which it typically tries to understand a given context. The interpretive paradigm's central assumption is that truth is socially constructed (Creswell, 2014). Based on the above realities, this research required to discover the educational involvements of deaf learners in the Integrated Primary Schools by collecting data from deaf learners, teachers and principals.

1.7 SCOPE AND LIMITATION OF THE STUDY

1.7.1 Scope of the Study

Conceptually, this research was primarily concerned with assessing the educational practices, opportunities and challenges of deaf learners in the Integrated Primary Schools of Amhara National Regional State. The study was thus limited to Integrated Primary Schools of Amhara National Regional State. Geographically, Amhara Regional State is found in the northern part of Ethiopia. The populations under investigation were all deaf learners, deaf learner teachers and principals. The reason for selecting this region was due to nearness for the researcher to minimize travel cost and to save time. Furthermore, the Amhara National Regional State has long history in teaching learners with disabilities which is within close proximity to the workplace of the researcher.

1.7.2. Limitation of the Study

All research has limitations, and this study is no exception. In this study, there were four major limitations. The research did not include all Integrated Primary Schools because of financial and time restrictions found in the country; hence, the study is focused on Integrated Primary Schools which are found in one region of the country, namely Amhara National Regional State and was limited to 10 Integrated Primary Schools. The second reason relates to lack of sufficient and relevant local related reference materials such as books and research works done in the Integrated Primary Schools. The third reason relates to the research approach which is open to subjectivity. To minimise the limitations of qualitative research which was the main approach adopted in the study, the researcher used quantitative research as well, through administering a questionnaire. In the data analysis, findings collected from qualitative and quantitative data collection instruments are analysed independently and triangulation is made which balanced out the limitations of each research approach. The fourth limitation was in the smaller limitation of the quantitative data and specifically the questionnaire to deaf learners had the opportunity to respond with a yes or no to the questions. It was hard to say either yes or no to most of these questions. A Likert scale would have been much more appropriate and informative and would have given more reliable results. This could not be changed at this stage and therefore, it was the possible limitation of the study in this section.

1.8. SIGNIFICANCE OF THE STUDY

The research has enormous implications in identifying the educational practices, opportunities, challenges and service provisions for deaf learners in the Integrated Primary Schools of Amhara National Regional State. In addition, the study will benefit those who are attempting to provide

quality education for all. It will help those working with and teaching and learning of deaf children. It highlights how the teaching and learning of deaf or hard-of-hearing children is promoted so that the school administrators, governmental bodies, or nongovernmental organisations will understand the gaps or achievements in integrated educational provision so as to render better services. Deaf children will benefit from the study if educational and environmental barriers can be minimised. Moreover, the study will have great importance in promoting deaf learners' achievement, minimising school dropouts and grade repetition. It will contribute to achieving education for all and the realisation of fundamental human rights.

1.8.1 Contribution to Knowledge

The fundamental nature of study is about discovering more facts and adding to the current body of knowledge on the education of deaf learners. This study is conducted in the Integrated Primary Schools that teaches deaf learners. The findings and outcomes of this study have made the following significant contributions to the body of knowledge regarding inclusive education: the necessity of having a common understanding of the values of inclusive education, practicing inclusive education, and addressing the variety of educational needs of deaf learners.

1.8.2 Contribution to Policy

The study provides information on how Integrated Primary Schools are educating deaf learners in addressing their instructional, social, communication and material needs. The findings of this study highlight the practices of Integrated Primary Schools in teaching deaf learners, the opportunities they have as well as challenges faced in the schools. This may inform policy makers to amend the current educational policies regarding the educational provision of deaf learners. Additionally, the findings might offer insights for planners and policy makers to prepare suitable plan, modify existing ones and change intervention mechanisms for the education of deaf learners in the Integrated Primary Schools of the study area in particular and in Ethiopia in general. The primary purpose of this research is to look the education of deaf learners from a new perspective. So far, most studies on the education of deaf learners have focused on areas of special schools and special classes of deaf learners. In this research, the researcher has tried to shift the focus to integrated education of deaf learners rather than segregated education and this has led to the development of inclusive education for deaf learners. If the findings of this research are applied in the context of the integrated schools where deaf learners are attending, they have the potential to transform policies. Understanding the educational practices, opportunities and challenges of deaf learners increases the awareness of educational experts on how to provide educational accessibility for persons with disabilities.

1.8.3 Contribution to Awareness

Since the data is collected from teachers, principals and deaf learners of the Integrated Primary Schools, findings of this study will create awareness among teachers of deaf learners, SNE teachers, principals, deaf learners, learners with other disabilities, learners without disabilities and school communities about the challenges that affect the education of deaf learners, thereby:

- indicating possible mechanisms for minimising the challenges;
- maximising the educational opportunities for deaf learners in Integrated Primary Schools in particular; and
- improving the quality of education of Integrated Primary Schools in general.

1.8.4 Contribution to Practice and Research

Deaf learners in the Integrated Primary Schools still face many challenges. The findings of this study will be presented to education stakeholders ranging from Integrated Primary Schools to the MoE, universities, teacher training colleges and other stakeholders. Applying the recommendations of this study will not only contribute to the education of deaf learners, but also increase the quality of education for all and make the working life of teachers of deaf learners in the Integrated Primary Schools easier. Finally, this study will provide a useful stepping stone for other researchers to explore other aspects of the education of deaf learners.

1.9. CLARIFICATION OF CONCEPTS

- **Assessment:** teachers' teaching practices of teaching methodologies, instructional techniques, teaching aids and resources used to educate deaf learners in the Integrated Primary Schools.
- **Best Teaching Practices:** teaching practices in Integrated Primary Schools which make use of suitable teaching methodologies, instructional techniques, teaching aids and resources which are advantageous to all learners.
- **Challenges:** unfavourable circumstances of Integrated Primary Schools in relation to the education of deaf learners. These challenges are related to organisational challenges such as classroom's structure, management, teachers' knowledge and skills, assessment, teaching methodologies and curriculum as well as the support services provided for deaf learners.
- **Deafness:** includes learners who have hearing impairments such as being hard-of-hearing and/or being totally deaf.
- **Inclusive Education:** an education system opens to all learners irrespective of their possible challenges, such as poverty, gender, ethnic origin, language, learning difficulties

or disabilities. Inclusive education is a method of education where all children are put in their local schools in general education classes to obtain quality training, intervention and support.

- **Inclusive Schools:** schools that are open to all children, or centers of learning and educational systems. Teachers, schools and programs will need to adapt to better meet the variety of needs those learners have to involve them in all facets of school life in order for this to happen. It also means a mechanism to recognize any obstacles that impede learning and minimize or eliminate these barriers inside and around the school. In inclusive classrooms, teachers find ways of acknowledging their learners, recognizing the unique needs of learners, and offering effective support according to their needs.
- **Integrated Education:** Whenever the placement best suits their individual learning, it applies to the method of teaching children with disabilities in normal classrooms. Integrated education is an education system which brings children together from different backgrounds into each school in which physical and social interaction of learners with and without disabilities is observed.
- **Integrated Primary Schools:** refers to primary schools which have Grades 5–8 that educate deaf learners together with other learners without hearing impairment in the regular schools.
- **Integration:** used primarily when children with disabilities join regular schools that have made very few, improvements to support the learner. Instead, the learner is required to adjust to the new arrangements.
- **Learners:** deaf learners who are attending Integrated Primary Schools to and need different types of interventions and supports.
- **Opportunities:** the favourable circumstances of Integrated Primary Schools in link to the education of deaf learners. The opportunities that the Integrated Primary Schools provide to deaf learners with to learn together with their learners without hearing impairment, access to quality education and other resources. In the integrated setting, deaf learners are the ability to be exposed to a wide variety of social relationship and communication.
- **Ordinary Schools:** include schools that are pre-school, primary and secondary. As a group, they are also known as ordinary or daily schools to differentiate them from special schools.
- **Sign Language:** the primary language of deaf learners in the Integrated Primary Schools that uses the visual and manual modality to convey meanings and communication in the course of learning and teaching.
- **Special Needs Education:** the instruction system centers on children and learners who, due to learning difficulties, disabilities or socio-emotional problems, are at risk of

repetition and dropout, or are excluded from schooling. SNE is an education system for children with special needs that takes account of their unique educational needs and seeks to fully improve their mental and physical abilities and their independence and social involvement.

- **Special Needs:** the instruction system for children who require some sort of extra support and assistance, a general and somewhat divisive concept. As their needs can differ so much, it is not possible to provide a specific description.
- **Special Schools:** are the schools for children who have a serious disability or impairment. For example, schools are exclusively for deaf children in many countries; those with visual impairments or those with intellectual disabilities.
- **Special units/ special classes:** these are classrooms that may be set aside by an ordinary school particularly for children with special needs. In the unit, these learners may receive some or all of their teaching.
- **Teachers:** people who are teaching and supporting deaf learners and other learners without hearing impairment in the Integrated Primary Schools. A member of staff in the Integrated Primary Schools with practice or training who is available to facilitate and support all learners.

1.10. OVERVIEW OF CHAPTERS

Chapter 1 presented an overview of the study. Introduction and background of the study are outlined followed by the statement of the problem, aim of the study, study objectives, research questions and literature review. The research methodology, scope, limitation, significance and clarifications of terms are also presented sequentially.

Chapter 2 presents a review of relevant literature focusing on education of deaf learners. First, the historical development of SNE and special education in Ethiopia is presented. It focuses on issues related to deafness and provides an overview of deaf education with respect to concepts of integration and inclusive education, integration of deaf learners in regular classrooms, international and national policies for deaf learners, educational programmes for deaf learners, material and equipment to deaf learners in the integrated schools, learning environments for deaf learners, educational services and support for deaf learners, social interaction of deaf learners in integrated schools, and the existing pedagogical practices, opportunities and challenges of deaf learners in the Integrated Primary Schools are discussed.

Chapter 3 focuses on the methodology of the study. The research design and the research approach are presented and justified followed by a description of the research area, the population of the study, sample and sampling technique. Then a discussion of data collection instruments, the pilot study and data collection procedures are provided. Finally, data analysis mechanisms and ethical considerations are discussed.

Chapter 4 presents the results of the study. The data are analysed based on the research questions mentioned in Chapter 1. The findings present the background characteristics of the samples, followed by analysis of results obtained from quantitative data using SPSS and descriptive statistics (frequencies, percentages, means, standard deviations and one sample t-tests). This is followed by presenting the results obtained from the qualitative data. This chapter ends with a presentation of possible solutions provided by participant samples regarding the education of deaf learners in the Integrated Primary Schools.

Chapter 5 presents a discussion of the findings drawn from the results of the study from Chapter 4. Then a summary and conclusions of the study is presented based on the results obtained. Finally, recommendations regarding the education of deaf learners in the Integrated Primary Schools are provided and suggestions for future research was forwarded.

Chapter 6 deals with the framework proposed by the study. This chapter presents a model of integrated schooling for deaf learners, placement option for deaf learners, challenges faced by deaf learners and importance of educating deaf learners in the integrated schools.

1.11. CHAPTER SUMMARY

This chapter included the introduction and background of the study, statement of the problem, aims of the study, study objectives, research questions, literature review, methodology that covers research design, research approach, samples and sampling technique, data collection instruments, methods of data analysis, area of the study, scope and limitation, significance of the study and clarification of key terms. It included the key terms related to the education of deaf learners in the Integrated Primary Schools of Amhara Region. The next chapter presents the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter introduces the explanation of deafness, classification of hearing impairment, causes of hearing impairment, prevention of hearing impairment, developmental profile of children with hearing impairment, the need for early intervention, historical development of special needs education, historical development of special education in Ethiopia, concepts of inclusion and integration, international and national policies for deaf learners, an overview of deaf education for the deaf in Ethiopia, inclusion of deaf children in ordinary schools, basic educational programmes for deaf learners, materials and equipment to deaf learners in inclusive setting, physical learning environment to deaf learners, educational services and supports to deaf learners, curriculum modification and its benefits for deaf learners, social interaction of deaf learners in inclusive schools, major opportunities for deaf learners, major challenges faced by deaf learners and how the barriers could be addressed are discussed in this literature review chapter.

2.2 CONCEPTS OF INCLUSION AND INTEGRATION

Inclusive education largely focused on children with special educational needs arising from learning or behavioural difficulties. Now, however, it is being extended to meet the different requirements of all learners. Inclusive education is an ongoing process aimed at providing high-quality EFA while recognising learners and communities' diversity and different desires and capacities, the features and educational goals and the abolition of all forms of stigma and isolation. Inclusive education ensures that both learners with and without disabilities can learn together by attending schools with sufficient support services (UNESCO, 2015).

In addition, UNESCO (2015) reported that inclusion is a concept that communicates a dedication to educating each child in the school and classroom they would otherwise attend to the full extent possible. This entails delivering social care to the child (instead of transferring the child to the support) which only helps the child to profit from being in the class instead of struggling to keep up with the other learners. Integration is the placement of children with disabilities, which requires a process of incorporating various components into a unit. It applies, as used in special education, to the education of learners in ordinary schools with special needs. Integration offers a "natural" atmosphere in which these learners are free from the alienation that is typical of a very unique placement in school together with their peers. Integrated educational environments offer disadvantaged learners the ability to connect and better prepare them for life in the real world with

learners without disabilities. Learners without disabilities have the ability to learn about the complexities and uniqueness of human characteristics and that discrepancies are exceeded by common traits and needs. It is a method of providing education for all children in the same class, irrespective of their history and ability differences (Alemayehu, 2012).

The concept of integrated education emphasizes methods which concentrate on viewing the student as a whole person. Integration into the educational system ensures that learners with and without disabilities learn together, help them to get to know each other and to be in one room during classes. Integration emphasizes the togetherness of all learners with the same learning environment (Fan, 2014). Integrated education has both advantages and disadvantages in its implementation. Its advantages are that, it has the promoting lifelong listening and social engagement in the hearing and visual community. It also eliminates the segregation of minorities and the children become more tolerant of each other when they are learning together. This in turn helps to shape their future life in society. In terms of disadvantages, due to special equipment needed, service provision is much more costly and specially trained teachers who know sign language need to be hired for translation purpose (Muchtaron, M., Budimansyah, D. & Suryadi, A.,2016). Professionals distinguish three main forms of integration in terms of social, physical and functional integration. In addition to the classroom events, social interaction is where children entering a special class or unit eat, play and partner with other children inside and outside the classroom. Physical integration is seen when classes are formed in ordinary schools or where the same geographical location is shared by a special school and ordinary school. Functional integration is the fullest process of integration and is achieved when involvement in educational activities contributes to physical/location integration and social interaction (Asrat, 2013).

Inclusive education involves keeping equal rights and creating equal opportunities for all children to learn together. Inclusion starts with the recognition of differences in all children but not grouping them based on these differences. It also needs a strong attention on those who may be at risk, disadvantaged, and underachieving. Inclusion is concerned with offering adequate responses in all aspects of education to the wide range of learning needs (UNICEF, 2014). An inclusive school is an environment where everybody participates. It is welcomed and is encouraged in the process of meeting their educational needs by their peers and other members of the school community. Full-time participants of the general education classroom are learners with disabilities in comprehensive education (Amsale, 2014). The aim of inclusive education is to provide the required resources so that all children can meaningfully participate in ongoing classroom activities. Help can also require the use of additional resources or the provision of

advanced training to current employees. Inclusive education is a way of providing learning open to all children (consisting learners with disabilities and children without disabilities) in the same class by designing or planning instruction according to the interests and abilities of individual learners (Kirschner,2015). In Inclusive education, identifying the characteristics, ability and interest of the children is the first task of a teacher before they prepare a lesson. The next task is planning and selecting different activities and instructional materials for those children with different needs, abilities and interests. Inclusive learning is a way that aims to change both the general and special education systems and to increase the standard of education for all learners. The quest for inclusive education necessitates a systemic process of initiating school reforms in order to create quality, participatory and socially just educational communities for learner diversity (Liasidou & Antoniou, 2014)

Alasim (2018) reported that settlement of learners with hearing impairments in primary schooling classrooms may be linked with either integration or inclusion, depending on factors such as level of support. With regard to educational integration, Limaye (2016) reported that educational integration means that the children with and without disabilities study together. This helps them to get to know each other and to be together in one room in order to get acquainted with each other during lessons and leisure activities. We may also talk about total, partial, restricted or decreased school integration, or about individual classroom integration in regular school and an individual's integration into a special class linked to regular school.

2.3 EXPLANATION OF DEAFNESS

Hearing impairment is a general concept that encompasses people with hearing impairments ranging from mild to severe; it covers those that are deaf and hard-of-hearing. Hearing loss indicates a hearing impairment that is so severe that the child is deficient in the processing of linguistic information through hearing, with or without amplification, which adversely affects educational performance (Nelson & Bruce, 2019). Hearing impairment, whether permanent or oscillating, is a hearing impairment that adversely affects a child's educational success.

Deafness is not a learning disability in itself. Deafness can have an effect on language acquisition, cognitive development and linguistic ability due to delayed identification and the absence of early intervention (Nelson & Bruce 2019). According to Turan, (2012), with appropriate intervention and support – which includes early exposure to language – deaf children can access education and develop on par with their learners without hearing impairment. In addition to spoken or written language, learning sign language at an early age has important benefits for deaf children (Tahir &

Sajida, 2016). Adults who develop sign-language abilities from birth have improved grammatical judgment, while adults who have documented learning sign language from 2 to 8 years of age have found it more difficult to gain the same language abilities. For children to make the most of their linguistic skills, learning both a sign language and a spoken or written language would be the most advantageous (Belay, Fantahun & Missaye, 2015).

A deaf individual is someone whose loss of hearing is preventing linguistic knowledge from being processed effectively by audition. Hard of hearing person should use hearing aids and has adequate residual hearing to enable linguistic knowledge to be processed effectively via audition (Szymanski, Lutz, Shahan, & Gala, 2013). As the growing number of deaf learners attend the health professions, to ensure efficient learning and precise communication, they need accommodation in the clinical environment. While obstacles to classroom learning have long been recognized and discussed, there has been far less study of barriers to clinical education. For deaf learners, auditory and visual stimuli present specific barriers (Meeks, Laird-Metke, Rollins, Gandhi, Stechert & Jain, 2015).

In this study, deafness is a concept that has continued to elude any set meaning by anybody because there are a range of definitions within the term "deaf" that fit only the views of individuals, and the World Health Organization has defined deafness as the people mostly have profound hearing loss, which implies very little or no hearing. They often use sign language for communication (WHO,2018). A person without hearing impairment can see it as a disability where a deaf person cannot hear and therefore could never speak, whereas "deafness" is just a normal part of life without sound. Nonetheless, in the general community, it is the "voice" carried by the spoken language that is heard over the silent speech of the deaf (Wallang, 2016).

Despite deafness having no universally accepted definition, there are several definitions about deafness which are given by different professionals in the medical, educational and legal professions (Tadesse, 2019). It is worth noting that two most prevalent models are used when discussing 'deafness': the Social and Medical models (Ferndale, 2015). In the Social model, deafness is seen as a linguistic and cultural identity – with disability being caused by society's rigidity in making accommodations. Individuals are referred to as 'deaf', indicating their membership of the deaf community (Kristin & Kathryn, 2014). In medical model, deafness is defined as the inability of a person to hear, and as something to be overcome (Retief, & Letšosa, 2018). In the context of social model, deafness is the inability to create accessible learning environments. That is why inaccessible learning environments are the primary reason behind the

marginalisation of the deaf community in classes worldwide (Kristin & Kathryn, 2014). However, the following description was provided from an educational approach focused on how much hearing loss is likely to impact the ability of the child to understand, communicate, speak and develop language: deaf learners have weak reading comprehension abilities, poor word spelling abilities, abstract concept difficulty (may be able to think in abstract terms, but unable to convey the concept (WHO, 2016). Learners with mild or severe types of hearing impairment, however, typically special education programs of some kind are required to obtain sufficient educational provisions. Services of this type often include routine voice, expression, and specialist auditory instruction, amplification systems, interpretation programs for learners that use sign language, favorable classroom positioning to facilitate lipreading; captioned films/videos, support from a note-taker who takes notes for a learner with hearing problems so that the learner can completely attend the training, teacher and peer instruction in alternative communication strategies, effective communication methods, such as sign language, and counselling (WHO, 2018).

The loss of hearing can vary from mild to profound. As a common term, level of loss of hearing suggests a spectrum of mild, moderate, extreme to deep damage of hearing (WHO, 2015). The first stage of hearing impairment is mild hearing loss, typically varying from 26 decibels to 40 decibels; in the sense of noise, the person has difficulty hearing and understanding soft voice, distance speech or closer speech. The second type of hearing impairment is moderate hearing loss, typically ranging from 31 decibels to 60 decibels; normal speech, often at near distances, is difficult for the individual to hear. This can affect the development of languages, peer interaction and self-esteem. The third degree of hearing impairment is severe hearing loss, typically varying from 61 decibels to 80 decibels; only extremely loud speech or loud noises, such as a siren or a slamming door, can be heard by the individual. Most speech in conversation is not understood. Profound hearing loss at over 81 decibels is the fourth and last stage of hearing impairment; loud noises can be experienced by the individual as vibrations and speech and language can deteriorate (Swanepoel, & Laurent, 2019).

In this study, hearing impairment is characterised as a hearing loss that negatively impacts a child's academic performance, whether persistent or oscillating. According to Meeks, et al. (2015), deafness is defined as a hearing impairment which is so profound that the child is impaired by hearing, with or without amplification, in the processing of linguistic information. Deafness is therefore viewed as a disorder that prevents learners from educational participation (Ibid). There are various definitions for the terms deaf and Deaf. For those for whom deafness is predominantly an audiological experience, the word "deaf" is capitalized. It is

primarily used to describe people who have lost all or part of their hearing in their early or late lives and who typically do not want to interact with signing deaf communities in favor of attempting to maintain their membership in the majority community where they were raised. The term "Deaf" refers to people who were either born deaf or became deafened as young children. For these people, the sign languages, communities, and cultures of the Deaf collective represent their life experiences, and many of them see themselves as being essentially similar to other language minorities. The phrase "deaf culture" was coined in the 1970s to express the idea that Deaf people have unique lifestyles communicated through sign languages (Mahadi & Jafari,2012). Deaf children who are mainstreamed lack the sense of community that members of the deaf culture associate with residential school and that their experiences differ greatly from those learners who attend residential schools for the deaf (Ibid).

2.4 CLASSIFICATION OF HEARING IMPAIRMENT

According to the WHO (2018), a person who is unable to hear sounds is said to have hearing impairment, which is divided into four categories: mild, moderate, severe, and profound hearing loss. It can affect one ear or both ears and this can lead to difficulty in hearing speech or loud noises in conversation. Furthermore, hearing impairment can be divided into two categories: hard of hearing and deafness. The first category "hard of hearing" refers to people who have moderate to severe hearing loss. People who are hard-of-hearing typically communicate by spoken language and may benefit from hearing aids, cochlear implants, as well as captioning, and other assistive devices. The second classification of hearing impairment is deafness. Deafness is a type of hearing loss in which a person has profound types of hearing loss. This person is unable to understand speech even while using amplification. For communication, individuals with deafness use sign language (WHO,2018).

Hearing impairments leads to loss of normal verbal communication and can affect one or both ears. It can happen suddenly or get worse gradually. As shown in Figure 2.1 below the human ear can be functionally divided into two major divisions, the conductive division linked to the air conduction areas (the outer ear and the middle ear) and the sensorineural division linked to the inner ear.

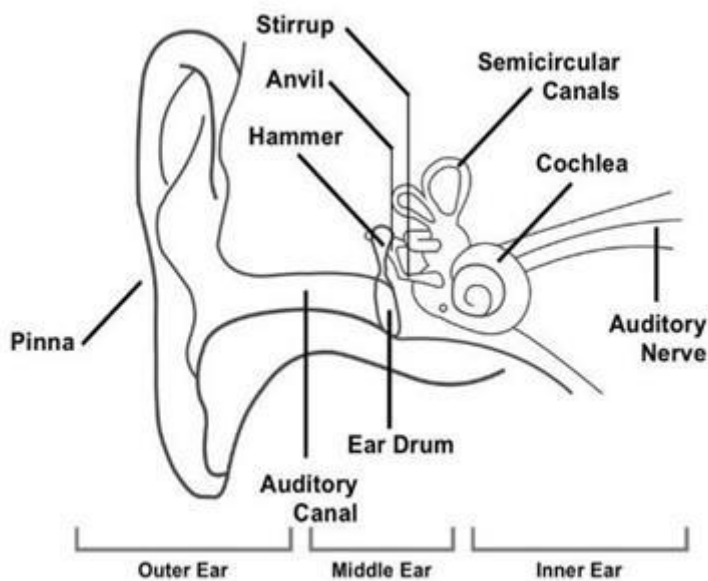


Figure 2.1: Diagram of the ear Source: Gorman (2018)

There are three major forms of hearing impairment that are known as conductive, sensorineural, and mixed hearing loss depending on which portion of the auditory system is affected. Conductive hearing impairments arise when sound is not adequately conducted to the eardrum and the ossicles of the middle ear via the external ear canal. Conductive hearing impairment is a form of hearing loss differentiated by better hearing thresholds for bone-conducted signals contrasted with air-conducted signals. Conductive hearing disorder, while maintaining a normal inner ear function, is frequently related with abnormalities in the outer and/or middle ear. The audiogram usually indicates natural conduction of the bone (0–25 decibels) and excessive levels of the air conduction threshold, greater than 25 decibels, for conductive hearing impairments (Alshuaib, Al-Kandari & Hasan, 2015).

The most common form of hearing impairment is sensorineural hearing impairment, which cannot yet be medically treated and it happens when there is dysfunction of the inner ear (cochlea) or nerve impulses from the inner ear to the brain. Typically, the sensorineural portion (inner ear) is permanent, but it may not be the conductive hearing loss (outer ear) (WHO, 2018). Hearing impairment that develops in the cochlea or beyond, either along the 8th cranial nerve or as a result of damage in the brain, is sensorineural hearing loss. Sensorineural hearing impairment can cause total loss of hearing, although it is common for the outer ear and middle ear. Sensorineural hearing loss individuals show similar thresholds for air and bone conduction. Usually, the sensory component is due to lead to injury to the corti system or the failure of hair follicles to stimulate the auditory nerve. At 120-155 decibels following immediate

exposure to a loud noise, there can be severe sensorineural hearing loss from fires, fireworks, gunshots and music concerts, for example. Sensorineural hearing loss has other causes, namely, inner ear malformation, ageing, Meniere's disease, ototoxicity triggered by medications, and tumors such as acoustic neuroma (Alshuaib et al., 2015).

Many people with mixed hearing loss experience sounds as very soft in volume and difficult to understand. Conductive hearing impairment and sensorineural hearing impairment also have combined hearing impairment characteristics. This means that both the outer and the inner ear are affected. The outer ear is unable to adequately conduct sound to the inner ear, and the inner ear is unable to interpret the sound that is transmitted to the brain (Swanepoel & Laurent, 2019). A form of hearing loss in the same ear that has a combination of conductive and sensorineural damage is mixed hearing loss. In cases in which both an air-bone gap broader than 10 decibels and an elevated bone conduction threshold are observed, mixed hearing loss is suspected. Although the conductive portion can be treated, the sensorineural aspect is more of a challenge (Alshuaib et al., 2015).

2.5 CAUSES OF HEARING IMPAIRMENT

Hearing impairment can be caused by a variety of factors. Ear infections, untreated illnesses in childhood, injury/trauma, aging, exposure to prolonged or excessive loudness, drugs and other chemicals that are hazardous to the ear, and nutritional inadequacy are all possible causes of hearing loss (WHO, 2018). Congenital causes of hearing impairment and acquired causes of hearing impairment are the distinct causes of hearing impairment. The term congenital hearing loss means that hearing loss is present at birth. Congenital hearing loss can be caused by genetic or non-genetic (acquired) factors. Non-genetic factors that are known to cause congenital hearing loss are linked to pregnancy and birth delivery. Acquired causes of hearing impairment can contribute to hearing loss at any age. These include infectious diseases, use of certain medicines, head or ear injuries, excessive noise, recreational exposure to noisy sounds and ageing (WHO, 2015).

2.6 PREVENTION OF HEARING IMPAIRMENT

Several experts have agreed that it is possible to remedy or avoid hearing impairments. It is proposed that public health interventions can potentially solve half of all forms of hearing impairment. In some cases, the steps needed for prevention may be easy in the intervention of hearing impairments, while in other instances, complex medical technology may be required.

According to WHO (2015), of children under 15 years old children, 60% of hearing impairment is attributed to preventable causes. The report indicates that 75% of hearing losses are due to preventable factors in low- and middle- income countries. It is also noted that 49% of hearing losses in high-income countries are due to preventable causes. To minimize the impact of hearing impairment on the growth and educational achievement of a child, early intervention is critical (WHO, 2017).

Early intervention of deafness provides the best chance of improving the language, communication and speech skills of deaf children in line with patterns of behavior and timelines for learners without hearing impairment. The influence of deafness and hearing loss on an individual's life can be effectively minimised by early detection accompanied by timely and suitable management. Depending on the infant, the family's wishes and the services available throughout the country, treatments can vary, but may include speech and language therapy, access to a deaf community, sign language learning in the family, special deaf teachers, medical interventions through hearing aids or cochlear implants. Three preventive stages of primary prevention, secondary prevention and tertiary prevention can be applied in the prevention strategies for deafness and hearing impairment. The avoidance of significant causes of deafness and hearing impairments is primary prevention. Congenital or early-onset hearing impairment in childhood, persistent otitis media, chronic middle ear infection, noise-induced hearing loss, ageing-related hearing impairments and medications that harm the inner ear are the key factors that can be avoided by primary intervention. Secondary and tertiary hearing impairment prevention requires the avoidance or mitigation of the impact of hearing impairment and deafness (WHO, 2017).

The prevention of hearing impairment contains childhood vaccination towards childish diseases; immunization against rubella by teenage girls and women of reproductive age before pregnancy; prevent syphilis and other infections from occurring and being treated in pregnant women; prevent cytomegalovirus infections in expectant mothers by good hygiene; strengthening services for maternal and child wellbeing strategies, reducing exposure to loud noises (both workplace and leisure) by raising risk awareness; encouraging individuals to use individual protective devices such as foam ear plugs and headsets and noise-cancelling headphones; ; educating about hearing loss, its causes, treatment and diagnosis to young people and the wider community (WHO, 2017). When there is no identification and intervention early on hearing impairments, there is evidence that the hearing impairment has a negative functional, social, emotional and economic impact on the individual with the hearing impairments (MoE, 2016).

2.7 DEVELOPMENTAL PROFILE OF CHILDREN WITH HEARING IMPAIRMENT

Hearing is important to the growth of speech, language, communication, and learning. Language acquisition, cognitive development, social and emotional development include the developmental profile of children with hearing impairments. Based on the American Speech-Language-Hearing Association (2020), there are four key ways that hearing loss influences the development of infants. It causes a delay in the acquisition of speech and language responsive and expressive communication skills; the language deficiency causes learning difficulties that contribute to a decline in educational performance; communication problems often lead to social alienation and low self-concept; it can influence vocational choices. The sooner hearing loss happens in the life of a child, the more severe the effects on the health of the child are. Similarly, the sooner the issue is detected and action started, the less extreme the ultimate effect.

2.7.1 Language Development

Hearing is important to the development of language and voice, according to the American Speech-Language-Hearing Association (2020). Hearing loss is a common problem in all ages and affects the quality of life and it is most often manifested in communication difficulties. Hearing impairment influences communication skills improvement that are sensitive and articulative, which can lead to diminished context awareness and incidental learning (Alsaeed & Aldobooni, 2020). Communication problems also lead to feelings of social isolation and poor self-concept and can affect career choices. Children with hearing problems face problems of language development delays. Listening to sounds and phrases help children learn to communicate and comprehend. This can trigger speaking, reading, school achievement, and social skills issues. The linguistic development experienced by hearing children substantially differs from that of children with hearing impairments. Hearing impairment can contribute to decreased development of speech and language skills of children, and this problem of developing speech and language skills can lead to school learning problems, feeling bad about themselves, having trouble making friends (Tadesse, 2019).

2.7.2 Cognitive Development

Hearing impairment has an influence on the cognitive functions and development. Hearing impairments and psychomotor, communication, and language-acquisition skills developments have strong relationship. Similarly, hearing impairment can affect developments of psychomotor, communication, and language-acquisition skills (Nasralla, Goffi-Gomez, Magalhães, Bento, 2014).

Hearing is very important for social interactions, communication, speech and language

production, and learning, according to the American Speech-Language-Hearing Association (2020). Due to hearing impairment, children with hearing impairments have listening problems, there is a greater effect on the child's subsequent cognitive development, language learning, some of which include vocabulary, phrase structure, voice, academic achievement, and social functions. Some of the effects of hearing loss on children's cognitive functions are that they remember basic terms more quickly than abstract words; they have difficulty interpreting words with multiple meanings much of the time; they understand and create shorter and simpler phrases; and they can also not hear sounds of quiet speech (Skogen, 2015).

2.7.3 Social and Emotional Development

The microsystems that specifically affect the growth of the child are the bio-ecological environments of the family and the school (Rogoff, 2016). With their immediate surroundings, the infant has distinct interactions and explores various behaviors through contact with more experienced adults and peers. Learners with hearing impairments may learn socialisation from their parents, siblings, peers and teachers, but the importance of socialisation depends on the feelings of individuals communicating with the impaired person. It includes the exchange of people's social environments of emotions, meanings and ideas (Hintermair, 2016). Inclusion is important to establish significant social contact and engagement between learners with hearing disabilities and learners with hearing impairments, and to improve the positive attitude of children with hearing disabilities towards learners with hearing disabilities. When a satisfactory mode of communication can be used, most individuals with hearing impairments are entirely capable of forming a constructive relationship with their listening peers. However, in normal school, learners with hearing impairments also have difficulties forming close relationships with their listening peers (Hehir & Katzman, 2012).

Communication problems can seriously delay the development of social interactions for learners with hearing impairment who receive all or part of their education in the ordinary education classroom. Interaction is the shared understanding of sharing and exchanging interests between two or more individuals; emotions; opinions; or knowledge by the use of various communication systems (Kirschner, 2012). Kirschner (2012) proposed that learners with hearing impairments engage in ways that are different from those around them that can slow down their social interaction and growth with regard to communication. Learners with hearing impairments who are not socially integrated in the daily class may experience isolation due to communication difficulties (Hehir & Katzman, 2012). According to Hintermair (2016), interaction is also critical for the social development of children with hearing impairments and other children who have a positive attitude to the communication process.

2.8 THE NEED FOR EARLY INTERVENTION

Early intervention is described as programs of intervention that take place over the period from birth to school age. It is significant to provide early intervention for learners with mild and severe hearing impairment. Many deaf and hard-of-hearing infants, the natural language of the deaf world, are born to hearing families who do not have sign-language abilities. In the early language learning years, deaf or hard-of-hearing children should be able to develop a language of native fluency and that their relatives are able to communicate with them effectively. It is also crucial that these children are able to build a positive self-image from the beginning and to be confident about themselves and their place in the world (WHO, 2012).

There are many misconceptions about early intervention services and what they entail. There are many different models of early intervention Programs out there designed for young children (before school age) with disabilities. The Special Education Policy promotes early intervention and assessment, effective curriculum adaptation and differentiation, the use of appropriate pedagogical methods, sufficient and appropriate educational tools, and open communication in the classroom for learners with diverse needs (MoE, 2018).

Early intervention is the process of providing services, education, and support to young children who are deemed to have an established condition, those who are evaluated and deemed to have a diagnosed physical or mental condition (with a high probability of resulting in a developmental delay), an existing delay or a child who is at-risk of developing a delay or special need that may affect their development or impede their education. Early intervention refers to taking steps to fix issues as soon as possible before they become impossible to reverse (WHO, 2012). Early intervention is carried out to impact the growth and learning of children with developmental disorders or delays, or who are at risk from biological or environmental causes. Early intervention involves initiatives, services and supports aimed at enhancing the growth of young children, reducing the risk for developmental delays and the need for special education services, and improving the ability of caregivers for families. It also involves systems, resources and supports aimed at optimising the growth of young children, reducing the potential for developmental delays, minimising the need for special education services, and improving the ability of caregivers for families (Eaton, 2012).

Early intervention is a service delivery system for newborns and children who have developmental problems or disabilities. Furthermore, early intervention services are a collection of programs designed specifically to assist and support children with developmental delays or

any other health concern (WHO, 2012). The self-care capabilities of children who received early intervention treatment improved, allowing them to become more independent in the future as therapists used natural settings and daily activities to train the children (Sridevi & Arya, 2014). One of the most noticeable changes in any child who participates in an early intervention program is their ability to dress independently with minimal assistance from their parents, as well as their attention span. Early intervention focuses on helping qualifying babies and infants acquire the basic and brand-new abilities usually developed during the first three years of life, such as physical, cognitive, communication, social/emotional and self-help abilities (Schaaf, Hunt, & Benevides, 2012).

However, there are many scientific studies which reported that such programmes showed positive feedbacks on the children in different perspectives. The benefits of early intervention programs are to meet the individual needs of the child, including assistive technology (a child may require devices), audiology or hearing services, speech and language services, family counseling and training, medical services, nursing services, nutrition services, occupational therapy, physical therapy and psychological services (Batool & Ijaz, 2015).

Early intervention helps to mitigate problems that happen or to address them head on when they do, before issues get worse. It also helps to foster a whole range of personal strengths and skills that prepare a child for adult life (WHO, 2012). Early intervention can take several forms. It starts home visiting services to support vulnerable parents, to school-based programs to improve children's social and emotional skills, to mentoring programs for young people vulnerable to crime. Early intervention may have the greatest effect when delivered during the first few years of life, the strongest evidence suggests that effective interventions can increase children's life chances at any point during childhood and adolescence (UNICEF, 2014). In education, the workplace, and the community, positive early experiences are important prerequisites for later success. It has been shown that interventions for young learners who seem to have or are at threat of defects in development have a significant effect on outcomes across areas of development, including wellbeing, language and communication, cognitive development and social/emotional development. Family members lead to early intervention by being able to better resolve their children's special needs at an early age and throughout their lives. The advantages include lowering the economic burden by reducing the need for special education (MoE, 2012).

2.9 HISTORICAL DEVELOPMENT OF SPECIAL NEEDS EDUCATION

Education of special needs is a relatively recent form of educational philosophy which has its own history. SNE is an educational strategy for providing services specially designed to address the unique needs and talents of below average, average and outstanding learners including children with disabilities and gifted and talented children (MoE, 2012). In the age of the Greeks and Romans, which was the era of extermination, disability was a "punishment of the gods," a poor or evil symbol, and the individual with disability is what he/she is now and forever" (Rossa, 2017:23). Traditionally, people with disabilities were often put in hospitals, shelters, or other facilities that offered various types of care and few educational services (WHO, 2012).

According to Hornby (2015), it is possible to describe three SNE key stages of developments: isolation and alienation, access and inclusion, and responsibility and empowerment. Historically, until the mid-1960s and 1970s, disability was seen as a disorder or 'feel left of nature' and individuals who had disabilities were forced into loneliness and alienation (Rossa, 2017). Throughout the civil rights era in 1980s, families and activists campaigned through accessibility and incorporation to change this point of view and achieve rights for people with disabilities (UNHR, 2014). People with disabilities have been more inspired from the 1990s to the present and are trying to reinvent their role and standing as a cultural phenomenon in society rather than inferior to able-bodied, capable-minded people in the dominant mainstream. In addition, systems such as legal precedent and legislation, public and private initiatives and advocacy organizations have been formed to hold schools accountable for ensuring equal educational opportunities for all learners including people with disabilities (UNICEF, 2014).

About the middle of the twentieth century, people who have different types of impairments were excluded from mainstream society, mostly kept in institutions that isolated them from the outside world and their families (Haage, 2017). According to UNHR (2014), persons who have impairment in society have been considered abnormal, unable to work, disturbed and harmed others, prompting many parents to hide their children in isolated places.

The conditions in institutions were often morally reprehensible, with solitary confinement being common, and people with impairments were deemed to be socially responsible and uneducable (Haage,2017). It was not until the early 1900s that schools began to open their doors to people with disabilities, as a result of parent advocacy groups (Hernandez,2013).

Services provided in special educational provision programmes, though inadequate in many ways, have brought a gradual societal awareness and opened a way for voicing discontents over its inadequacy (Michael, Victoria & Janeth, 2012). For example, people with disabilities questioned the stigmatizing and restrictive existence of the person deficit (or medical) paradigm of these segregated education systems, and gave voice to questions of equality of access and educational opportunity. This paved the way for integration to take centre stage gradually. Governmental interferences from disability associations and advocacy organisations for parents have started to alternate the values of society and gradually brought policy improvements to education reform. In the same way, educators have been gradually finding ways to help historically segregated communities in order to find a place in mainstream schools (Belay et al., 2015).

Retief & Letsosa (2018) states different philosophies, interpretations and paradigms of "disability" themselves have impacted the education of special-needs children. In terms of views and attitudes towards disability, the 1970s represented a significant shift. Before the 1970s, disability principles were founded on the disability medical model which identified people by their personal conditions, majored on the convictions that 'undocumented' and 'educationally sub-normal' learners with special educational needs and disabilities were and promoted the use of medically diagnosed categories and segregated education. Discussions on the incorporation of learners with SNE into mainstream education started to increase at this time, and attitudes began to change from the medical model of disability to a social model of disability (Joshua, 2017). The disability medical model assumes that disability is a lack of competence in the body, mind and actions of a person. It is a variable within the person and thus, solutions consist of changing the person. Most laws and regulations were then integrated into this biomedical model of disability to correct childhood defects (ACPF, 2011, cited in Belay et al., 2015:46).

Different international conventions and declarations have made major contributions to the historical development of SNE. The Universal Declaration on Human Rights (UN, 1948), the World Declaration on Education for All (UNESCO, 1990), the Declaration on the Rights of Persons with Disabilities (1975) for All Programs, the United Nations Convention on the Rights of the Child (1989), the Standard Principles on the Equalization of Opportunities for Persons with Disabilities (1993), the World Education Forum (2000), are all conventions and declarations which inclusion was unambiguously accepted as the strongest form of education for children with disabilities. Inclusive education was the philosophy adopted at the 1994 Salamanca World SNE Conference in Spain and reaffirmed at the 2002 World Education Forum (2000) and

the Salamanca Framework for Action (1994), respectively (Belay et al., 2015).

The movement for inclusive education has gained international acceptance so that the majority of nations, including Ethiopia, are in favour of it (MoE, 2018). They are working towards its realisation irrespective of several difficulties associated with its implementation (Tadesse,2019). In the twenty-first century, increasing numbers of learners who have disabilities are being taught in inclusive learning settings. Inclusive education is an inherent and basic human right for persons with special needs which supports the slogan “Education for All”; the need to identify and remove barriers within the education system (attitudes, practices, policies and strategies, environment, curricular contents and methods, and resources), not barriers within the child and the overall orientation towards promoting opportunities for all children to participate and be treated equally within mainstream settings (UNESCO, 2015; Belay, et al., 2015).

Therefore, inclusive education emphasizes on adapting the entire structure of the school setting to the needs of the individual child, an educational strategy that aims to overcome obstacles to learning and participation, and to offer opportunities for all kinds of children with special needs to facilitate learning and participation (Ainscow & Messiou, 2018).

2.10 SPECIAL NEEDS EDUCATION IN ETHIOPIA

In Ethiopia, the SNE programme in its modern form started in 1925 (Alemayehu, 2016). Prior to this, people with orthopedic disability and visual impairment were attending traditional church education, in the Ethiopian Orthodox Church (MoE, 2012). The Ethiopian Orthodox Church has a long tradition of schooling in various churches and monasteries for people with special needs who have risen to decision-making positions. The churches and monasteries’ practice of teaching people with disability continued until the beginning of the twentieth century until the coming of ‘western education’ to the country (Zelalem, 2014).

To meet the academic as well as other needs of individuals with disabilities, several global, regional, continental and national conventions have been drafted. Among these, Education for All (EFA) is a convention that almost all countries have ratified. The major concern of the convention is every child whether persons with or without disabilities would be able gain access into public school (UNESCO, 2015). Thus, every child has the right to get quality and equitable education with their peers regardless of their race ethnicity, sex, gender, disability and other factors. Because of this, every child should have access to school in an inclusive educational setting (UNICEF, 2017).

In 1991, Ethiopia ratified the International Labour Organization (ILO) Convention on vocational rehabilitation and employment (Disabled Persons) No. 159 (1983). Subsequently, in relation to offering resources for people with disabilities, the government has adopted many laws and policies. A proclamation concerning the right to work for persons with disabilities was introduced in 1994, banning discrimination against persons with disabilities. In the selection of people with disabilities for vacancies, the Federal Civil Servant Proclamation 2002 provides for special care. This clause, however, is applicable only to government offices (ILO, 2013).

The new constitution of the FDRE (1995) discusses disability issues in broader regions, unlike the previous one. It refers more to the State's obligation to support persons with disabilities than to the promotion of disability opportunities. In 1997, a disability-oriented 'Developmental and Social Welfare Policy' was established, while in 1999 a 'National Action Program for Rehabilitation of Persons with Disabilities' was developed. (ILO, 2013). For the successful inclusion and equitable engagement of people with disabilities, the introduction of the National Program of Action' and the proclamation relating to the rights of individuals with disabilities to access different opportunities remains important (ILO, 2013). In Ethiopia, people with disabilities are considered to be "weak," "hopeless," "dependent," and unable to learn" and "charitable subjects". The misunderstandings of causal attribution applied to the misconceptions of people with disabilities have led to the low social and economic status of people with disabilities. Directives for education in the country are issued by the ETP (MoE, 2018).

It is about the right of the child to engage and the responsibility of the school to recognize this right and ensure it. Therefore, for whatever cause, it is about rejecting the isolation of learners, optimising the involvement of all learner, making learning more relevant for all children; and reconsidering and reforming education, curriculum and practice policies so that all learning needs can be met (UNICEF, 2014). One can build more accepting schools and educational practices and talk about EFA by eliminating physical, pedagogical and social barriers to learning. According to UNESCO (2014:2015), international conventions that guarantee the right to education and gender equality have been ratified by most countries. As a result, in order to represent all, including deaf children, they are legally obliged to comply with the terms of these conventions.

The number of people with disabilities in Ethiopia accounts for more than 10% of the total population (WHO, 2012). They have been marginalized against it and excluded from educational, social, economic and political opportunities, while being a significant proportion of

the total population. The current administration, started to take into consideration the desires of these social groups, at the state scale, to a greater degree than it has ever been. Primary and secondary education is free of any kind of payment. The age level of primary learners are between the ages of 7 and 14, and the age level of secondary learners are between the ages of 15 and 18.

The Ethiopian Education Development Roadmap introduced in 2018 reorganised the education system with the objective of improving the quality of education, with 8 years of primary education from year 1 to 8 and split into two cycles: first cycle (basic education) from grades 1-6 and second cycle (general education) from grades 7-8; and 4 years of general secondary education from grade 9 to 12 (MoE, 2018). Learners are divided into natural and social sciences streams when they get university entrance results of grade 12 School Leaving National Exam. Learners with disabilities study from grades 1-4 in special classes, and at the beginning of grade 5, at local primary and secondary integrated schools, they are integrated with learners without disabilities (Tadesse & Dawit, 2019). Since Ethiopia is one of the world's ancient countries, education is not new; that is to say, education is the basis of the country's civilisation (Sime & Latchanna, 2016).

In the fourth century A.D., Orthodox Christianity originated in Ethiopia, and religious education, including writing as part of its curriculum, has been offered by the Church (Abbink, 2020). With regard to the historical development of special education in Ethiopia, the reference to the establishment of the country's first modern school, Menilik II School, is comparatively closer. It was at this time that special education was provided in its current form in Ethiopia to people with disabilities. In 1917, the first special school was opened for kids with disabilities (Schiemer, 2017). As a result, in the late nineteenth century, with the establishment of a centralized system of government and the beginning of a relative modernisation of the economy of the country, and in particular because of the expansion of its diplomatic ties with the outside world after the victory of the Battle of Adowa, industrial education began to make its mark on society (Zelalem, 2014).

In Ethiopia, charitable and religious missionary organizations have begun modern education for children with disabilities. The first blind school was founded in Ethiopia, Oromia Region, Wolega District, town of Dambidolloo, in 1924. Educational services have also been offered to learners with visual impairments, learners with hearing impairments and learners with intellectual disabilities. In Ethiopia, almost all of the special schools for children with hearing impairment were founded by missionaries (Sentayehu, 2015). American Church of Christ

missionaries founded the Mekanissa special school for the deaf in 1963. This school still serves learners with hearing disorders, but it still accommodates learners with hearing disabilities. Other schools have been set up, such as the Hosanna primary boarding special school for the deaf that provides grades 1-8 education and the special school/class Entoto technical and vocational secondary education which is regarded in their respective special grades 9-12 classes as the first and only formal education for learners with hearing impairments (Alemayehu, 2012).

There are several schools providing education for learners who are eligible for SNE compared to the education policies of the previous governments that did not include children with disabilities (Aklilu, 2015). The 1994 ETP featured SNE for the first time in history, even though it was insufficient. The need to create special units and classes for learners with special needs is required by Article 2.2.3 of the policy (Tadesse, 2019). From 1994 onwards, for children with disabilities, including learners with hearing impairments, several special classes, units within ordinary schools, integrated schools and comprehensive schools were formed (MoE, 2012). The new educational policy of Ethiopia that will be enacted from 2018–2030 despite some promising opportunities, disclosed different challenges and problems that span from problems related to access, equity, efficiency, quality, governance, curriculum content and delivery, teachers' qualifications, location, educational facilities, assessment systems, teaching and learning to the budget. The provision of quality education to children with special needs in pre-primary education, elementary education and secondary education levels has been considered by this new educational policy (MoE, 2018).

2.11 INTERNATIONAL AND NATIONAL POLICIES FOR DEAF LEARNERS

The needs of children with disabilities should receive special consideration. Different legislation and proclamations are promulgated and required to be applied regarding the rights of deaf learners to education. Standard principles on the equilibrium of resources for people with special needs have been declared by the United Nations (1993). In the Convention on the Rights of People with Disabilities, the right to education is specifically and expressly stated. Article 23 of the United Nations allows States to take appropriate steps to encourage the learning of sign language. Authorities need to ensure that education for the deaf and blind is delivered in the most appropriate languages and in environments that maximize academic and social development. In order to recruit teachers who are fluent in sign language, policymakers will need to take proactive measures. Deaf children must have access to education for dignity and equality, as

must all children. They also have the right to expect that their needs and human linguistic and educational rights are understood and protected by educational authorities in full accordance with international policy statements on learning and language, as they maintain that all children can and should meet their full potential with suitable visual, normal educational programmers (World Federation for the Deaf, 2012).

Education Policy of Ethiopia gives more attention for children with disabilities by ratifying various international conventions and instruments of relevance to inclusive education. Today, special education tends to be preferred in the educational roadmap of Ethiopia (MoE, 2018) though emphasis is placed on providing both the handicapped and the talented with education in accordance with their potential and needs. The policy also notes that not only focuses to extend quality primary education to all people but also encourages economic growth. In addition, it strives to offer education to all children without prejudice and ensures that vulnerable groups obtain special education assistance. The Constitution of Ethiopia (1995) emphasises the need for the allocation of resources and assistance to disadvantaged groups, in addition to what has been described in the education policy. Under Article 90, the FDRE Constitution (1995) states that to the extent allowed by the country's resources, policies shall seek to provide access to public health and education for all Ethiopians. The Constitution, in particular, sets out the duty of the state to provide appropriate rehabilitation and support services for people with disabilities (MoE, 2012).

2.12 AN OVERVIEW OF DEAF EDUCATION

Education is one of the basic human rights to which every human being should have access. Education is an important means by which economically and socially marginalised adults and children may be motivated to improve their life chances and gain the means to engage more fully in their communities. It is a road to a good life and career, and this extends to all, including people with disability (MoE, 2012). Persons with impairments are enabled to the provision of educational service as members of a given community and by virtue of being human beings. The question of fair access and opportunities at the level of education for learners with disabilities has therefore attracted the attention of numerous stakeholders (Limaye, 2016). Among learners with disabilities who have successfully completed secondary education, the issue of equal and equitable access is increasing in importance (MoE, 2016). Children with disabilities schooling tends to be related to the shift in the conceptualization of disability and the evolving paradigms of education (Tadesse, 2019).

The growth of the SNE profession has included a succession of stages in which various ways of reacting to children with disabilities and learners experiencing learning challenges have been examined by education systems (Zelalem, 2014). There have been many debates on how to handle education of children with disabilities among educators and policy makers (Anderson & Boyle, 2020; Ekelindh & Brule, 2006; Heerkens, de Weerd, Huber, de Brouwer, van der Veen, Perenboom, van Gool, Ten Napel, van Bon-Martens, Stallinga & van Meeteren, 2018). According to Zelalem (2014), in the past, efforts have consisted of the establishment of specialised programme such as separate special institutions for the children served by specialist educators. Although this may have been well intentioned, the unfortunate consequences of special programme have resulted in social exclusion. The appropriateness of such a separate education system has been criticized in recent years, both from the viewpoint of human rights and legal points of view to achieve its aim of serving children special needs.

There is no overall agreement on how educational placement of deaf learners into integrated classes, regular school settings or more specialized arrangements affect their educational performances. There are a variety of perspectives about how individuals who are deaf should learn. Consistent and continuous debate has been conducted about whether to use natural sign language, voice, English word order signs, existing sign systems, or how to incorporate speech, speech reading, and auditory training with signing. In all these viewpoints, professionals, family members and individuals with hearing loss have continually reconciled the differences and determined how to proceed (Szymanski, Lutz, Shahan & Gala, 2013). Hintermair (2013) found low levels of academic difficulties among deaf learners attending integrated schools compared to those in special schools. Researchers, such as Mekonnen, Hannu, Elina & Matti (2015), found the level of academic difficulties lower at special schools compared to deaf learners' units. The overall historical picture shows development from scattered educational efforts for persons with different kinds of impairment, through philosophical curiosity, to the establishment of special schools and other institutions (Valiullinaa & Fedotovab, 2016).

2.13 DEAF LEARNERS IN ETHIOPIA

In Ethiopia, there is no reliable data indicating the total number of school-aged deaf learners. The national average gross enrolment rate at the primary level for all types of children with disabilities was approximately 3.2% (MoE, 2012), implying that 96.8% of children with disabilities remain unserved by the education system, often remaining out of school. For the minority of deaf learners who have accessed education, placement options can be categorised into three broad types: (a) schools exclusively for deaf learners, which includes day/residential schools; (b) special classes

within the regular public schools, allowing deaf learners and learners without hearing impairments social interaction during their free time and extracurricular activities; and (c) regular public schools, typically with limited deaf learners peers integrated with learners without hearing impairment (often referred to as inclusive) (MoE, 2016). The special classes provide education for deaf learners up to grade four before integrating them with regular learners without hearing impairment beginning in grade five (MoE,2018).

In 2013, there were 13 special schools and 302 special classes. Traditionally, deaf learners have been placed primarily in schools prepared exclusively for deaf learners. In recent years, placement has shifted considerably, and the global trend has been to educate deaf learners in inclusive settings (Marschark & Knoors, 2012), which is likely to be the case for Ethiopia in the future. In Ethiopia, however, the challenge is getting deaf learners to any form of schools. To address this issue, the Ministry of Education (MoE), with support from Finland, designed the first SNE Programme Strategy in 2006 (Mekonnen, et al., 2015). The strategy focuses on the promotion of inclusive education to meet the Millennium Development Goals and the Education for All Goals. In 2012, the strategy was revised and re-released in April 2013 along with implementation guidelines (MoE, 2012).

The government also has referred to international conventions, declarations, and statements related to inclusive education after ratifying the UN Convention on the Rights of the Child in 1991 and the UN Convention on the Rights of Persons with Disabilities in 2010. The Ethiopian Constitution (Article 9) affirms that all international agreements ratified by Ethiopia are an integral part of the law. Within this legal framework, the government, along with other stakeholders, is moving forward in addressing the educational needs of deaf learners. Nonetheless, deaf learners face several major challenges in Ethiopian regular classrooms, including the inaccessibility of sign language. The size of the regular class may be very large (60–80 learners per class), and most of the regular class teachers do not know sign language or understand the communicational needs of deaf learners. There are no educational sign language interpreters in the country, except in the capital city, Addis Ababa. This situation has created a challenge for most deaf learners in continuing their schooling. Due to lack of appropriate support, more specifically support in sign language and communication, deaf children (especially those who are pre-lingual) find learning very difficult in an environment that demands hearing; therefore, many of them are forced to drop out of school (Mulat, 2014).

The history of SNE reveals that deaf education is relatively a recent phenomenon in the country. During the earlier times when the lives and work of Ethiopian society were dominated by the Christian faith, education of the persons with visual and physical impairments as well as those who were gifted and talented was the responsibility of the Ethiopia Orthodox Church. However, because of the essence of education, people with hearing impairment and the intellectual impairment were not part of church education. The teaching technique of church education was mainly oral (Zelalem, 2014).

International missionaries were the pioneer to establish institutional schools in Ethiopia for individuals with special needs. A significant move in the history of the SNE in Ethiopia was the opening of institutional schools. Like schools for other disabilities, education for the hearing-impaired was introduced by foreign missionaries. Gradually, schools for the deaf were opened in the regional state cities and town by missionaries. In 1951 E.C., a special school for learners with hearing impairments was established in Addis Ababa around Kechenie area by followers of Mekane Yesus Church (Tadesse, 2019). The Alpha School for the Deaf was opened in 1967. Deaf education in Ethiopia is better than it was decades ago, but it still has far to go (Tefera, 2019) because those who go to school are also at high risk of dropping out.

Although Ethiopia adopted international foreign proclamations promoting the rights of learners with impairments to education and supported the 1994 National SNE System, children with disabilities have also been excluded from education (MoE, 2012). Consequently, the Federation of Ethiopian National Associations of People with Disabilities was founded by Ethiopia. It is an umbrella organization which indorses the people with disabilities' rights and promotes their well-being. It focuses mainly on awareness-raising, capacity-building and resource mobilisation. Its member organisations include the Ethiopian National Association of the Deaf (Shimelis, 2015).

In Ethiopia, education for children with disabilities, for example, visual and hearing impairments has been served by special schools for the last four decades. Nevertheless, discrimination and stigmatisation are still common in inclusive schools. This is exacerbated by poor school infrastructure, facilities and adapted teaching, the absence of a financing mechanism to support SNE and inclusive education and learning materials for SNE along with the absence of standards and guidelines are challenges in supporting learners with disabilities (ESDP-V, 2008-2012) as shown in a series of School Improvement Programme reports.

According to Tadesse (2019), learners with hearing impairments have two options to get their education. These are attending special schools for learners with hearing impairments or attending mainstream schools and attending with learners without hearing impairment. The first option focuses on developing a culture of including the hearing impairment in education. However, in recent years, the accessibility of education for people with disabilities has been ensured in inclusive schools. Nowadays, the learners with deaf can learn in special classes and integrated classrooms through sign language.

International trends concerning children's rights, the Ethiopian Constitution, the ETP, and the Strategy of SNE Programme of the MoE, play a significant role in the provision of education for deaf people. Currently several schools are run by the government as well as nongovernmental organisations in all regional states of Ethiopia. According to data from the MoE (2018), there are more than 100 schools in Ethiopia where most of the schools teach in special classes or units up to Grade 4. The Ethiopian government is placing children with disabilities including those who are deaf in general education settings so as to provide them with the opportunity to learn in the same school and classrooms with their peers without disabilities (Zelalem, 2014).

2.14 DEAF LEARNERS' TRENDS IN INCLUSIVE SCHOOLS

The primary goal of inclusive education is to accommodate children with disabilities into ordinary school environments. This accommodation in the inclusive school environment of children with disabilities along with those having no disabilities enhances the replacement of special schools and classes in comprehensive schools. Inclusive schools are ordinary schools in which children with disabilities are put in regular classes with children without disabilities, in whole or in part (UNICEF, 2014).

The accommodation and inclusion in ordinary schools of children with hearing impairments has become a debate among teachers, practitioners and parents because it is not an easy task to satisfy the special desires of children with hearing disabilities, particularly those who are integrated with learners without hearing impairment in ordinary schools (Sentayehu, 2015:2). Inclusion is successful when learners with hearing impairments completely engage and participate in the classroom, when the teacher collaborates with special needs education teacher in the classroom and when the classroom atmosphere and curriculum can be focused to the educational desires of the learners. Regarding to communication, Antia & Kreimeyer (2015) noted that one of the main objectives of an inclusive classroom is to create a means of communication that enables learners with hearing impairments to communicate directly with

each other. However, learners with hearing impairments communicate in ways that are distinct from those around them (Sentayehu, 2015), and this may slow down their social contact and growth.

2.15 BASIC EDUCATIONAL PLACEMENT OPTIONS FOR DEAF LEARNERS

The educational placement options used to teach deaf learners are special schools, integrated schools, inclusive schools which implements individualised education plan (IEP). Special schools are placement options which is important to provide quality education services to deaf learners. These schools take a specialised approach to teaching and learning and are able to create a less restrictive environment that can accommodate a wide variety of communication modes and needs (Nyakundi, Awori & Chege, 2016). Meanings of integrated schools tell us the difference between special schools and inclusive schools as a placement option to education for learners with disabilities. The aims of integrated schools are to view the child as an individual and ensure that his or her needs are met in the most appropriate way for that child. This often takes the form of access to a general education classroom but having separate focused lessons for core subjects that bridge the gaps in learning differences (Sentayehu, 2015). In this environment, the deaf learner can enjoy direct teaching in sign language and access to education specialists. This approach is also seen to accommodate and support social and cultural factors that cannot be addressed within regular school classrooms (ENAD,2015). Inclusive schools are places that aims to bring deaf children into integrated classroom environments with adaptations and services brought into the classroom. The deaf learner is taught alongside with learners without hearing impairment, with support from a specialist assistant. The goal of inclusive schools is to bring the deaf learners into an accessible environment and giving them the same learning opportunities as learners without hearing impairment MoE (2012). The use of IEPs is an internationally standard approach that focuses on the learner as an individual and creates a framework of support to bring the learner from their current performance to identified and agreed goals. An IEP is a blue print for the special education that every learner with disabilities receives. Scholars such as Alkhatani & Kheirallah (2016) and Wilmhurst & Brue (2018) argued that IEPs are based on the comprehensive assessment by interdisciplinary team. In the preparation of IEPs, parents are rich source of information regarding the development, skill, behaviour style, and need of their child and their report should be used in developing the IEP. This IEP is created through liaison and cooperation from classroom teachers, paraprofessionals, educational psychologists, parents and the children themselves. Not only focus is given to academic progress and attainment but also to social and non-academic factors. This is a holistic view that looks at the child as a person who needs to be assisted to develop into a rounded and independent individual, appropriate to his or her levels of

ability (Sentayehu, 2015).

According to the MoE (2012), identification of children with disabilities helps teachers to find practical solutions in cooperation with other professionals; for example, the provision of resources, materials and seating arrangements. In Ethiopia, however, there has never been an identification and placing program in the school system that could allow an assessment at the point of entry to assist individual children who need support nor are the schools equipped to provide the required assistance to meet the special needs of the children.

Generally, in teaching children with disabilities, the curriculum content is almost identical to that of their peers but there is a need of modification of materials as well as mode of presentation. However, in teaching mathematics, science, social science and language the material and method used vary based on the nature of subject content. The role of the teacher is to provide concrete and accurate information to learners who have different types of impairments to learn better and integrate with other individuals. Sighted peers and teachers should provide assistance in and out of the classroom for children with disabilities in both academic and non-academic issues (MoE, 2012).

2.16 CLASSROOM EQUIPMENTS IN INCLUSIVE SETTING

If the instructional materials and methodologies carefully address their needs and abilities, the communication skills of deaf learners can be built properly. Relevant linguistic, environmental, psychomotor behaviors and other elements should be part of these items. In terms of training approaches, children with congenital hearing impairments have special needs of their own. (Mohamed, 2015).

Teachers using of the teaching materials to teach learners who have impairments of hearing in inclusive surroundings with incorporating their need will decrease feelings of depression and frustration while it increases academic achievement. This has shown that educators play a significant role in maintaining an effective communicative, efficient, promising and pleasant schoolroom (Matthews, 2016). They also added that, during lectures and other teaching sessions learners with hearing impairments often use their sight as the main strategies of getting educational services. In a visual format such as chalkboard, overheads, power point slides, handouts, captioned images, diagrams, and other visual aids, lesson knowledge is provided as useful teaching resources with acceptable seating arrangements in the room so everybody in the

class can be seen by learners with hearing impairments. Deaf learners know where it is best to sit; this is always close to the front, slightly to the instructor's side (Colclasure, Thoron, & Larose, 2016).

For a teacher who have learners with a hearing impairment in the class, audiovisual equipment and staff are of special significance. They can put important notes or main vocabulary terms or phrases on the overhead projector while the instructor lectures. An overhead projector enables the instructor, when writing on the projector, to maintain eye contact with learners. The trainer should be sure that there is enough light when using slides or movies to allow the learner with hearing impairments to see faces clearly while the teacher makes remarks. In general, as much as possible, complementary graphs and pictures should be used (Colclasure, Thoron, & Larose, 2016). Teachers of deaf learners are adaptable and must have adaptable instructional materials and equipment intended for use by learners with hearing impairments. Teaching strategies can vary depending on the diagnosis of the learning problems and the possibility of interaction available to the teacher and learner. Instruction must be structured at a level to allow understanding and yet at a level to challenge the learner to learn and develop intellectually and socially (Hidayati & Hidayatulloh, 2017).

While there are many resources available for learners without hearing impairment and their teachers, very few resources are available for deaf learners and deaf teachers. To teach deaf learners, the availability of equipment, materials and educational resources is very important. These include sign language dictionary that deaf learners and teachers can use it as a reference to develop their sign language skill and interpreters from support staff to access spoken languages. Along this, deaf learners should be able to read written languages when they are being taught in inclusive education settings. (Mohamed, 2013). Usman (2016) stated that every level of impairment of hearing has an effect on the ability of a learner to navigate their environment in a variety of ways. Learners with hearing impairment may have reduced opportunities to learn incidentally via television, radio, audiotapes, videos, theater presentations which will help them develop correct speech and language patterns. All teachers, families and learners in the school community have an important role to play in creating a healthy and welcoming atmosphere and providing sufficient materials and facilities to facilitate the learning of deaf learners.

In addition to materials and equipment for deaf learners, specialist teachers who are teachers of the deaf are an integral and necessary part of the support framework for successful and effective deaf education. Applied specialist expertise can be provided by deaf teachers across a variety of

related disciplines, including:

- development of language and communication
- practical experience in the promotion of deaf children's language, communication and speech;
- practical experience with the use of hearing aids and other amplification devices in daily environments;
- information on the essence and effect of deafness, and the scope of communication as well as other resources provided to assist parents make informed decisions for deaf children and their families.
- realistic knowledge of working in various environments for a wide variety of deaf children (including preschool children);
- awareness of the results that can reasonably be predicted for deaf children when care is maintained and built over time effectively;
- up-to-date local understanding of the variety of options available to deaf children and their families for education and other support; and
- assisting families in acknowledging their deaf child's positive accomplishments or progress (Usmaan, 2016).

2.17 PHYSICAL LEARNING ENVIRONMENT TO DEAF LEARNERS

The physical learning environment or set up of the classroom can either provide access to or serve as a barrier to learning. The school physical learning environment might hinder or maximise the learning of deaf learners. In the school environment, the physical facilities go a long way to helping learners to learn. In every school system, physical facilities vary from the school site, that is, school buildings, classrooms, libraries, laboratories, toilet facilities, and learning materials, to other infrastructure that is likely to inspire learners to learn. A good classroom environment is safe physically and psychologically whereas an inaccessible physical learning environment can severely limit learners with mild and severe hearing impairment's ability to access classroom content and learn effectively. When teachers are teaching deaf learners, they need to identify the elements in the school physical environment that hinder learner learning and how can they be addressed and what modifications or adaptations are needed in the physical classroom set up (Akomolafe & Adesua, 2016).

In support of the above, well sited school buildings with a pleasing aesthetic appearance, laboratories and playgrounds may contribute to improving the effectiveness of deaf learners in the school system. The accessibility of school buildings is very beneficial as they might improve

successful instructional process. Therefore, for efficient academic work and teaching to take place in any educational setting, the provision of suitable and quality physical facilities is necessary (Akomolafe & Adesua, 2016).

The existence of a sufficient number of physical facilities has a substantial impact on the academic success of learners. Such physical facilities should be offered to state primary schools where the shortage of school infrastructure has been a major factor in learners' poor academic results. There will be a continuous deterioration in the academic performance of learners without sufficient physical resources (facilities). It appears that the physical facilities in the school setting go a long way to motivate learners to learn. Physical facilities in any school system range from the school plant, that is the school buildings, classroom, library, laboratories, toilet facilities, learning materials to other infrastructures that would likely motivate learners towards learning (Akomolafe & Adesua, 2016). In support of this argument, Usman (2016) stressed the need for physical materials to be available in the school system in order to improve the job performance of teachers. School physical resources has a direct impact on the learning environment and is a key determinant of educational outcomes. This will undoubtedly increase learners' academic results.

According to Usman (2016), physical facilities in any school system include the school plant, which includes the school buildings, classrooms, libraries, laboratories, toilets, learning materials, and other facilities that are likely to encourage children to learn. Most physical facilities that are relevant to good learning/academic achievement of learners appear to be insufficient in today's schools. The internal organisation of Ethiopian schools has been found to be below the required standard; for example, toilet facilities are lacking in several schools (MoE, 2012).

In an acoustic-friendly environment, teaching and learning would be very helpful in accelerating learning for learners with hearing impairments and promoting their participation in the classroom. Furthermore, the seating position and lighting in a standard classroom are also very critical for interaction. For lipreading, some deaf learners may need to see faces. Lipreading requires studying the face and mouth of a person to understand what words are being spoken (Tadesse, 2019). In addition, to engross voice and reduce high rubbing noise from machinery on rough physical environments, carpets or acoustic wall and ceiling coverings need to be added; for example, by adding rubber stoppers to the legs of the desks and chairs of learners. In order to encourage learners to lipread and to read signings, the classrooms should also be well lit.

Arrangements should be also made for published or captioned school announcements (Asif, 2015). In short, one of the prerequisites for quality education in teaching deaf learners is the physical learning environment. The space classroom layout, seating arrangements and unnecessary noise should not restrict the movement and work of deaf learners; rather, it should facilitate and encourage them (MoE, 2016).

2.18 EDUCATIONAL SERVICES AND SUPPORTS TO DEAF LEARNERS

Educators have long been aware that identifying the educational needs of deaf learners and providing quality services, supports, and technology can be challenging. Resource rooms should provide educational support services to educational success and independent life of deaf learners. In line with this idea, Alasim (2018) suggested that the inclusive movement has increased the need for special services to enable deaf learners to succeed in the regular classrooms. For this reason, they must have educational support services and materials in an accessible format.

The resource or itinerant teacher mostly provides assistance to deaf learners. Resource rooms and itinerant teacher services provide

- specialised instruction in hearing aids and lipreading and cued speech;
- instruction in listening skills;
- parent counselling;
- instruction using adapted materials and equipment;
- development of visual efficiency for low vision learners through systematic instruction; and
- supplementary or introductory instruction before regular lessons (MoE, 2012).

Resource room services should be made available in parallel with inclusive education. Pertinent to this idea, MoE (2012) suggested that learners with special needs require basic support services for learning to be effective in an inclusive setting. Some important services that should be made available to the learner with special needs in the ordinary classes are educational resources; parental support; technical support such as a sign language interpreter; a teacher-aide; peer support; physiotherapy; guidance and counselling; occupational and speech therapy; community support; and varied equipment.

An educational interpreter of sign language is a trained professional who acts as a link in the classroom between a teacher and learners with hearing impairments or between deaf learners and other members of society who are hearing impaired. In several ways, a sign-language interpreter

functions as a bond between deaf learners and their listening counterparts. In the determination of the level of their hearing impairment, most learners with hearing disorders do not gain much from oral communication. Therefore, by mediating between the two sides, the sign-language interpreter helps to resolve the contact gap. The sign-language interpreter position often complements learners with hearing disability in certain cases by using assistive technology devices in an inclusive educational environment (Ewa, 2016). There are two types of interpreters for sign language. These are sign-language oral interpreters and sign-language interpreters of cued voice. The oral sign-language interpreter talks during signing to learners with hearing impairments using facial and other body gestures. On the other hand, the cued speech sign-language translator mouths the words to learners with hearing impairments and uses the signs of the hand (Ewa, 2016).

Regarding the role of sign-language interpreter, Kortessalo, (2015) emphasised the sign-language interpreter issues in assisting deaf learners to participate in the inclusive classroom as follows:

- Interpreters should be in the line of vision of the learners. Since all communication comes through the eyes of deaf individuals, it is important for the interpreter to sit or stand near the center of attention in order for deaf individuals to observe the event's action.
- During class, the translator would not be able to provide the learner with a consistent understanding if the teacher talks too quickly, if anyone speaks inaudibly, or if many learners speak at once.

The teaching-learning process and school library service are inseparable to fulfill the learners' special reading needs. The goal of the library is to encourage reading by providing materials because text books alone cannot satisfy individual needs, and teachers may not be fully aware of the diversified personal reading needs to satisfy them. Thus, librarians should fulfil these gaps by providing appropriate materials. Martin, Chava, Lalwani and Waltzman (2014) stated that socially conscious librarians seek to serve all the public including children with disabilities and they viewed the library as one of the several institutions working with society aimed at improving social and academic conditions. With regard to library services for learners who have different disabilities, special emphasis would be arranged to the availability of reading materials for the deaf since reading is the greatest source of profitable and recreational occupation open to them. Generally, library services for deaf learners should provide appropriate reading materials related to their participants. The materials could be sign books and other materials with printed sign symbols. The educational needs of deaf learners will be satisfied by providing such instructional materials.

In order to alleviate the challenges deaf learners face in learning, teachers should have a commitment to establish a support network with different supports as a means of creating a welcoming teaching and learning environment. However, Holmes (2013) suggested that, in primary schools, many teachers would not function effectively and efficiently without the support of others because the involvement of support teachers, parents, professionals and other agencies in the mainstream and special classroom has a positive effect on the education of deaf learners.

The literature in the field of Special Education indicates that the process of parental involvement in the formal education of their children started to be officially recorded in the beginning of the 20th century, and several researchers have started to investigate the relationships between parents – learners – teachers and the effects of parental involvement upon the academic performance and psycho-social development of the children (Taller-Azulay & Rusu, 2015). Moreover, MoE (2016) stated that parents and community should assist teachers and principals in fulfilling the special needs of their children. In addition, the district educational office should provide technical, professional, material and capacity-building support to schools and clusters centres for the effective implementation of special education at school level. Furthermore, with regard to parents, Taller-Azulay & Rusu (2015) pointed out that parental participation is necessary for the exchange of information, skills, experiences and decision-making in order for learners with hearing impairments to improve.

Support services are part of the teaching-learning process by which deaf learners benefit from the services. A cooperative work among teachers, supervisors, parents and the community will enhance the quality of education in general and better achievement of deaf learners in particular. The school should create a welcoming environment and encourage the implementation of services properly. Technical, educational material and financial support services make a great contribution to consider the unique desires of learners with hearing impairment. Parental interest in the instruction of children with hearing impairment would be of prodigious importance at home and at school (Zelalem, 2014).

2.18.1 Definition of Curriculum Modification

Curriculum modification can be defined in many ways depending on the changes made to the curriculum. A curriculum modification is a change to the classroom activity or materials in order to facilitate or maximize a learner's participation in planned activities, interactions, and routines

(Kuar, 2021). In addition, curriculum modification, along with establishing supporting and connections between the current instruction and individuals participated in the instructional process includes combinations of changed content, conceptual complexity, educational objectives, and teaching methods. The following should also be considered while modifying the curriculum:

- the instructional methods modification such as
 - distraction reduction;
 - changing the pace of lessons;
 - delivering of smaller quantities of work;
 - clarity of directions;
 - changing modes of input and response;
- modification of content entails
 - teaching-learning modifying systems;
 - simplification of or degree of reading and concepts;
 - teaching various sets of knowledge and skills required by learners, and
- establishing clear goals, such as the adaptation by teachers of the structured curriculum of a school into instructional goals and components of educational happenings that are appropriate for each learner or specific groups of learners;
- changes in a number of educational elements in a curriculum, such as
 - knowledge of content;
 - instructional methods;
 - learning outcomes of learners'; and
 - materials and programmes alteration (Westwood, 2011).

2.18.2 Types of Curriculum Modifications

There are four forms of curriculum modifications categorised based on the association among adapted curriculum and overall curriculum in terms of disparities and similarities in teaching materials, consisting content knowledge and conceptual complexity, instructional outcomes, containing instructional objectives, and instructional approaches King-Sears (2001: 74). There is accommodation of the curriculum, adaptation of the curriculum, outcomes of the parallel curriculum and overlapping curricula. The purpose of the modification of the curriculum is to enable a person to prepare for academic, physical or behavioral challenges and to build educational experiences that support the individual to use existing skill repertoires while allowing new skills and knowledge to grow.

2.18.2.1 Accommodation of Curriculum

Learners with disabilities can benefit from the curriculum and activities offered to the general learner population with the help of curriculum accommodations. Accommodations are made to ensure that all learners have equal access to the general curriculum. A modification that supports a learner in overcoming or working around a disability is referred to as an accommodation (Ambady & Sherly, 2018). The word curriculum accommodation is intended to mean an alteration to the implementation of learner success in education or process which does not modify the curriculum's content or conceptual complexity. Both teachers and learners will play a role in modifying instructional approaches and assess the degree of accessibility in their classroom for learners with disabilities in order to achieve the same proposed goal, the educational outcomes proposed in the general curriculum. In other words, curriculum modification is recommended when curriculum enhancement alone is not sufficient for achieving inclusion targets (King-Sears, 2001).

Some examples of curriculum modifications are:

- using assistive/adaptive technologies;
- inclusion of various types of teaching devices and techniques (audio or print), achievement on a math worksheet of any other word problem;
- ensuring oral performance rather than written technology;
- using graphic organisers and Graphic characterization; and

Change the quantity of input, the learning timeframe, and support levels for the needs of individual learners (Mcglynn & Kelly, 2019).

2.18.2.2 Curriculum Adaptation

Adaptation to the curriculum is an alteration to the instructional practices and expected objectives of learner success that does not modify the content, though somewhat changes the curriculum's conceptual complexity. Similar to curriculum accommodation, curriculum adaptation takes place inside similar learning content and requires the alteration of instructional methods. Adaptations typically take more work and time for teachers than simply modifying the methods of instruction or accessibility in curriculum accommodation. An adaptation is a mechanism guided by objectives: teachers first need to define intended goals for individual learners to decide on an adjustment to the instruction (Mcglynn & Kelly, 2019). Examples of curriculum adaptation include offering differentiated assignments, house exercise, and tests, and administering modified or distinct teaching properties and facilities for each schoolchild (King-Sears, 2001). Adaptations are alterations made to the learning environment, available equipment, or how assignments/assessments are completed by a learner (Mcglynn & Kelly, 2019).

2.18.2.3 Parallel Curriculum

Parallel curriculum or parallel instruction are another type of curriculum adaptation. Parallel curriculum results are changes to the provision of instructional guidelines and to planned learner success objectives. Parallel curriculum findings do not alter the knowhow of content and the fundamental values of the instructional objectives for different learners, including adaptation. The degree of shift in conceptual complexity is the distinction between adaptation and parallel curriculum. Although adaptation marginally amends the theoretical complexity of curriculum, parallel curriculum products require a major shift in theoretical trouble. Examples of outcomes for parallel curricula are:

- a classroom situation where most learners construct science projects in the same classroom that require the study of cause-and-effect issues e.g., a learner with multiple disabilities can engage in a science project focusing on one experimental process;
- providing a paper with all or part of a story to special needs learners in English/Language Arts classrooms and requesting learners to locate desired words or letters when the story is being read by other learners.
- have full worksheets for learners with exceptional need for numbering from 1 to 10, while a math worksheet on fractions is allocated to other learners; and
- in a citizenship/current affairs class, motivating several participants to record three things recalled from listening to others reading the newspaper orally, while other learners read aloud and answer a range of questions (King-Sears, 2001).

2.18.2.4 Overlapping Curriculum

Overlapping curriculum is the other name for overlapping instruction. Overlapping curriculum is a curriculum modification so that the modification produces overlapping or similar expectations for diverse learners to learn results. Curriculum overlapping is not a clear modification in the general curriculum. Rather for learners with different needs, it is an integration of unique individual objectives and goals. The curriculum elements, for example contextual information, theoretical challenges, and instructional strategies for learners with disabilities, are structured somewhat inversely from those for learners in general education. Teachers are able to design and provide shared instructional experiences such as cooperative learning and interventions facilitated by peers. The educational priorities and standards for children of diverse requirements converge with those learners in ordinary schools in such collaborative activities (King-Sears, 2001).

2.19 CURRICULUM MODIFICATION AND ITS BENEFITS FOR DEAF LEARNERS

Learners with disabilities have limited exposure to the general-education curriculum that inhibit their opportunity to learn. At the primary school level, learners with special learning needs frequent supports which increase their participation in inclusive classroom instruction through using adaptations of simplified or supplemented existing materials. Adapting the curriculum involves modifying the content, instructional strategies, and the different ways of assessing what the learner has learned (Kuar, 2021). According to Edwards (2018), curriculum modification is necessary in order to build more inclusive learning environments and to help both learners with and without disabilities and their teachers with the current general curriculum in different educational contexts. Appropriate curriculum development for learners with special needs involves differentiation of content, teaching and learning strategies, and learner products in a learner-centred environment. Curriculum modifications can be put into practice for different purposes ranging from altered content knowledge, conceptual difficulty, educational goals, to instructional methods and assessment (Saziso & Chimhenga, 2021).

Curriculum modification has an advantage for learners with impairments, learners without impairments and for teachers. When there is curriculum accommodation, there is full inclusion. Hehir, Schifter, Grindal, Ng and Eidelman (2014) found that in complete inclusion placement, learners with impairments outperformed learners with no impairments in a significantly different placement. On standardised, state-wide assessments, learners taught in full inclusion classrooms achieved higher scores and graduated from high school at higher rates than similar learners who were enrolled in classrooms that were substantially different.

For learners with disabilities, curriculum modification is an essential component for accessing the general education environment, accessing the instruction for mainstream schools, engaging with learners in the similar teaching room, and receiving guidance from teachers in mainstream education system. It is also recognized that the amount of time learners with disabilities spend in the general education classroom and their academic performance have positive associations. Increasing exposure and hours lost together in an environment of mainstream schools created more opportunities for disadvantaged learners to develop the professional knowledge and skills needed for post-secondary achievement and work readiness (Mcglynn & Kelly, 2019). Curriculum modification also benefits learners in general education by increasing learning efficiency, including commitment, encouragement, and accomplishment (Edwards, 2018). In a study by Cosier, Causton-Theoharis and Theoharis (2013), in motivating and engaging learners, teachers saw modified units as more successful. By questioning the learners and posing high

expectations, the updated units also seemed to address the needs of all learners. The modified units were believed by both learners with and without disabilities to be more fun, nuanced, stimulating, and demanding than a standard textbook unit. In addition, the children felt joy in achieving their concluding assignments.

2.20 SOCIAL INTERACTION OF DEAF LEARNERS IN INCLUSIVE SCHOOLS

The social exchange between two individuals, which can be of any length and where the participants' behavior is interdependent, is defined as interaction (Batten, Oakes, & Alexander, 2014). Furthermore, any attempt to gain an audience's concentration or to communicate by linguistic and/or non-linguistic means which refer to the meaning of interaction. Therefore, social exchange can be referred to as any exchange relationships, any non-linguistic or linguistic communication and social play. The desire to communicate with, make friends with and be accepted by peers is social contact. Deaf children often have few friends in inclusive education, have fewer contact with learners without hearing impairments, and are most of the time disallowed or overlooked than learners without hearing impairments (Yu-Han, Potmesil & Peters, 2014). However, studies on the social interactions of children who are deaf and hard of hearing in inclusive settings are scarce.

A central aspect of educational policy in many countries is the inclusion of children with disabilities, including deaf children. Due to the adoption of comprehensive educational policies, children with disabilities in general and deaf children are specifically taught in inclusive settings (Rebecca, 2015). While it has been found that children with mild hearing impairment and severe hearing impairment and hearing children associate more with peers of the same hearing status, there has been increased interaction among children with mild hearing impairment and severe hearing impairment and children without hearing impairment. Children with mild hearing impairment and severe hearing impairment, however, appear to be ignored most of the time than children without hearing impairments in the classroom and make fewer mates (Rebecca, 2015). The proportion of learners with mild and severe hearing impairments pursuing their education in regular classrooms with learners without hearing impairment has grown rapidly (Alasim, 2018; Eriks-Brophy & Whittingham, 2013). Due to early detection and intervention methods, financial stresses, parental demands, technological advances, and the development of legislation promoting inclusive schools for learners with special educational needs, the percentage of learners with mild and severe hearing impairments in the general education classroom and integration of them in the general education system is rising (Alasim, 2018).

The inclusive educational advantages of social interaction and communication with children with regular hearing include access to conventional verbal and behavioral models of learners without hearing impairment and the social recognition of children by learners without hearing impairment (Yu-Han, et al., 2014). However, putting deaf and difficult-of-hearing children in normal classrooms does not immediately lead to expressive social contact, recognition of colleagues, constructive inclusion or improvement in children's social and communication skills (Bobzien et al., 2013; Yu-Han et al., 2014). In social interaction, communication, facilitating interaction and communication, and preserving these connections and communication with listening peers in inclusive schools, children with mild and severe hearing impairment face great difficulties. The effective communication and social skills of deaf children and children with mild hearing impairment and the influence of the inclusive school environment are essential elements of social communication. Educating children in inclusive school environments who have mild and severe hearing impairment and peers without hearing impairment will enhance social communication and develop a positive inclusive atmosphere in the classroom (Yu-Han, et al., 2014).

While there is a rise in the placement in the general teaching classroom of mild and severe hearing impairment learners in many countries, numerous researches have revealed that these children face problems in engaging and communicating with teachers of ordinary schools and learners without hearing impairment (Fan,2014). The presence in standard education classes of mild and severe hearing impairment learners leads to their alienation and social exclusion from the families of the listening school. For this cause, deaf learners' alienation and social isolation from the hearing community have a detrimental effect on their ability to connect and engage, as well as on their academic achievements (Yakundi, Awori & Chege, 2016). It is therefore vital that the community in inclusive education system, especially educators that instruct in a classroom of inclusive education, establish circumstances and establish a diversity of approaches that remove obstacles to the participation and social interaction of learners with mild and severe types of hearing impairments (MoE,2015). In addition, educators in the school need to establish a regulatory system that helps learners facilitate meaningful contact between learners with mild and severe hearing impairment and learners without hearing impairment (Sentayehu,2015). Furthermore, in order to boost their understanding, and to enable them to speak and communicate with each other, teachers mainstream schools and teachers who are teaching learners with different types of impairments can provide knowledge for learners without hearing impairments about hearing impairment and features learners with mild and severe types of hearing impairment (Alasim, 2018).

Staff members play important roles in developing a positive atmosphere for disadvantaged children in a school environment. Many teachers seem to unwittingly build these obstacles despite their aim to communicate with deaf learners (Tewodros, 2014). Through a phenomenon called as the effects of hearing aids, teachers and peers of deaf learners assess deaf learners more favorably on indicators such as intelligence, achievement and personality (Bobzien et al., 2013). The cultural attitudes and beliefs of its residents affect the meaningful participation of deaf learners in schools and the society. If a culture shows disregard and discrimination against children with disabilities, then it will continue to propagate oppressive practices.

2.21 MAJOR OPPORTUNITIES FOR DEAF LEARNERS

Inclusive educational has both advantages and disadvantages in its implementations. One of the advantages of inclusive education in the support of social learning and social involvement in hearing society; it also eliminates minorities' segregation, the children become more tolerant to each other, when they are learning together. This in turn helps to shape their future life in the society (UNESCO 2019). Its disadvantages, on the other hand, is that inclusive education requires special service (inclusion into non-special schools and classes) that costs much for its special equipment and well-trained teachers who have the knowledge of sign language should be hired for translation purpose. The other problem can be lack of social preparation and information about the handicapped of the teachers and children and children with hearing impairment and their families have additional requirements to implement educational inclusion successfully (John & Sylod, 2013).

Educational opportunities for deaf children have been changed significantly by the introduction and the development of hearing screening technology (Archbold & Mayer, 2012). Inclusion is an instructional philosophy and ideology that offers group membership for all learners and greater educational and social performance opportunities. Inclusion is about ensuring that each learner feel accepted and that their particular desires and learning strategies are taken care of and respected (Gezahegne, 2013). Inclusive schools and classrooms enable learners with disabilities to have exposure to the same curriculum content and materials to which individuals are involved, accessibility to subject matter content taught by subject matter experts, and access to general education teacher training, the training and qualifications of which are very different from that of special education teachers. In inclusive environments, learners with disabilities are given the chance to be introduced to and participate in a wide variety of social experiences compared to segregated educational settings. These beneficial interactions can be characterised as:

- allowing face-to-face contact;
- Support experiences in which listening learners voluntarily provide direct assistance that facilitates social and affective relationships; and both deaf and learners without hearing impairment receive personal benefits from their relationship in the integrated schools like playing a game (Tadesse, 2019).

In the holistic development of the child, educating deaf learners in the inclusive education system plays a major role as they improve language skills, create social and affective relationships and benefit from learning basic educational tasks through the observation of learners without hearing impairment (Tadesse, 2019).

Ethiopia has ratified United Nations documents on international education policy including the EFA, the Convention on the Rights of the Child, the Rights of Persons with Disabilities, and the Sustainable Development Goals (SDGs). All documents have one common thread, that reads “all children in their immediate inclusive schools have the right to learn” (Deginesh, 2016). The ETP (MoE, 2018:14) stressed that the “increase of standard elementary schools to all people is not only a right but also a prerequisite for advancement” in order to achieve the objectives of these United Nations documents. Moreover, MoE (2016) made it clear that all school-age children, including girls with impairments, should have provisions to quality primary schooling in order to increase their role and participation in all education programmes.

Studies show that most learners learn and perform better when exposed to the richness of the general education curriculum as long as the required strategies and accommodations are in place. At no point does inclusion entail watering down the classroom curriculum or academic standards. Inclusion, on the other hand, improves learning for learners with disabilities and learners without disabilities. Children understand and then use their learning separately, and the aim is to deliver all children, along with their friends and neighbors, with the guidance they need to excel as learners and meet high expectations (Gezahegne, 2013).

The main impairment of a deaf child is the inability to understand or hear speech or sounds from his or her sense of hearing (Asrat, 2013). It has been an incredibly complicated, divisive and contentious problem around the globe to include deaf children in ordinary classrooms. In deaf communities around the world, many deaf adults are advocating for the rights of deaf children to be separately educated in special schools in which they can access knowledge through their most natural first language, the language of the deaf community (Asrat, 2013), but there are group of educators subscribing to the socio-cultural perspective advocating inclusion for better academic

performance and social development of the deaf. Wherever the placement is, education of deaf children is not without some constraints or challenges. These challenges range from the difficulties of obtaining the requisite social interaction between learners without hearing impairment and deaf learners in inclusive classes to the problems of considering all learners in an inclusive class suitable for the required instructional language (Asrat, 2013). Educational placement must adapt to the educational and social needs of deaf children in order for deaf children to achieve effective integration and equal opportunity. Schools that support the education of deaf learners should ensure a positive attitude towards deaf issues, school leadership and management should be in line with the needs of deaf people, the teaching-learning process should be sensitive to the needs of deaf children, good contact between schools, parents and practitioners should be in place. Differences were also noted across countries in terms of understanding and realising integration. Three wide categories of integration policies were defined in the six-country analysis of integration. These are one-track integration, centered solely on standard education and prevents segregation by all means, a two-track approach focused on both regular and special education plays a vital role in the attempts to integrate, and a multi-track system that includes a variety of services for children with disabilities (Alemayehu, 2016).

In the integration of PwDs, there are both benefits and challenges for learners with disabilities, learners without disabilities and teachers. Learners with impairments have the potential to form a broader group of friends, master activities that they may not have attempted in special education classes, take new risks, serve as a role model, encounter academic challenges, appreciate achievement satisfaction, learn to rely more on peers than teachers and the experience full citizenship (Tadesse & Dawit, 2016). On the other hand, learners without disabilities have the ability to consider other people's similarities and differences, to learn to step beyond their perceptions of people with disabilities, to improve their level of trust around people with disabilities; to act as role models, to focus on their own weaknesses and to gain a greater understanding of all people's citizenship (Tadesse, 2019). Teachers have the chance to feel confident in meeting new challenges set an example of non-discrimination and recognition of the differences between people, use imagination in their teaching, work closely with parents to recognize the strength and needs of learners, collaborate with a larger circle of teachers and specialists, develop cooperative relationships with learners, eliminating preconceived notions about learners in special education, learn about new resources that support all learners, introduce new instruction approaches, individualize teaching for all learners; adjust diverse learning styles, and make major changes to the life of a learner with disabilities and those in the classroom (Alemayehu,2016).

2.22 MAJOR CHALLENGES FACED BY DEAF LEARNERS

Deaf learners' challenges can take a variety of forms. They may be physical, technical, structural, financial, or attitudinal, or they can emerge from the failure of an education provider to make the required accommodation available in a timely manner. Deaf and hard-of-hearing learners without hearing impairment education faces obstacles, such as cultural misconceptions, barriers to curricular entry, incompetence of teachers in the language of instruction, and low standards (Adoyo & Maina, 2019). Financial constraints are a prime explanation for delayed and reduced special education programs in inclusive environments for learners with disabilities. Sometimes, accommodation choices are taken based on financial constraints rather than on an evaluation of the real special needs of learners with special needs. In the education system, learners with disabilities continue to experience negative perceptions and prejudices. Lack of disability awareness and sensitivity on the part of some educators, staff and learners without disabilities may make it difficult for children with special needs to have equal access to educational services. In Ethiopia, despite recent changes in public perception, there is a pervasive negative social attitude towards PwDs (MoE, 2017).

Generally, it is not difficult to see that the main challenges deaf learners face in Ethiopia are poor communication, inconvenient learning environments, attitudinal factors, lack of support services, traditional instructional procedure, ill-equipped resource rooms, lack of clear policies, insufficient human financial and material supports inconvenient organisation of the school, attitudinal factors and absence of awareness and expertise in the education of special needs children. These barriers might affect directly or indirectly children with disabilities in the educational process.

2.22.1 Barriers Identified by the MoE

The MoE (2012) identified eleven barriers that hinder progress of deaf learners' education. These are:

- poor communication between the teacher and the learner;
- undesirable perceptions among educators, parents and other stakeholders;
- unfriendly learning environment and school related factors: delayed identification and intervention;
- lack of commitment to implement the strategy;
- poor community involvement;
- school management;

- curriculum barriers;
- poor educational approaches and evaluation;
- discriminative cultural factors, political and economic factors; and
- insufficient/lack of resources.

In addition to the above-mentioned barriers of learning, influences along with overcrowded classrooms, test-based lessons, and rigid instruction are problems that are prevalent in Ethiopian schools for learners with disabilities. It is also possible to enforce inclusion strategies top-down from the MoE to schools without teacher input (Dagneu, 2013). Thus, teachers are resistant to implementing inclusive education and to transforming regular schools into inclusive schools which may reflect their disappointment at being withdrawn from the planning process and not having appropriate training on inclusive classroom management. Inclusive classroom teachers often face resource shortages, and appropriate learning resources are not offered to learners with disabilities (Dagneu, 2013). Some of the physical environment challenges are linked to school practices and habits, which have had an impact on the organization of events.

2.22.2 Societal Beliefs

There is a clear influence of social attitudes about children with different types of impairments on the integration with learners without impairments. In Ethiopia, and perhaps the rest of the world, disability is sometimes viewed as a curse. Children with disabilities and parents with disabled children are frequently stigmatized. Children with disabilities need to be able to show the world their potential to complete school effectively, find profitable jobs, and become economically independent in order to break down barriers to stigma. However, with less than 1% of children with disabilities enrolled in primary school in Ethiopia, this is a major challenge to address, combined with the lack of funding from secondary schools, vocational training colleges, teacher training colleges, universities and other options for educational opportunities (Aynie, 2016).

While the Ethiopian MoE SNE Strategy (2006) opened the school doors to learners with disabilities, social attitudes remained unchanged and many children with disabilities are still kept at home. Rather than being taken to schools, many school-aged children with disabilities are held in their homes. Therefore, it is very important to collaborate with parents to bring children with disabilities into classrooms and provide them with support in inclusive schools (MoE and UNESCO, 2012). In their stay at home or failure to enroll children with disabilities in comprehensive schools, a variety of variables may be involved, such as:

- the stigma and discrimination associated with children with impairments and families of children with impairments;

- lack of community assistance;
- inability to include special needs children in inclusive schools; and
- distance from schools that provide inclusion of children with disability (Aynie, 2016).

In Ethiopia, inclusive schools are not well-resourced and do not provide a welcoming setting for children with disability. Because of this, parents choose to send children with disabilities to special schools with boarding facilities (Aynie, 2016) which may be distant from their homes. In inclusive schools, teachers should use child-centred teaching methods rather than teacher-centred teaching methodology. In a survey of Ethiopian mainstream schools, 81.7 percent of teachers indicated that they did not use learner-centered teaching methodology and did not recognize the specific needs of learners in their teaching; in addition, 83.9 percent of learners with disabilities said the teaching methods of teachers did not match their needs and teaching methods and 93.5% of learners with disability reported that they faced challenges but receive appropriate and enough support from their parents, teachers and peers at home, in the inclusive schools and inclusive classrooms respectively (Dagneu, 2013).

2.22.3 Financial Barriers

In emerging countries, the distribution of services and the belief that adults with disabilities are a liability to the system is a common obstacle to inclusive education (Chataika, Mckenzie, Swart & Lyner-Cleophas, 2012). This view overlooks the possibility that certain cases in which people with disabilities have completed their education though they have not been economically self-sufficient perhaps due to the system failing to provide them with the educational opportunities but a person provides encouragement to engage in development efforts and develop their own skills (Alemayehu, 2016).

2.22.4 Language Barriers

Deaf learners still face challenges related to the school community and learners without hearing impairment lack sign-language skills. In the academic setting, the curriculum of the school, which includes all the planned and unplanned activities, becomes a major barrier because of the language use (Solomon, 2017). Owing to the absence of sign-language abilities in the teaching-learning process from within and outside the classroom, learners with hearing impairments and their teachers appear to struggle to develop shared understanding (Girmay, 2012).

2.22.5 Problems Experienced by Teachers

Lack of trained teachers, inaccessibility of school environment, inflexible financial system and lack of awareness among the inclusive school principals about the necessity of devising special provision are the observed major challenges that inclusive schools have (Wondwosen, 2014). In addition to challenges of deaf learners, teachers of deaf learners also faced challenges in teaching learners with hearing impairments. The challenges are associated with absences in preparing audiovisual material that can enable deaf learners and hard-of-learners without hearing impairment to see the pace, tone, pause, silence, rhythm, timing; it extends to problem of clear captions for every narration, and teaching aids, and teaching how to pronounce words (Solomon, 2017). Teaching-learning materials and equipment such as assistive devices like hearing aids are not easily available in the national market. As a result, inclusive schools are under-resourced. (MoE, 2016).

The absence of enforcing regulations to oblige the governmental education stakeholders to provide admission to schooling and support for special educational needs learners, inadequate training of teachers in SNE, unfavourable school facilities and absence of inputs appropriate to SNE learners are the limitations of inclusive schools that the Ethiopian MoE mentioned. Political leaders at all levels have not led the implementation of inclusive education with commitment and/ or have not paid due attention to SNE learners.

According to Tewodros (2014), learners with hearing impairments face challenges after they are assigned to inclusive classes. These challenges occurred due to lack of knowledge of teachers. Demisew (2014) found that the challenges to implement inclusive education are inflexible curriculum, problems of language and communication, and lack of human resources. Regular teachers are teaching both learners without hearing impairment and learners with hearing impairments without having basic training on SNE.

2.23 HOW THE BARRIERS COULD BE ADDRESSED

The structural problems in schools and classrooms, the attitudes, beliefs, and motivations of inclusive school teachers and administrators to accommodate deaf learners, the gaps in awareness and skills of instruction and curriculum adaptation, as well as the lack of support services are challenges for students with hearing impairments in inclusive environments (Alemayehu, 2016). The most daunting obstacles for deaf learners are survival in an inclusive learning community where the medium of instruction language is solely employed. The inclusive classroom environment poses a strong challenge as well as a danger to their education, language learning and

social growth in the absence of sign-language usage and/or interpretation services. Indeed, Ethiopia's education of deaf learners is marked by a high drop-out rate and poor academic results, and there is much to be done to correct the current state of affairs (Asrat, 2013).

While the challenges of inclusive education may seem numerous within the Ethiopian education system, they are very far from insurmountable. The SNE Strategy (2006) of the MOE outlines a proposal to step away from the special school situation mentioned above and establish a framework in which children with disability can live in their homes, their families and attend inclusive neighborhood schools. MoE (2012) suggests possible ways to overcome barriers children with disabilities faced to their education in Ethiopia. These are flexible and child-centred curriculum that considers learners diversity, improve communication between teacher and learner's, developing education and legal policies that enhance inclusion, early identification and intervention, flexibility and diversity of educational approaches, what is more, availability of human and material resources sensitisation of the community on special needs issues and availing funds for inclusive education can help to solve barriers. The MoE called for inclusive education to become part of the curriculum for teacher training in vocational training colleges, teacher training colleges and universities in Ethiopia, which have started to set up degree programs for special education needs. In addition, in order to increase the knowledge and skills of inclusive school teachers, the MoE is encouraging and budgeting for vocational training colleges, colleges of teacher education, universities and regional bureaus of education to provide training to teachers, parents, learners with disabilities and SNE experts on the theory of inclusive education and inclusive school and classroom management.

According to Aynie (2016), in order to promote the participation of children with special needs, the integration of the child, the environment, and task factors should be considered by occupational therapists rather than concentrating on individual aspects. Adaptations to the social environment, the physical environment, educational instruments and tasks would make it possible for many deaf learners to work on school activities effectively. However, there could be minimal benefits from a lack of time and knowledge about how to adapt and use the social environment, the physical environment, educational instruments and assignments.

2.24 THEORETICAL FRAMEWORK

Theoretical framework is one of the most important components in the development of a research project. It serves as the foundation for the study and gives the researcher a way how to explain and approach the research holistically from a philosophical, epistemological, methodological, and analytical standpoint (Grant & Osanloo, 2013). According to Creswell (2014), a theoretical framework is a structure that directs research by depending on an established, coherent explanation of particular occurrences and relationships. Thus, the theoretical framework consists of the selected theory (or theories) that undergird(s) the researchers thinking with regards to how the researcher understands and plans to research the topic as well as the concepts and definitions from theory relevant to the topic. Grant & Osanloo (2013) empirically defines criteria for applying or developing a theory to research that must be appropriate, logically interpreted, well understood, and align with the question at hand. The significance of the theoretical framework for research is important to the choice of a topic, the formulation of research questions, the conceptualization of the literature review, the research design, research approach, and the analysis strategy. Therefore, for this research, the theoretical framework is important to understand the topic, the basic research questions, the literature review used, the research methodology, and the analysis mechanism used in relation to educational practices, opportunities and challenges of deaf learners in the integrated education system.

The medical model of disability was used to describe and treat disabilities in the context of medicine prior to the emergence of the social model of disability. In other words, with medication, a disability is identified, treated (or fixed), and finally cured (Arndt & Van Beuren, 2013). According to medical model principles, practitioners and other specialists should try to develop universal criteria, procedures, and treatments to detect the "malfunction" and successfully "fix" it because disabilities are viewed as diseases (Thompson, 2016). Medical practitioners' expertise and skills are required to diminish or, ideally, remove this abnormality because it is well acknowledged by the medical model that people with disabilities are abnormal (Thompson, 2016).

The social model of disability, which holds that systemic barriers relating to social and political constructs have an impact on disability, in order to gradually secure civil rights for people with disabilities (Sisti, 2015). As a result, external forces cause disability, which ultimately causes social exclusion. According to the social model of disability, disability results from society's incapacity to comprehend, accept, respect, and accommodate diverse people rather than from physical "malfunctions" or variances (Thompson, 2016).

According to the biopsychosocial model of disability, an individual's health and the society that surrounds them both affect that person's ability to function. Although it assumes that these provisions are insufficient on their own because they are interconnected, this model accepts both the social and the medical models' requirements. As a result, a person with disability chances for employment and full involvement in society are determined by their health problems and how they are treated, by their education, skills, and training, as well as by external variables including society, infrastructure, and the workplace. The biopsychosocial model of disability therefore postulates that disability arises when the aforementioned components do not operate or do not function to their fullest extent (Active Assistance, 2012).

The biopsychosocial model of disability served as the intellectual underpinning for the redefinition of disability. The biopsychosocial approach is used by academics, professionals, and clinical researchers to better understand and address pain-related concerns as well as discrimination-related problems resulting from biological, psychological, and social variables (Shakespeare, Watson & Alghaib, 2016). The biopsychosocial model of disability aims to explain a multi-factorial perspective on disability by combining components like personal effort from persons with disabilities, medical and related professional care, and social changes, including work adjustments as well (Hussey, Money, Gittins & Agius, 2015). This model of disability highlights that various psychosocial and lifestyle factors can potentially contribute to disability, in addition to pathophysiological factors or impairments. This viewpoint somewhat disagrees with the medical model and the social model of disability because it sees both as being deficient (Gatchel, 2015).

The social model of the disability was used to lay the theoretical framework for this research. The beginnings of the disability social model can be linked to the 1960s, and in the 1980s, particular strategy originated from the United Kingdom. The origin of social model of disability was primarily a result of society's negative response to people with disabilities and also of their experience of the health and welfare system which made them feel socially isolated and oppressed. Because of the traditional dominance of the medical model, people with disabilities have faced denial of opportunities, the restriction of choice and self-determination, and the lack of control over the support systems in their lives (Grant, 2011). The social model of disability as a socially constructed phenomenon was developed in reaction to the limitations of the medical model of disability and inspired by the activism of the British disability movement in the 1960s and the 1970s (D'Alessio, 2013). More specifically, Mike Oliver developed the social model of disability in 1983 which is directly relevant to populations with disability and employment and

identifies societal negative attitudes and exclusion as the main contributor to the inferior position people with disability (Folguera, 2014).

According to Oliver (1983) hypothesizes through the social model that the main causes of the societal problems and job problems that affect disabled persons are their negative views (Inckle, 2015). Additionally, Oliver (1983), the environmental barriers that handicapped persons confront are not caused by their mental or physical impairments but rather by the social, cultural, ideological beliefs and attitudes that shape them, problems also exist in the environment because it does not provide for the needs of those with disabilities. Disability is a social construct that leads to prejudice against those with impairments in the form of physical barriers and employment discrimination (Parchomiuk, 2013). Oliver (1983) viewed disability as a social construct that results in discrimination against people with impairments in the form of physical barriers and job discrimination and problems reside inside the environment which fails to accommodate people with disability (Sylvester, 2014). Thus, based on Oliver (1983), disability refers to a society that discriminates, weakens and separates disabled individuals by not providing the necessary education, training and accommodations, instead of a limitation caused by any form of impairment to perform day-to-day activities. The social model of disability elucidates that discriminatory societal policies and inadequate infrastructure adaptations, limit full participation of disabled individuals in society (Halfon, Houtrow, Larson & Newacheck, 2012).

Theorists of the social model believed that attitudes of the society toward people with disability were unfriendly and isolating, manifested in unfair and discriminatory practices, segregated employment and educational opportunities, and inaccessible infrastructure. These unfair practices include discriminatory recruiting and promotion procedures, constrained training and educational opportunities, poor infrastructure, rigid work schedules, and lack of supported equipment (Heavy, 2013). Therefore, modifying the beliefs of the society is important to lessen prejudice and injustice, improve access, and eliminate negative attitudes, rather than mending the impairment or handicap as such, is the solution to these problems. According to the social model, reducing social stigmas and obstacles in the areas of the environment, economy, society, and culture will eventually result in the eradication of discrimination against people with disabilities. Eliminating prejudice would make it possible for people with disabilities to be treated like less-than-human beings, so indirectly eradicating the functional issues brought on by disability (Heavy, 2013). As a result, despite the fact that many people still experience disability-related challenges, these can be seen as challenges that can be conquered with the help of professionals, non governmental organisations , the government, and society as a whole.

In concept of social model of disability, it is the society which disables people with impairments, and therefore any meaningful solution must be directed at societal change rather than individual adjustment and rehabilitation. A person with a disability must be seen as normal, not abnormal, by the social model of disability. The implementation of inclusive education results in a paradigm shift in both the social world and the educational system. "Inclusion is about creating and sustaining a social environment in which all individuals encounter the realities of inclusive relationships and values. To encourage the recognition of human rights, inclusion aims to improve societal values and practices that have an impact on human beings' ecological aspects. In inclusive classrooms, learners with impairments are so integrated and taught. They are accepted into the normal classrooms and seen as individuals who required assistance. The social model of disability thus emphasizes on the accessibility of social environment of people with disability to attain human rights. Inclusive education supports the social model and is meant to promote inclusiveness in all aspects of human life (Barnes, Mercer & Shakespeare, 2014).

According to the social model of disability, disability is resulted from exclusion and discrimination against individuals with disabilities in both their daily lives and workplaces. Therefore, in the case of physical disabilities, disability is more of a social difference than a natural condition because it stigmatizes and excludes some people from society due to body variation (Winance, 2016). According to the social model, if society helps people with disabilities, their level of disability can be decreased or even erased. The social model of disability may lead to discrimination, not because of impairment but rather because of a confluence of structural, cultural, and societal elements that serve as barriers for those with disabilities. As a result, more barriers are put in the path of people with disabilities participating fully in society and the workforce (Bailey, Harris & Simpson, 2015).

Fundamental to the social model of disability is the notion that disability is ultimately a socially constructed phenomenon. The social model of disability emphasises the importance of this social dimension in its definition of disability: Disability is a situation, caused by social conditions, which requires for its elimination, (a) that no one aspect, such as incomes, mobility or institutions, is treated in isolation, (b) that people with disability should, with the advice and help of others, assume control over their own lives, and (c) that professionals, experts and others who seek to help must be committed to promoting such control by people with disability. Oliver (2013), stresses the need to focus on the social aspects of disability, especially how 'the physical and social environment impose limitations upon certain categories of people'. Oliver (2013) draws an important conceptual distinction between the term 'impairment' and 'disability'. The social model argues that rather than treating a person with a disability directly, societies and

organizations should change their structure, practices, and policies to accommodate different groups of people. Once these changes have been made, the needs of various types of disabilities will be met (Counts, 2015). As a result, society does not view people with disabilities as an abnormal group, but rather as a diversified population. Therefore, diverse groups ought to have an equal opportunity for rights, responsibilities, and success.

Impairment is defined as ‘lacking part of or all of a limb, or having a defective limb, organ or mechanism of the body’, while disability is defined as the disadvantage or restriction of activity caused by a contemporary social organisation which takes no or little account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities (WHO, 2018). From this point of view, disability is a socially constructed disadvantage, which is, in a very real sense, imposed on people with disabilities, constituting ‘a particular form of social oppression’ (Barnes, Mercer & Shakespeare, 2014). Rimmerman (2013) explains the critical importance of the distinction between impairment and disability in the development of social model, especially in terms of its relevance to different cultures. These definitions provide a theoretical underpinning for the social model by making a clear distinction between social disability and physical impairment. While an impairment is universally persistent concept, the social/political consequences to which this impairment has differs from culture to culture. Such approach has subsequently been slightly amended by those working in the disability community so that the term ‘impairment’ is utilised in preference to the term ‘physical impairment’, which could be construed as excluding sensory and intellectual disabilities (Rimmerman, 2013).

The social model of disability raises persons with disabilities' self-awareness and perceptions of them because it accepts them as they are and teaches them that society has to change, not them (Meyers, 2014). As a result, persons with disability must be treated with the same respect, recognition, equality, and fairness as all other members of society. Social model theorists argue that the term ‘people with disabilities’ is directly linked to the philosophy underlying the medical model and therefore insist that the term ‘people with disability’ better reflects the societal oppression that people with impairments are facing every day. As Purtell (2013) observes, ‘people with disability are people who are “disabled” by the society they live in and by the impact of society’s structures and attitudes. The social model’s argument associates the expression ‘people with disability’ with learning difficulties (Purtell, 2013) and stated as ‘People with learning difficulties: ‘People with learning difficulties are ‘people with disability’ whose impairment is their learning difficulty: they are disabled by the social reactions to it’. The social model is especially concerned with addressing the ‘barriers to participation’ experienced by

people with disabilities as a result of various ableist social and environmental factors in society. The social model of disability has had a profound influence on how disability is understood in our time. The social model has played a crucial role in shaping social policy vis-à-vis people with disabilities, not only in national levels but also in international level (Dunn, 2015).

The social model of disability has allowed persons with disabilities to challenge social exclusion and discrimination, finally enabling them to claim their equal and legitimate rights in the society or even in the workplace. Through the social model, people with disabilities obtained equal participation in society by removing social barriers, which were the main reasons for disability discrimination (Owens, 2015). The social inclusion of people with disabilities is improved and enhanced through the social model. To do this, infrastructure and social policies must be changed in a way that will lessen the detrimental effects on individuals with disabilities as well as the damaging misconceptions about people with disabilities (Thompson, 2016). Therefore, the social model requests first that the essential improvements be made, and then this perspective will change, and not the other way around, rather than striving to change how society perceives persons with disabilities. These adjustments, such as accessible structures, equal possibilities for employment and growth, and equal compensation, can only be made through changes in the law and in politics (Thompson, 2016).

Although the social model of disability is widely regarded as the new paradigm, there are still multiple variants of the model since various societies have varied perspectives on the model's guiding principles (Barney, 2012 & Haegele, 2016). Retief & Letšosa (2018) notes several points of critique that have been noted against the social approach. Firstly, some argue that the social model seemingly ignores the often-painful realities of impairment. Secondly, while many people accept the fact that they have impairments, they prefer not to be referred to as 'disabled'. Lastly, medical sociologists are very unconvinced of the model, for they reject the social model's distinction between impairment and disability as artificial. While acknowledging that the differentiation seems valid at the surface, such a simplistic division collapses once one asks the following question: 'where does impairment end and disability start?' Social model theorists have responded to critique such as the above by pointing out that they neither deny the fact that some forms of illness may have disabling consequences nor do they deny the role of medical professionals in treating various illnesses. For these theorists, the problem is that medical professionals fail to distinguish between a person's illness and his or her disability. The identity model is associated to social model of disability, yet with a fundamental difference in emphasis. This model shares the social model's understanding that the experience of disability is socially constructed, but differs to the extent that it 'claims disability as a positive identity (Dunn, 2015).

Furthermore, the fundamental tenet of the social model of disability is that the failure of society to eliminate any barriers preventing people with disabilities from fully participating in workplace and social activities is what ultimately leads to the exclusion and segregation of people with disabilities from society and workplaces (Bingham, Clarke, Michielsens, & Meer, 2013). The social model has been criticized for fully separating impairments from disability, which remains a crucial component of the lived experiences of individuals with disabilities. Supporters of the social model continue to hold the view that disabilities do not include limitations. However, Palmer & Harley (2012) emphasize that because of their limitations, people with disabilities have substantial essential experiences that influence how they interact with society.

In the notion of social model of disability, disability is seen as the disadvantage or restriction of activity caused by a contemporary social organisation which takes little or no account of people who have physical impairments and thus excludes them from participation in the mainstream of social activities. The social model of disability is never supposed to describe all those persons with disabilities encounters in an all-encompassing way. A distinction between the deficiency of the word and disability is the foundation of the social model of disability. The word disability is used in this model to refer to the actual characteristics (or absence of characteristics) that affect a person, such as the inability to walk or breathe independently. The term disability is used to refer to society's restrictions because it does not provide sufficient care and accommodation to the needs of people with disabilities (Oliver, 2013).

Social model defines disability as an unequal relationship within a society in which persons with disabilities' needs are partly or entirely/totally ignored. People with disabilities are disabled because they are barred from participating in society's mainstream due to physical, organizational, and psychological impediments. They are unable to acquire equitable access to information, education, job, public transportation, housing, and social/recreational opportunities because of these restrictions (Grant, 2011).

The social model of disability is founded on the idea that society should remove all barriers that can lead to children with special needs becoming isolated. The social model, in contrast to the medical model, believes that the issues that learners confront are due to the environment rather than the learner's attributes. People with disabilities, according to the social model of disability, are disabled not by their impairment, but by the disabling restrictions they experience in society (Oliver, 2013). When the researcher used social theory as a theoretical framework, it is considered that the social model raises awareness of the necessity of removing barriers in school and community by viewing deaf people as a group with unique communication and cultural

practices. According to the social model, sign language is a natural or common type of communication that is not inferior in any way to other "spoken" kinds of communication.

The social model sees deaf learners' challenges and difficulties as external rather than internal. This model looks for and discovers problems in the educational environment rather than in the child. Instead of trying to alter deaf learners to fit into the system, this approach emphasizes the necessity of reducing barriers within the system to fulfill the requirements of deaf learners. In the same way, it is thought that educators, teachers, and the community as a whole should work to change their beliefs and adapt and improve educational environments to meet the needs of all learners, which is a critical component of successful inclusive education for learners with special needs. One of the key assumptions of the social model in this regard is that there are no learners with learning challenges, but rather schools with teaching difficulties (Jonathan, 2017).

The social model was created with the goal of overcoming obstacles so that individuals with special educational needs have the same opportunities as everyone else to choose their own lifestyles and education. This model encourages the school to alter its teaching and learning environment to one that welcomes and accommodates all learners (Oliver, 2013). The social model of disability has fundamentally changed how disability is viewed and has had a significant impact on anti-discriminatory legislation. It has also shifted the focus away from the learner's issues and toward everything that happens in the school and classroom environment that can obstruct learning. Learning environment is composed of some components that influence the learner's learning. These components include people, teaching materials, technical tools, learning resources, curriculum, appropriate(?) trainings, and creating conducive physical environment (Adamu, 2015).

Social model of disability defines disability as a disadvantage caused by the interaction of two factors: (1) a person's physical or mental characteristics, and (2) the surrounding environment, which is at least partially constructed by others (Adam, 2015). Solutions to human problems involve looking at all aspects of the problems i.e., the issues related to the individual, the environment and their relationship with each other. From numerous developmental and educational theories of human disability and learning, these understandings have evolved. As the framework of this study, the social model of disability shares the opinion that both the physical and social environment are important to all aspects of an individual and the environment and that creation is a dynamic procedure in which results are strong-minded by the vigorous communication between these aspects. It is based on many social theories that emphasise the role of social groups as a driving force which shape individual behaviour and individual self-understanding. It is a model that transfers the emphasis to society's behaviors and an institution,

i.e., disability is a social construct and not a medical disorder, from what is 'wrong with a person' (Retief & Letšosa, 2018).

The social disability model describes structural obstacles, negative perceptions and social isolation (intentionally or inadvertently), suggesting that society is the primary contributory factor in making it difficult for people with disabilities to participate completely in society (Reddy, 2012). The limitations and lacks of abilities of individuals cannot be caused from their physical disabilities, hearing impairments, visual impairments, intellectual limitations, psychological problems, rather it can be caused from the society's failure to pay attention to and comprise individuals irrespective of their personal discrepancies. The disability social model sees persons with disabilities as having wants, needs and aspirations. That is, they seek equal treatment in all aspects of life. In inclusive settings, disability is viewed as socially constructed and culturally produced which is why it is also called a constructionist model. The social disability model is the product of environmental, social and attitudinal obstacles that restrict the full participation of people with disabilities in society. "Disability is seen as... social situations, lack of opportunities for education and training, inaccessibility to public services, unresponsive environments which has not physical access and lack of jobs, education, and social participation opportunities" (Tesfaye, 2014:150).

Disability means a lack or restriction of opportunities due to physical and/or social obstacles to engage in the daily life of the community for everyone else on an equitable level. "The word 'people with disability' should not be used in accordance with the social model of disability; it is better to refer to "people with disabilities" (Oliver, 2013). The disability social model postulates that disability occurs because of the inability of society to eliminate social, economic and environmental barriers. The social model's scope appeared to focus on the elimination of obstacles to inclusion, on immediate functional applications and on dissemination to professionals with disabilities. People with disabilities are exempted from full social involvement; there is huge societal exclusion, and it is thus reasonable that the model's proponents concentrate on obstacles to integration. Furthermore, as the focus on addressing the disadvantages of people with disabilities is minimal, it seems rational that model supporters prefer research that might help reduce these disadvantages. The social model of disability could consume higher effect if it gave attention to social and environmental challenges related to persons with disability (Levitt, 2017).

The social model of disability presents a positive disability identity. It is the most effective approach to inspire disability activism for the rights of people with disabilities. It assists in creating a political identity for people with disabilities to fight for affirmative action programs at

the policy level. It actively combats social exclusion and calls for strategies for the inclusion of persons who have disabilities. It emphasized the social barriers that people with disabilities face and produced a clear plan for social change (WHO, 2018).

Therefore, this theory is the most useful theoretical framework for examining practices, opportunities and challenges of deaf learners in the Integrated Primary Schools from the context of the individual, the settings or situation and the integration among them. It also moves the emphasis from the quest for the causes of individual problems and their physical and social environment to the concept of the disorder that will contribute to individual improvement (Tadesse, 2019). The Social Model of Disability has lots of implications for the services provided for people with disabilities and it is about the barriers that people with disability faced. By providing reasonable environmental and social adjustments', barriers of people with disabilities can be solved and this can have a positive impact on their lives (Grant, 2011). This offers the hope that we can integrate people with disabilities with the other people by eradicating the barriers faced by people with disability and with support from people without disability allies. For the reasons stated above, the theoretical framework of this study is social model of disability. This is because the researcher believed that it is fundamental to the issues that the current study deals with, which are the practices, opportunities and challenges of deaf learners in the Integrated Primary Schools but are also related to the deaf learners' educational life and their whole environment.

This study is anchored with the social model of disability at least in two general dimensions. First, this study makes an effort to shift the focus of attention from the functional limitations of deaf learners to the issues brought on the barriers and disabling learning environments. Secondly, this study also refuses to see specific issues with deaf learners in isolation from the entirety of their challenging learning environments. The communication and instructional strategies, social interactions of deaf learners, teaching and assessment methodology of teachers, availability of teaching materials and resource rooms and services, educational opportunities and challenges, and physical learning environments of the Integrated Primary Schools were assessed. Additionally, the viewpoints of deaf learners, principals and teachers regarding these issues was investigated and intervention strategies to minimize the educational challenges of deaf learners was also explored (Oliver, 2013). As a result, social model of disability strengthens this research by revealing the educational practices, opportunities, and challenges faced by deaf learners in the Integrated Primary Schools from the context of individuals, environments; and the integration of individuals and the environments, all of which tend to provide options, strategies, and intervention mechanisms to create a barrier-free learning environment.

2.25 CHAPTER SUMMARY

The literature review covered the historical development of SNE, the meaning of deafness, classification, causes and prevention of hearing impairments, the developmental profile of children with hearing impairments such as language development, cognitive development, social and emotional development. It also covers concepts of inclusion and integration of deaf learners in regular schools, international and national policies for deaf learners, basic educational programmes for deaf learners, required materials and equipment for deaf learners in an integrated setting, the physical learning environment, educational services and support to deaf learners, curriculum modification and its benefits for deaf learners, social interaction of deaf learners in integrated schools, major opportunities of deaf learners, major challenges of deaf learners, the need for early intervention and theoretical framework. The research methodology, theoretical framework, research paradigm, sampling technique, research design and approach, data collection instruments, data collection procedures and trustworthiness follow in Chapter three.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. INTRODUCTION

This chapter presents the methods of data analysis, social model of disability as a conceptual framework and research paradigm. In order to meet the objectives of the study, the researcher used various research methods. Issues covered in this methodological chapter include the research design, research area and study population, sample and sampling technique, data collection tools (questionnaire, interview, and observation) data collection procedures, data analysis process, and ethical considerations.

The data collection instruments of the study served/helped to evaluate pedagogical approaches of deaf learners in the Integrated Primary Schools of Amhara Region. Data were gathered in line with the following basic research questions.

- What practices do Integrated Primary Schools use when teaching deaf learners?
- What opportunities are available for deaf learners in the Integrated Primary Schools?
- What challenges do deaf learners face in the Integrated Primary Schools?
- What mechanisms can be used to minimise the challenges, and maximise the performance and opportunities for deaf learners in the Integrated Primary Schools?

3.2 RESEARCH PARADIGM

The interpretivist paradigm was most appropriate for this study; since the focus was on evaluating the teaching experiences of deaf learners in Integrated Primary Schools. This model will elicit the lived experiences of the participants. The interpretive paradigm allows researchers to see the world through the eyes of the participants' views and experiences. The interpretive paradigm investigator uses those experiences to develop and interpret his knowledge from obtained facts when looking for answers for research (Nguyen & Tran 2015:24). Examples of data collection techniques that yield qualitative data include open-ended interviews with varying degrees of structure (standardized open-ended interviews, semi-standardized open-ended interviews and informal conversational interviews), observations, field reports, personal notes and documents. Even though interpreters gather mainly qualitative data from respondents, interpretive researchers can also use methods that generate numerical quantitative data; for example, a questionnaire (Adil & Khalid, 2016).

3.2.1. Ontology

Ontology is a philosophy that discusses the nature of various facets of culture such as social actors, cultural norms and social structure, and the interaction between them. Questions relating to the kinds of things that happen within culture include ontological problems. Ontology is the study of reality's nature and structure, a term concerned with the existence of, and relationships between many parts of society such as social actors, cultural norms, and social structure (Ormston, Spencer, Barnard, & Snape, 2014). The assumptions we make about the kind and nature of reality and what exists are known as ontology. Ontology concerns our beliefs about the kind and nature of reality and the social world (Al-Saadi, 2014). Researchers have beliefs about the facts, how and what can be taught about all that exists. It is the ontological issue that motivates a researcher to become aware of exploring whether there is a true, verifiable truth and reality or several socially constructed realities. Ontology, according to Ormston, Spencer, Barnard, & Snape (2014:4), is concerned with "whether or not there is a social reality that exists independently of human conceptions and interpretations, and, closely related to this, whether there is a shared social reality or merely various, context-specific ones." The researcher was aware that deaf learners faced different educational challenges related to instruction, communication, social relationships and shortages of teaching aids and teaching resources. This prompted the researcher to gather information from deaf learners, teachers and principals of the Integrated Primary Schools by using questionnaires, interviews and observations to evaluate the educational practices used in Integrated Primary Schools.

3.2.2. Epistemology

The theories we render about the form or existence of information are epistemology or how it is necessary to figure out about the universe. Epistemology is a method to look at and make logical understanding of the universe. It requires understanding and a certain comprehension of what information means is expressed in. The 'spirit' of knowledge, its probability, its reach and validity are discussed by epistemology (Ormston et al, 2014:4). Epistemology refers to the philosophy section that studies the essence of knowledge and the system by which knowledge is gained and confirmed but with a clear orientation to the conflicting opinions on in what way physical and social environments would be examined. It concerns the essence and sources of knowledge, how it can be obtained and how it is transmitted to other human beings It is the epistemological problem that leads a researcher to respond to objectivity, subjectivity, causality, validity, generalizability, capability and desirability (Al-Saadi, 2014). The researcher studied the educational practices, opportunities and challenges of deaf learners in the Integrated Primary Schools. Being an expert in the area of special needs and inclusive education, the researcher

believes that on the education of deaf learners in the Integrated Primary Schools in the research cite is extremely limited. After the researcher had conducted the research, it became clear that deaf learners, teachers and principals in the Integrated Primary Schools have challenges related to instructions, teaching aids and resources, sign language, communication and social relationship. In addition to this, the researcher confirmed that, there are similar challenges of deaf learners particularly and learners with disabilities generally in Ethiopia (MoE, 2016). This information could provide a sound knowledge-based data for the furtherance of disability studies.

3.2.3. Axiology

Axiology is a branch of philosophy that discusses general issue of beliefs, that is, the essence, origin, and permanence of values. Axiology concentrates on issues about what was supposed to be. It deals with the essence of principles and applies to the teaching of moral values and the development of character. Axiology embraces the values and norms of all research participants in a study (Tomar, 2014). For this study, axiology was very important to ensure the confidentiality, responsibility and to give value to the perceptions of the participants. Axiology has relevance to this research inasmuch as it has a direct bearing on the ethical context of research and as it offers an important basis for making explicit the assumptions of different paradigms of research, and provides the foundation for understanding the process of the addition to knowledge.

3.3. RESEARCH DESIGN AND APPROACH

3.3.1. Descriptive Research Design

Research design is a blueprint that simply sets out the research goals (questions/hypotheses) and methods (tools and techniques for data collection and analysis) in a concise and transparent way. Within the practical constraints of location, time, money, and the researcher's availability, design is primarily concerned with the aims, uses, purposes, intentions, and plans (Asenahabi, 2019). A researcher's ideas are reflected in the research design. It alleviates frustration by tying the research together with a structure plan that demonstrates how all of the primary components of the study work together to answer the research questions. The study design is the strategy and procedures for the study providing the overall data collection framework. It provides the comprehensive steps of the study and provides instructions on systematic techniques for sampling, sample size, methods for data collection and processes for data analysis. To evaluate the information gathered through questionnaires, interviews and observations, the study used a

descriptive survey design with a mixed-methods research approach. In a descriptive research study, the researcher selects the sample participants and administers the data collection instruments to collect the data (Creswell, 2014).

Descriptive research design is a scientific process which requires examining and describing the behaviours of subjects without any manipulation. To obtain a general overview of the phenomenon, this approach is used by many academic disciplines, particularly social science and psychology (Creswell, 2014). Descriptive studies can be defined simply as an effort to assess, explain or define what is what, while empirical analysis tries to determine why or how it came to be that way (Asenahabi, 2019). The purpose of descriptive analysis is to provide a description of current problems or problems through a method of data collection that helps them to clarify the situation more fully than possible without using this technique (Shuttleworth, 2015).

Descriptive study is a type of research whose major goal or task is that of describing a particular state of affairs to determining the type, form and magnitude of its existence. It is a scientific investigation that tries to give a concise account of an event, behaviour or situation. In essence, descriptive studies, such as the characteristics and/or behavior of the sample population, are used to explain different aspects of the phenomenon. Although descriptive research can use a number of variables, in order to perform a descriptive analysis, only one variable is needed (Creswell, 2012).

Having the above discussed justifications, descriptive research design best suit to the present research on educational needs of deaf learners in the Integrated Primary Schools.

3.3.2. Mixed Methods

In this study, mixed methods, both quantitative and qualitative, were used. Quantitative research deals with numbers and statistics, while words and meanings are dealt with by qualitative research. There are different aims and approaches for both of these forms of study, and both are important for acquiring various kinds of information (Creswell, 2012).

Where one form of study (qualitative or quantitative) is not enough to tackle the research issue or address the research questions, mixed research methods are used. In order to expand, elaborate on or clarify the first database, more data is needed. If researchers want to follow up a quantitative analysis with a qualitative one to gain more accurate, concrete knowledge than can be derived from the results of statistical experiments, researchers participate in a mixed- methods study. As there is still an aspect of quantitative analysis in the study, a mixed- methods study is

more appropriate than a 'pure' qualitative study.

According to Creswell (2015), a mixed research method is one that has its own set of philosophical assumptions and research methods. It includes philosophical assumptions as a methodology to guide the collecting and interpretation of data from numerous sources in a single study. A mixed-methods design offers a number of benefits to approaching complex research issues as it integrates philosophical frameworks of both post-positivism and interpretivism (Fetters, 2016) interweaving qualitative and quantitative data in such a way that research issues are meaningfully explained. It also offers a logical ground, methodological flexibility and an in-depth understanding of smaller cases (Maxwell, 2016). In other words, using mixed-methods research allows researchers to answer research questions with adequate depth and breadth as well as generalize findings and implications of the researched topics to the entire population (Enosh, Tzafir, & Stolovy, 2014). The quantitative technique, for example, enables a researcher to collect data from a large number of participants, boosting the likelihood of generalizing the findings to a larger population. The qualitative technique, on the other hand, allows for a more in-depth understanding of the subject under investigation while also honoring the participants' opinions. To put it another way, quantitative data adds breadth to a study, but qualitative data adds depth. Furthermore, qualitative data can be triangulated with quantitative results, and vice versa. The use of numerous methodologies or data sources to generate a full picture of a research problem or to test validity through the convergence of information from various sources is referred to as triangulation as a qualitative research strategy (Carter, Bryant-Lukosius, DiCenso, Blythe & Neville, 2014). By combining two sets of strengths while adjusting for the flaws of each approach, a mixed-methods design offers the highest chance of answering research questions (Creswell, 2015). In Saville (2012:7) terms "mixed-method research designs are becoming increasingly relevant to addressing impact research questions".

Combining two methods may be preferable to utilizing only one since it is more likely to yield rich insights into study phenomena that cannot be fully comprehended using only qualitative or quantitative methods. Multiple data sources can be integrated and synergized in a mixed-methods approach, which can aid in the research of complicated problems (Poth & Munce, 2020). As indicated in the previous section, the use of mixed research methodologies entails purposeful data consolidation, which allows researchers to gain a broad perspective on their research by allowing them to examine a phenomenon through several (research) perspectives (Shorten & Smith, 2017).

In a research study, there are six key grounds for mixing quantitative and qualitative data. The first reason for using a mixed research approach is that it helps researchers to expand their investigation to a necessary depth and breadth. The advantages of collecting both closed-ended quantitative data and open-ended qualitative data, for example, support understanding of a research problem when a researcher wants to generalize the findings to a population and develop a detailed view of the meaning of a phenomenon or concept for individuals (Creswell, 2014). Furthermore, qualitative data (such as interviews and focus groups) can provide depth to the research inquiry since narratives can give the researcher a better understanding of the phenomenon. Then, a quantitative data collection strategy might broaden the study by assisting the researcher in collecting data on various elements of a phenomenon from various participants. The second driving motivation for integrating the two methodologies is the assumption that both types of study have value and that they are complementary in some ways, therefore combining them will add value. The researchers combine two data sets to address the same study issue, resulting in increased certainty and a broader conclusion (Maxwell, 2016; Morgan, 2014). Furthermore, mixed-methods research findings provide a holistic view of a phenomenon and new insights into distinct components of a phenomenon, which may aid in the development of substantive theories (Venkatesh, Brown, Bala, 2013). Third, a mixed research technique approach assists researchers in creating an in-depth and comprehensive understanding of a research topic by overcoming epistemological discrepancies between quantitative and qualitative paradigms (Lund, 2012).

While a quantitative method allows concepts to be operationalized in terms of well-defined indicators, tracing trends and relationships, making comparisons, and using large and perhaps representative samples, a qualitative method has the advantages of sensitivity to multiple meanings, logical ground, great methodological flexibility, and in-depth study of smaller samples, which aids in the study of process and change. Fourth, employing two approaches in such a way that the strengths of the qualitative methods offset the flaws of the quantitative methods, and vice versa, helps to generate more rigorous conclusions (Plano Clark & Ivankova, 2016). This means that quantitative methods can be effective in situations where qualitative methods are ineffective, and vice versa. To put it another way, one method is more suited to answering one sort of question while another is better suited to answering another type of question. As a result, combining the two ways allows researchers to combine two sets of strengths while also accounting for the drawbacks of each method. As a result, the combination of quantitative and qualitative methodologies is frequently recommended on the grounds that a researcher may take use of the strengths of both approaches while avoiding the weaknesses of

each, resulting in a more accurate result. For example, a researcher might try to get a more accurate picture of a research topic by comparing the results of one approach (qualitative or quantitative) to those of another (quantitative or qualitative) and looking for convergence and/or divergence (Plano Clark & Ivankova, 2016). Finally, "to produce more effective and refined findings by using the data from one approach (qualitative or quantitative) to guide or influence the usage of another method (qualitative or quantitative)" is the sixth motivation for combining the two methods (Plano Clark & Ivankova, 2016, p. 86).

3.3.2.1. Quantitative Research

Quantitative analysis is used to quantify the problem through the generation of numerical data or data that can be translated into useful statistics. It is used to assess attitudes, beliefs, habits, and other variables found and to generalize findings from a broader sample population. Quantitative analysis utilizes measurable data to formulate facts and find patterns in science (Julian, 2019). Quantitative data collection techniques are much more structured than qualitative data collection approaches. Various forms of data collection methods include quantitative Strategies for information gathering: online surveys, telephone interviews, longitudinal research and systematic observations. Quantitative research approach is a systematic investigation of the extent or magnitude of a behaviour applying measurement techniques and tools that yield numerical data to be analysed and interpreted statistically. In numbers and graphs, quantitative analysis is expressed. It is used to test theories and assumptions or to validate them (Creswell, 2014).

3.4.2.2. Qualitative Research

Qualitative research is research that examines types and characteristic features of an issue or behaviour using an instrument that yields non-numerical (visual or verbal) data which is analysed by non-statistical techniques. Qualitative research is an exploratory one in its very nature. It is about exploring problems, knowing phenomena and gaining insight into the attitudes, habits, belief systems, concerns, motives, expectations, community or lifestyles of people. The goal of qualitative researchers is to obtain an in-depth understanding of individuals and the factors governing those behaviour. The qualitative approach explores why and how decision-making takes place, not just what, where, and when decision-making takes place (Yin, 2018).

Qualitative findings are conveyed in phrases. It provides insights into the problem or helps to generate ideas or hypotheses for potential quantitative research. Qualitative research is also used to identify trends in thought and opinions and dig deeper into the problem. Qualitative approaches to data collection vary when using unstructured or semi-structured techniques.

Several common approaches are focus groups discussions, individual interviews, and observations. The sample size is usually small, and participants are selected to fulfill a specified quota. It is used for interpreting the sample's ideas, thoughts or experiences. This form of study helps the investigator to gather in-depth insight into subjects that are not well known (Maree, 2015).

3.3.2.3. Differences between the Approaches

In general, qualitative and quantitative research approaches have differences in research purpose and flow, sample size of respondents, information collection, and interpretation and conclusions of post-research response (Daniel, 2016). In data-oriented analysis, where the study aim is to produce measurable empirical evidence based on fixed and predetermined questions, quantitative approach has been used. Consequently, the flow of study is decided until the research is carried out. On the other hand, qualitative research is used where the aim is to keep investigating at the discretion of the researcher for answers to the research questions. The research flow is not predetermined, and there is flexibility of the researcher/interviewer to frame and pose new questions.

The first difference obviously pertains to the objectives of the research. That is, qualitative research is concerned with studying qualities of behaviour (qualification) while quantitative research focuses on studying the quantity (quantification) (Yin, 2018). The second difference relates to the purpose of the research. Unlike the quantitative approach, research questions in the qualitative one is not enclosed by operationalising variables. Instead of researching problems in a more complete sense, with all their complexities, and in their context, research questions are formulated. Therefore, while individuals conducting qualitative research can develop a focus as they gather information, they do not approach the study with specific questions to answer or test hypotheses (Maree, 2015). The third distinction is that qualitative researchers are concerned with interpreting behavior from the subject's own frame of reference, unlike quantitative researchers. The other significance is external aspects. Via continuous interaction with people in places where participants typically spend their time, they tend to collect their data. The fourth difference is about selection of participants.

In qualitative studies, participants are selected purposefully (through non-probability sampling) depending on if certain attributes or contextual locations are typified or not. In quantitative studies, non- probability sampling is used. For quantitative analysis, the sample is far larger, such that adequate verifiable information is obtained to draw an unbiased conclusion. The sample size can be in the thousands in large-scale quantitative research, whereas qualitative

research inherently uses a limited sample size since a large sample size makes it impossible for the researcher to ask questions about study. The fifth difference pertains to the methodological issues. Methods, tools and data are different. Qualitative research uses less structured, informal and more participatory approaches that yield large amount of data. Some of the common methods are observation of participants, field notes, reflexive papers, unstructured interviews, review of materials and records, any unstructured materials including customer feedback forms, suggestion boxes, qualitative articles and reports or media clips.

Quantitative research is structured around hypotheses and the testing of variables, with data collected by way of questionnaires or surveys. Finally, if there are differences in the type of data secured, there are obviously differences in the approaches to analysis. Quantitative research uses techniques for the collection of information which can be quantified and analyzed for statistical analysis. Quantitative analysis, in short, relies heavily on "numbers", data and statistics. To draw quantifiable research results, quantitative research uses a number of methods of statistical analysis. These are focused on data-applied mathematical processes. Qualitative research, however, uses conversational approaches to obtain relevant information on a specific topic and relies on the interviewer to draw research conclusions based on the participants' perceptions. In qualitative research, the conclusions are effectively subjective in nature. Accordingly, the qualitative type is more holistic and contextual while the quantitative approach takes a more reductionist and isolationist approach (Daniel, 2016).

3.3.2.4. Advantages and Disadvantages

One of the benefits of qualitative research methods is that it includes all the required resources to help solve problems that can cause recall. To gather data from participants in their natural environments, methods of qualitative information such as evaluation, open-ended questions, in-depth interviews and field notes are implemented. With regard to the respondents involved, the techniques used in data collection provide a complete overview of the study. Perceptions of the participants provide a greater view of behaviour. The qualitative analysis methodology therefore offers abundant data on individuals and circumstances in real life. The qualitative research methodology is capable of providing factual and vivid details based on the compilation by the researcher himself of non-numerical primary data such as words and photographs (Berg & Howard, 2012, Johnson & Christensen, 2012).

Despite its advantages, qualitative research approach has some disadvantages. For instance, the social world is perceived as dynamic and not static by qualitative researchers and the lack of replicability is another disadvantage of qualitative research approach (Johnson & Christensen,

2012). In view of this it is not possible to generalize because the findings depend on the researcher's time of explanation, while another researcher could give a different explanation at another time. Therefore, another researcher will not replicate the analysis in another location and still get the same results. Since the qualitative approach is characterized by emotions and personal reports, it is often claimed that, compared to using quantifiable statistics, the approach does not provide accurate and consistent data. It has been said that users of the method write fiction because they have no way of checking the reality of their claims. Qualitative researchers' non-use of numbers makes it hard to simplify results and observations (Atkins & Wallace, 2012).

Like that of qualitative research approach, quantitative research approach has advantages and disadvantages. Since the quantitative research approach is research that puts greater focus on the use of statistical data in the compilation, definition and interpretation of data on numbers, percentages and observable figures, the primary benefit of the quantitative research approach is the use of statistical data as an instrument that saves time and money. For data collection and analysis, the use of scientific methods makes generalization and replicability possible (Cohen, Manion, Morrisom, 2018).

The other advantage is that the researcher does not need to do intelligent guesswork because the quantitative analysis methodology depends on hypothesis testing; rather, they obey simple guidelines and goals (Lichtman, 2013). With the quantitative research approach the researcher has no direct interaction with the participants, which eliminates the researcher's bias during data collection and data analysis; that is, through objective surveys or questionnaires, the researcher collects the data (Daniel, 2016).

One of the drawbacks of the quantitative research method is the detachment of participants from the researchers. It would be exceedingly difficult to perform an in-depth analysis of the phenomenon within its natural setting with this form of investigator/participant relationship. In the quantitative research method, the researcher is responsible for almost all obligations during data collection and data processing, and the participants have no space to change the study's direction (Yin, 2018).

3.3.2.5. Justification for Using Mixed Methods

This thesis used both qualitative and quantitative analysis methods based on the above-mentioned justifications. Using both research approaches provide a clearer understanding of the issue of analysis by converging both qualitative and quantitative information, and using both research approaches help to minimise the limitations and to maximise the advantages of each research approach (Creswell, 2014). For these reasons, the researcher believed that to better

understand the existing practices, opportunities and challenges of deaf learners in the Integrated Primary Schools of Amhara Region and to explain the best practices of these Integrated Primary Schools when teaching deaf learners, both qualitative and quantitative research approaches are found to be very important.

3.4. LOCATION OF THE STUDY

Location refers to the geographical site of the study. The location of the study is the place where the participants of this study live – for this study the research site is Amhara Region. The researcher selected samples from the population by using simple random and purposive sample selection mechanisms (Glatte, 2015).

In Ethiopia, there are nine regional states and two federal administrative towns. The research area of this study, Amhara Region, is one of these nine regional states. In this region, there are eleven administrative zones that have their own woredas/districts. In these 10 zones, there are 170 Integrated Primary Schools where deaf learners are educated. From these 170 Integrated Primary Schools, 10 Integrated Primary Schools are found in the central town of each of the 10 zones. For the purpose of collecting complete and appropriate information, from the 170 Integrated Primary Schools, the 10 Integrated Primary Schools found in the central town of each zone were purposely included in the study. This is because Integrated Primary Schools have SNE teachers, access to education, accessible schools and relevant experience with teaching learners with special needs.

The population of this study included deaf learners, teachers, and principals. Amhara National Regional State Education Bureau reports that the number of deaf learners at elementary level (Grades 1-8) count 343, and the number of teaching and administrative staff count 110 and 10, respectively.

3.5. POPULATION

The study population consisted of deaf learners, deaf learner teachers and integrated elementary school principals selected from the 10 administrative zones of the Amhara National Federal State of Ethiopia. The selected administrative zones are North Gondar, South Gondar, North Wollo, South Wollo, North Shawa, East Gojjam, West Gojjam. Awi, Wag Hemira, and Oromia. The sample number of deaf learners from North Gondar, South Gondar, North Wollo, South Wollo, North Shawa, East Gojjam, West Gojjam. Awi, Wag Hemira, and Oromia were 20, 18,13,15,18,20,20,17,15 and 14 respectively. The numbers of sample teachers from North Gondar, South Gondar, North Wollo, South Wollo, North Shawa, East Gojjam, West Gojjam.

Awbi, Wag Hemira, and Oromia were 6,6,5,5,6,6,6,5,5 and 5 respectively. Note that one school principal was chosen as a sample from each of the ten Integrated Primary Schools.

3.6. SAMPLE AND SAMPLING TECHNIQUE

Sampling is a systematic collection of the sample participants of the research from the target population size. The selected sample will reflect and represent the characteristics of the population of the study and they can provide the information that the researcher is interested. The samples are smaller than the total number of the population of study. There are two primary methods of sampling, namely probability sampling and non-probability sampling. These techniques of sampling are decided by the researcher based on the location and the population of the study. When researchers conduct research, they should pay careful attention to how the samples are selected. That is, the selection process of the samples and sampling technique is a fundamental part of the study (Glatte, 2015).

3.6.1. Quantitative Sampling

The research area of this study is Amhara Region, one of the nine regional states in Ethiopia. In the study area, there are 10 administrative zones and 170 Integrated Primary Schools in which deaf learners are enrolled. Only 10 of the Integrated Primary Schools accommodate deaf learners. To select these 10 Integrated Primary Schools of deaf learners, purposive sampling was used. The samples of this study were deaf learners, their teachers and principals of the Integrated Primary Schools. The researcher had access to the lists of deaf learners and their teachers. In the study area, there were 890 deaf learners from Grades 1–8, 343 deaf learners from Grades 5–8, 110 teachers of deaf learners and 10 principals. From the deaf learners of Grades 1–8, only Grades 5–8 was purposely selected. The reason for the selection of learners from grade 5-8 was these learners are able to understand issues better than learners from lower grade because of their age and education level. Of the 343 deaf learners, 170 (50%) of Grades 5–8 was selected, and of the 110 teachers of deaf learners, using simple random sampling process, 55 (50%) were chosen. Participants have an equal and fair chance of being chosen using simple random sampling techniques. This sample is unbiased and unaffected by the researcher because the selection procedure utilized provides every participant a fair chance (Creswell, 2014). The reason for using the simple random sampling technique for both groups of participants because the researcher intended to give all participants an equal opportunity to be selected. . Furthermore, the simple random sampling technique increases the representativeness of the samples from the total number of participants. To select samples of deaf learners and their teachers, a proportional number of participants were selected from Grade 5–8 by using lottery method. This is most popular method

and simplest method. In this method all the items are numbered on separate slips of paper of same size, shape and color. They are folded and mixed up in a drum or a box or a container. A blindfold selection is made. Required numbers of slips are selected for the desired sample size. The selection of items thus depends on chance (Belay,etal, 2015).

3.6.2. Qualitative Sampling

Using the non-probability sampling technique of the purposeful sampling method, all 10 principals of the Integrated Primary Schools found in the central town of each zone were chosen. For the purpose of the interview, the learners and teachers were chosen using a simple random lottery sampling technique.

3.7. DATA COLLECTION INSTRUMENTS

Kabir's (2016) procedure for administration of final data collection was employed in the present research. Firstly, the researcher presented the letter of recommendation of the institutions to the school directors and secure permission for data collection. Once cooperation is secured and participants are identified with the help of school directors and homeroom teachers, then the researcher assembled the participants in one room, tell them about the determination of the research and again secure their agreement to partake in the research. The researcher informed them here that their responses shall be kept confidential and will not be used in ways that will harm them or for purposes other than this research. They were also informed about instructions to be followed in providing their responses. For instance, they were told that they were not required to write anything that disclosed their identity such as their names.

The processes of the data collection included a variety of activities. First, permission letter was secured from Amhara National Regional State Education Bureau to conduct the research in the Integrated Primary Schools of ten zones in the region. Having this permission letter, the researcher again asked permission letter from the Integrated Primary Schools and permission letter from each Integrated Primary School will be gained. Then, names and phone numbers of selected Integrated Primary School principals were collected. After permission has been granted, the researcher took principals as contact person for each Integrated Primary School. The role of the contact person was introducing the researchers with deaf learners and their teachers and giving school overview in the context of the research (Kabir, 2016).

Willingness of participants of the study was requested, and based on their interest they became part of the research. Data was then collected taking choosing convenient time both for the

participants and the researcher through mutual consent.

In conducting scientific research, accurate and systematic data collection instruments are critical. There are different types of data gathering tools for different kinds of purposes. These different types of data collection instruments allow researchers to gather data that the researchers want to collect about the objectives of the study. There are various types of data collection techniques, including record analysis, examination, questioning, testing, or a combination of different approaches, depending on the research approach (Abawi, 2013). In order to obtain the necessary data for the current study, questionnaires, interviews, and observation were used. The instruments were prepared by the investigator according to the objectives of the research and based on reviewed literature. They were then evaluated by instructors of Special Needs and Inclusive Education from University of Gondar (researcher's working institution) and by the researcher's advisor for their content and face validity. Finally, improvements were made based on the comments that were given.

3.7.1. Questionnaire

A questionnaire is an instrument that consists of a set of questions about a phenomenon that is sent or provided to a person or a group of people for the purpose of gathering data on the issues under investigation. By using a form that the respondent fills in, it refers to a computer to secure answers to a set of questions. It is a structured collection of questions that are handled either face-to-face or by mailing to participants (Kabir, 2016). For the purpose of collecting information, a questionnaire is a data collection method containing of a set of questions and additional instructions (Abawi, 2013).

The questionnaires for this study included three parts (Appendix H and I). The key step in getting participants to clear them was to include a courteous and carefully written cover letter to clarify the study's intent. The cover letter ensured that the respondents maintain their information in strict trust (Kabir, 2016). The first part, thus comprised the purpose of the questionnaire and general instructions. The second encompassed questions about the biographical data or personal data about participants. These including questions about sex, age, grade level, and other important variables related to the research. The third part covered questions relating to the academic practices, opportunities and challenges of deaf learners. There were different ways of initiating and sustaining the motivation of participants in the design of the questionnaire itself.

After receiving confirmation that the Integrated Primary Schools have interest to partake in the research (Appendix C), the investigator-initiated contact with deaf learners and teachers of deaf

learners in the Integrated Primary Schools. Participants were obliged to sign a document of informed consent before the administration of the questionnaire began. The researcher tried to ensure that a secured face-to-face meeting with respondents to elucidate the purposes and the benefits of the research and to inform them of the ethical considerations. They were advised that participation was voluntary and were asked to sign a consent statement. Thereafter, respondents were presented with the questionnaire to complete and return to the researcher. All the respondents returned the questionnaire to the researcher timely (Creswell, 2014).

The researchers developed the key theme of the questionnaire on the basis of the study and the related literature. Close-ended questions were prepared in English and translated into Amharic, mother tongue of the participants. The researcher translated the instruments into the target language Amharic and reviewed by two special needs education professionals who are graduates of English and Special Needs Education in their first and second degree, respectively. The items aimed to assess the involvement of deaf learners in the process of teaching-learning, and the teachers' use of appropriate resources, assessment methods and instructional strategies.

3.7.2 Semi-Structured Interviews

An interview is a primary data generation technique in which the interviewee verbally gives the necessary details in a face-to-face or non-face-to-face situation. In design or structure, interviews differ. An interviewer can interview one person at a time (individual interview) or a group of individuals simultaneously (focus group interview) in some circumstances. While the latter appears cost-effective in certain situations, in groups with the involvement of others, interviewees may refuse to disclose those information or experiences (Kabir, 2016).

In this research, individual interviews were conducted by the researcher with deaf learners, teachers and principals. To manage the interviews properly, interview guide questions were prepared separately for each category of the interviewees. The questions were constructed to enrich the data obtained from questionnaire and observations. The interviews with the teachers focused on how they presented lessons, how they communicated with deaf learners, and how they assessed deaf learners. The interviews with deaf learners focused on understanding how they perceived the communication carried out in the classroom and overall school compound, and their involvement in the teaching-learning process. With the support of SNE teachers who had sign-language abilities, these interviews were performed. The interviews with principals focused on what resources were available in the school, what accommodations were made in the education of deaf learners, what opportunities and challenges there were in the schools and what educational measures were taken in the school to create an accommodating learning environment.

The interviews were conducted after the administration of the questionnaire. The participants in the interviews and the researcher agreed on the interview venues, dates and times. The interview venues, dates and times were chosen in collaboration with the principals of the Integrated Primary Schools, based on ease of access and their convenience. Interviews were first conducted with deaf learners with the help of SNE teachers who had sign-language skills, then with teachers followed by school principals. The interviews with deaf learners, teachers, and principals took place on several days. Seven hours were spent interviewing deaf learners, nine hours interviewing teachers, and ten hours interviewing principals

3.7.3 Observation

The primary purpose of conducting observation is to identify the existing practices, opportunities and challenges of deaf learners in the Integrated Primary Schools and classrooms. Direct or participant type of observation and classroom observation was conducted with deaf learners and teachers. The major contents of the observation checklist were the communication process of deaf learners with the hearing school community i.e., learners, teachers, and principals. The classroom observation was focused on the deaf learners' participation in the teaching and learning process and the teachers' use of appropriate resources, assessment methods and instructional strategies.

Observation is a structured mechanism by which the occurrence of a hidden or overt activity in a real-life situation is detected, documented and classified according to an expected scheme. Either a participant or a non-participant approach can be accompanied by observation. The investigator becomes more or less a member of the classes to be studied in the participant process. In observing with varying degrees of participation (e.g., as a visiting stranger, an attentive listener, an enthusiastic learner, or a more complete role as a participant observer), the researcher may play any of several roles. The person takes the role of an observer in a non-participant observation, but in a way that ensures their presence is not disruptive to the group (Creswell, 2014).

In this research, the researcher used direct observation and the observation took place nine hours. The intention of the observation was to see the participation of deaf learners in the classrooms, the instructional approaches used in the schools, teachers and how effective communication was facilitated for learners with hearing impairment inside and outside the classrooms in the Integrated Primary School's compound.

Observation can also be classified as unstructured and structured. Unstructured observation is primarily related to the observation of participants and it is also an exploratory technique. It may

not be possible to explain in depth and categorize the behavior to be observed in advance in an unstructured observation. Instead of using preset definitions, in terms of their meaning or circumstances of which they are part, the observer considers aspects of behaviour. In this research, the researcher used structured types of observation. This was because the researcher had already developed an interview guideline and the observation was formal which provides systematic explanation of the observed data. What is more, the observation was executed in controlled situations of classrooms of Integrated Primary Schools and the time limit under which the researcher has to make the observations was limited (Creswell, 2014).

3.8. DATA COLLECTION PROCEDURES

Data collection is the process of collecting and analyzing data on responses based in a developed system, which then allows the researcher to answer relevant questions and evaluate results. Data collection is an aspect of research in all fields of study, including natural and social sciences, humanities, and industry. While techniques vary by discipline, the emphasis remains the same on ensuring correct and true selection. The aim of all data collection is to capture quality evidence that allows research to lead to persuasive and precise answers to the questions asked to be formulated (Kabir, 2016).

3.8.1. Administering the Questionnaire

Two days before the set date of the administration of the questionnaire, the samples were randomly selected from the schools' sampling frames. The place and date of the data collection was based on mutual agreement between participants and the researcher. On the day of administration, the researcher gathered the participants in one room, provided briefings, assured them of confidentiality and distribute the booklet. During data collection from deaf learners, the researcher was assisted by a sign-language interpreter. As the directions on the questionnaires were self-explanatory, the participants were expected to respond independently. If any one of them had any concern, the researcher identified the issue privately to the individual. The respondents have been then provided with the consent form so that they could write their signatures and hand back to the researcher after they have responded to the questionnaires.

3.8.2. The Interview Process

In the interview process, there are some techniques that researchers need to considered in using interview as a research tool. These techniques deal with interview planning, interview process, and data recording (Creswell, 2014). The researcher carefully arranged the interview in

preparation for the interviews, which included agreeing on what kind of data the interview could provide. With the consent of the participants, the interviews were recorded. In conducting interviews, the interviewer tried to create a conducive and non-threatening atmosphere where the interviewees would feel relaxed. In this environment they would develop a sense of comfort in the relationship and trust with the interviewer.

3.9. DATA ANALYSIS

Data analysis is defined as a process of cleaning, transforming, and modeling data to discover useful information for decision-making. The purpose of data analysis is to extract useful information from data and taking the decision based upon the data analysis (Kabir, 2016). Research analysis presents the findings of any institution, entity, or individual's research work being carried out. Research work review requires a given framework and should be carried out very carefully. Before beginning the study, a preliminary understanding of the actual research project is very necessary. Depending on the subject and area of study, the approach to analysis differs, but the framework that forms the basis of the analysis remains the same. For example, the responses for close and open-ended questionnaire items were analysed first variable by variable. Then, to strengthen the analyses obtained from the questionnaire responses, qualitative data from the interview and observation were analysed by coding and identifying themes. When analysing data (whether from questionnaires or interviews), the researcher starts by reviewing the research objectives. This allows the researcher to arrange the details and concentrate on the study (Howitt & Cramer, 2017). In order to reinforce the findings obtained from the questionnaire, the researcher first evaluated the quantitative data obtained from the questionnaire and then analysed the qualitative data obtained from the interviews and observations.

3.9.1. Quantitative Analysis

Methods of quantitative as well as qualitative data analysis were employed to analyse this research. The data collected through close-ended questionnaire were entered into the SPSS program and were analysed using descriptive statistics (frequencies, percentage, mean, standard deviation and one sample t-test). Statistics were used not only to define the data but also to determine what dependency we can place on the sample information. Descriptive statistics describes the information the researcher collects as accurately and succinctly as possible. Statistical techniques have ways of summarizing the data obtained from a number of sources. Statistics may be used for the simple and accurate tabulation of research information or results.

As such, it merely defines the collected data. Quantitative analysis has been used by summarizing data using tables which has frequencies, percentages and standard deviations by means of formulas that defines the key characteristics of the data numerically. One sample t-tests were used to compute teachers' use of teaching methodologies, teaching aids, assessment methodologies and their way of communication with deaf learners. The mean is used to compare the actual value with the scale's mean value (Howitt & Cramer, 2017).

3.9.2. Qualitative Analysis

Data gathered from interviews and observation items of participants were analysed qualitatively. Creswell (2012) states that in order to draw inferences, qualitative data analysis requires dismantling, segmenting and reassembling data to shape concrete findings. The investigator took the measures suggested by Creswell (2012) to evaluate phenomenological data in the data review. First it documented and transcribed interviews and observations; then the researcher went through the scripts of the interview and observation and highlighted relevant statements and sentences or quotes that gave an interpretation of how the phenomenon was interpreted by the participants. Secondly, the investigator formed clusters of meaning into themes from these claims. The researcher used the themes in the next step to compose a summary of what was encountered by the participants. The researcher wrote a composite description which presents the nature of the phenomenon.

3.10. QUALITY ASSURANCE CRITERIA

3.10.1. Quantitative Research

3.10.1.1. Validity

According to Yin (2018), validity is defined as the extent to which a concept is accurately measured in a quantitative study. In addition, validity is defined as the domain to which a study's findings can be generalised. To check whether or not the validity is achieved, the data from all respondents of the quantitative questionnaires were analysed and the researcher checked that the quantitative instruments adequately cover all the content that it should with respect to the variable and the researcher draw inferences about the education of deaf learners related to the concept being studied.

3.10.1.2. Reliability

Reliability can be defined as the degree to which test scores are free of measurement errors. It is also called consistency and dependability of an instrument (Yin, 2018). Therefore, reliability is

an analysis of the consistency between a series of distinct, interchangeable observations. Researchers may check reliability of instruments by administering the same question or instrument for the same individuals at different times. If individuals give different answers to the same question when asked at different times, then the instrument is indeed unreliable. This problem is especially the case of asking vague and broad questions. In such cases, what happens is the same person may understand such questions differently under different conditions (Yin, 2018).

In terms of achieving this study's reliability, the researcher had distributed a pilot questionnaire for teachers and deaf learners and face-to-face interview for principals for two Integrated Primary Schools from five Integrated Primary Schools found in Gondar city administration before conducting the final questionnaire and interviews. These two-sample Integrated Primary Schools were not taken as samples in the real data collection period. Each participant of the questionnaire and interview was provided similar questions relevant to goal of the analysis, and the replies of each went in line with basic research questions.

In the pilot study, 10 deaf learners, 14 teachers and 4 school principals in Gondar City Administration participated. Using the stratified random sampling process, Integrated Primary Schools from which deaf learners, teachers and principals were drawn were selected from the list of non-sampled schools provided to the researcher by the Head of the Education Department of the City Administration of Gondar.

3.10.2 Qualitative Research

With regard to the qualitative approach, the researcher needed to reflect on the trustworthiness of the research, which comprises four key elements, namely, credibility, transferability, dependability, and confirmability (Creswell, 2012).

3.10.2.1 Credibility

Credibility refers to trust in the data's accuracy as stated as well as the researcher's systematic and detailed interpretation. It includes carrying out the analysis in a way that improves the credibility of the data's results over time and conditions. Credibility is determined by how well the researcher demonstrates the interpretation of research methods and how well the methodology is applied to data collection and data analysis by the researcher. Three distinct but related elements are included in the credibility of a qualitative investigation: a) robust methods for doing fieldwork that generate high-quality data that is consistently evaluated with regard to credibility issues; b) the researcher's reputation, which depends on preparation, experience, track

record, rank, and self-presentation; and c) a philosophical conviction in the importance of qualitative study, i.e., a fundamental recognition of qualitative methods of naturalistic research, inductive analysis, purposeful sampling, and holistic thought (Ferdinand, 2019).

In this study, the researcher's supervisor was very experienced and conversant with qualitative research and believed in value of qualitative inquiry. The supervisor fulfilled this important role in approving this research which focused on the practices of integrated schools in the education of deaf learners.

3.10.3. Transferability

Transferability is shown by demonstrating that the sample represents the target population equally as well as by demonstrating that the participants in the sample have the skills, experience and expertise required to provide information in that discipline or area, and that the target population will find the subject to be relevant.

Therefore, if other researchers want to consider whether the samples fairly represented the target population that they had the knowledge, the experience and expertise necessary to provide information on the topic, they could compare the results from the new study to those of the original study (Ferdinand, 2019).

3.10.4. Dependability

Dependability is shown by having simple, detailed and sequential explanations of all processes and procedures, such that each of them can be faithfully replicated by another researcher. Therefore, different researchers can use the study as a source for the study would provide clear and detailed procedures and methods (Ferdinand, 2019).

In this study, to ensure dependability, the research process was clearly documented; the research analysis and findings were supported by those of an objective co-coder; and the whole study was continuously checked and reviewed by the supervisor of this research to ensure that it was fair and ethical especially as it involved teachers, principals and deaf learners below the age of 18 of the Integrated Primary Schools.

3.10.5. Confirmability

Confirmability is a level of objectivity or the extent with which the participants form the results of a study and not the prejudice, inspiration, or concern of the researcher. External audits, an audit trail, triangulation, and reflexivity are the strategies for establishing confirmability (Irene

& Albine, 2018).

- External audits include the review of both the method and result of the research study by a researcher not involved in the research process. The aim is to determine the accuracy and evaluate whether or not the data supports the observations, interpretations and conclusions.
- An audit trail is a clear summary of the research measures taken from the start of a research project to the development and reporting of outcomes. There are papers that are kept with respect to what was done in an investigation.
- In order to generate understanding, triangulation requires using several data sources in an investigation (Irene & Albine, 2018).
- Reflexivity is an attitude of systematically engaging in the sense of the creation of information, particularly focusing on any bias or choices of the researcher, at any point of the research process. A researcher's context and status will affect what they want to investigate, the approach of investigation, the techniques considered most suitable for that kind of purpose, the findings considered most suitable, and the presentation and dissemination of findings (Irene & Albine, 2018).

3.11. ETHICAL CONSIDERATIONS

There are certain actions that are regarded as undesirable and not allowed in research. The definition of ethics is behaviour that conforms to the norms of a given profession's actions. What researchers consider ethical is, therefore, largely a matter of agreement among themselves. Different research institutions, academic disciplines, professional associations, and other organisations have different codes of conduct to guide how researchers should behave in discharging their duties and responsibilities (Fleming & Zegwaard, 2018).

Research is a process which involves many resources, ideas, human activity, problems, laws and regulations that govern all the tasks performed. The investigator must take ethical concerns into account each time when human participants are involved in primary research. Every researcher who wants to conduct primary research nowadays has an obligation to use ethical procedures to avoid harm to participants. It is vital for researchers to familiarise themselves with the basic ethical principles and have up-to-date knowledge on policies around ethics and research to ensure that the research participants' safety is guaranteed and to avert finding themselves on the wrong side of the law and ethical guidelines (Thakhathi & Ncube, 2012).

When embarking on doctoral research, there are a variety of ethical standards that should be considered. These ethical principles emphasise, at the heart, the need to do good and not to harm.

In practice, these ethical standards indicate that prospective research participants need to obtain informed consent from a researcher, reduce the risk of damage to participants, preserve their privacy and confidentiality, prohibit the use of misleading practices, and grant participants the opportunity to withdraw from the study ethical considerations that are all compulsory and one of the most significant components of science. The thesis could even be doomed to failure if ethical problems are not considered in research studies. Ethical considerations should be considered from the initial selection of research design, through the fieldwork and analysis to the dissemination of research findings (Steffen, 2016).

Generally, for the above-mentioned reasons, the researcher included the necessary ethical considerations and below is a discussion of each of the fundamental concepts of research ethics.

3.11.1. Institutional Approval

Institutional approval is required for any research. The researcher obtained an ethical clearance certificate from College of Education, UNISA (Appendix A). The researcher applied for permission to conduct the research from the participating Integrated Primary Schools, study area education bureau and zonal education administrative offices (Appendix B). As the study involved deaf learners, teachers and principals of Integrated Primary Schools, it was important to adhere to organisational guidelines and to proceed with their consent (Appendix D and E). Authorisation and the signed informed consent forms will be kept safe for five years, together with all other records related to this study.

3.11.2. Voluntary Participation and the Right to Withdraw

There is voluntary engagement in research. That is, participants are free to exercise their willingness to decide whether or not to engage in research and the right to withdraw from research at any time. Participation in any study should be undertaken with complete knowledge of the person concerned, and no one should compel them to do so. As the participation of participants is voluntary, they should also be able to withdraw from the process of investigation. When a person wishes to withdraw from the research process, they should not be pressured or intimidated in any way to try to discourage them from withdrawing (Fleming & Zegwaard, 2018). In this case, the inclusion in this analysis of samples from Integrated Primary Schools was voluntary and they were allowed to withdraw at any time without adverse consequences. Additionally, the parents were asked to give consent for their children to participate in the study. Written and signed consent was given by the parents after which consent was given by the child (Appendix D). So that, it was clear that parental consent was sought.

3.11.3. Avoiding Bias

It is immoral to be partial to the researcher. There is a distinction between subjectivity and prejudice, but people sometimes confuse the two. Subjectivity stems from the competency, training and educational context of the researcher in both scientific and philosophical perspectives. Bias, on the other hand is when the researcher's intentional attempt is to either expose something disproportionately to its true reality or hide what the researcher has learned throughout the study. Accordingly, it is best to stay away from conducting research if the researcher does not manage his or her bias (Kumar, 2014).

Therefore, without misrepresenting or fabricating any findings in the study process, the researcher attempted by any means to avoid bias and record all the results in a full and truthful way. There was also an opportunity for the interviewed participants to see the transcripts of their interviews. To ensure this issue, the researcher read the transcripts to the participants in order for them to see whether he had captured their views correctly or not.

3.11.4. Informed Consent

One of the foundations of research ethics is the concept of informed consent. Informed consent does not simply refer to a form signed by participants in the study, but it refers to a mechanism in which participants understand the research and its implications for them and their communities. Simply put, informed consent entails the application of a number of protocols when human beings are used as subjects, and these respondents must realize that they are interested in research and what they require from the study. This information may include the purpose of the study, the methodology used to identify the possible outcomes of the research, along with the associated demands, discomforts, inconveniences and risks that may be faced by the participants. While it is not possible to know exactly what details a prospective participant would (or would not) like to know, the investigator should try not to leave out any material information; that is, whether the researcher believes that the data will impact or not, consent will be provided (Hesse-Biber, 2016).

Another element of informed consent is the principle that participants should be volunteers, taking part without being manipulated and deceived. Informed consent is the authorization of the participant to engage in the research and is a deliberate agreement and arrangement for an investigation to participate. The researcher must clarify why this is the case if informed consent cannot be obtained from participants. In this regard, sample participants of the study were fully informed on the research project and a written request for consent was made and they volunteered to participate in the study through their signed agreement (Appendix E). They were also told that the researcher was given permission to conduct the analysis in the Integrated

Primary Schools (Shahnazarian, Hagemann, Aburto & Rose, 2013, Supino & Borer, 2012). The participants were volunteer, on the basis of this, to take part without being manipulated and misled, and to sign an informed consent document.

3.11.5. Protecting Anonymity and Confidentiality

In both written and verbal documentation, the identity of the participants should be protected so that the information the researcher gathers does not affect them. The investigator should be especially cautious in exchanging information with persons who may want to use the data for political or personal benefit. Researchers are expected to make sure that no one else has access to the data. It is unethical to disclose research data (classroom observation of learner and teacher behaviour in the present case) for reasons other than the purpose of the research (Fleming & Zegwaard, 2018).

A further functional aspect of research ethics is to maintain the privacy and confidentiality of research participants. Anonymity refers to a situation in which the researcher is unable to link the information provided to that precise research participant by a participant. If they know that no one can recognise them or connect them to their responses, study participants are more likely to be frank or provide accurate data. Anonymity can be obtained by asking research participants not to first reveal their identities; for example, many studies are carried out anonymously and often research participants are expressly told not to sign or put anything on a questionnaire that identifies them; their names, for example. In some cases, however, the researcher may want to make sure that there is anonymity but could want to have access to their participants for a prolonged time so as to ask them the same questions and see if there are any changes after a couple of months or even years. This can be attained by giving them code-names or personal identity numbers and encouraging them to make use of these aliases whenever the survey is being conducted (Withrow, 2013).

When performing studies, information gathered secretly assists to ensure that the participants' privacy is safeguarded. In the cover letters or by phrase, researchers also guarantee the participants' confidentiality. Participants also need to be recognized; for example, when participants who have not replied or who will be expected in the second round of the study have to be sent follow-ups or reminders. The ethical matters become pertinent when participants are assured of their privacy while the investigator is aware that this will not be the case. In addition, the investigator wants to deliberate mechanisms to solve certain issues, such as the integration of information in tables and the establishment of guidelines that guarantee before data/information can be displayed, a minimum number of units are present. Another option is to obtain permission

to limit access to data and analysis to the published content, perhaps only allowing certain individuals marking the work to see it. Adjustments will then need to be made to protect the privacy of participants if the study were later released (De Vos, Strydom, Fouche & Delpont, 2013).

Numerous kinds of research, such as observations or surveys, ought to be carried under the supposition that the researcher may reveal findings without identifying or naming the participants. Some interviews, however, are not performed under the condition of anonymity; thus, the researcher must inform the respondents whether or not they would be unidentified (Driscoll & Brizee, 2012).

The researcher assures the participants that all the information will be treated confidentially and will protect the privacy of data sources by not sharing or disclosing the information without the participants' permission. It is the responsibility of the researcher to ensure that knowledge about any of the participants is not connected to their identities under any circumstances when documenting the results. In line with guidelines from Withrow (2013), therefore, the researcher took steps to ensure confidentiality, such as:

- using pseudonyms to avoid any link between responses and participants and the information obtained;
- recording interviews anonymously; codes that were free of personal identity details were used while recording data;
- not divulging individual data; and
- substituting the names of all participants after they have given their names.

When their participation and consent were required, the participants were told of the above-mentioned confidential issues and were assured that the data obtained during the study would be kept in a locked safe on a password-protected computer for five years.

3.11.6. Respect for Human Dignity

In terms of academic practice, the notion of respect for human dignity is often expressed in terms of the right to autonomous participation and the right to welfare. Some of the rights are the right not to be hurt or mistreated, the right to give informed, un-coerced consent to participate in study, and the right to privacy, confidentiality and/or anonymity. Participants must be handled with respect and their participation in the study needs to be obtained by the researcher. They have to actively engage in research projects, recognizing the determination of the research and the possible dangers and responsibilities (Fleming & Zegwaard, 2018). The participants were not

mistreated in this study and the investigator did not subject the participants of the study to a substantially burdensome, unfair, known or predictable risk.

3.11.7. Respect for Persons

Participants should not be predisposed to any kind of physical, psychological, or social harm because of giving their consent to participate in the research. In terms of science, this theory combines two aspects that deal with respecting individuals. The first is that it is necessary to consider participants as autonomous. The term autonomous refers to an individual who make his or her own decisions about what to do and what to agree to. Researcher has identified that individuals should make informed choices of their own whether to participate in research. First, full evidence about a research obligation be presented to persons in order to treat individuals as autonomous, and they must decide on their own whether to participate. Secondly, participants should be safeguarded with decreased independence. It might not be possible for certain people in society to make completely informed decisions about what they do or what happens to them. This may include teenage children, extremely sick people, or those with mental disabilities. In such cases, these individuals should be protected and included in the study only under strict circumstances, because they are not in a position to make a fully informed decision on their own. In this regard, the researcher considered the social, physical, and emotional circumstances of participants, rather than just their medical conditions, and put participants more at ease, encouraging valuable, honest, and open discussion (Withrow, 2013).

3.11.8. Beneficence

The concept of beneficence is an action that is carried out for the benefit of others and maximizes participant benefits and minimizes participant risks. This theory states that no damage can be done by science. In order to better serve and promote the well-being of our constituents, the principle of beneficence includes the ethical obligation to carry out adequate and applicable research. All participants must be told of how they are going to benefit from taking part in the research. This may involve ensuring that the research takes place in a safe and conducive environment and relationship among researchers and participants which leads in to an effective collection of data process. This suggests that participants should not be exposed to damage or hazards. Researchers are obligated to do their best to minimise these possible hazards and to optimize the benefits for participants (Akaranga & Makau, 2016). Other benefits such as rewards should be realistic and given as a token of appreciation rather than as a motivator for participants to take part in the study as this may lead to false data being provided for the sake of pleasing the

researcher or getting more rewards and benefits. More so, such benefits and rewards should not cause conflict or disharmony among the participants and the community as a whole. If this happens, then the whole purpose of the research is defeated. In this regard, the researcher interacted with deaf learners, teachers, and principals of each Integrated Primary School to ensure the benefits of participants and minimise risks. Participants were not exposed to harm or risks that ignored their safety and the special needs of the deaf learners.

3.11.9. Avoiding Deception

Researchers should report the facts when they write and publish their findings. The most significant features of any researcher should be their dedication to documenting what the information shows. An inexcusable indication of researchers is the fabrication of data or manipulation of data. It is the duty of the researcher to inform how participants know that if they are misled, they are engaging in research and what the research demands of them. Because of this, researchers should avoid any kind of deceptive practices. As discussed above, all participants were informed accordingly in the introduction letter, and it was made clear that the authorization for the analysis to be performed was obtained from the Integrated Primary Schools (Withrow, 2013).

3.11.10. Protection from Harm

Researchers do not expose participants to harm while performing a study, regardless of whether or not they volunteered to participate in the study. Security from damage is a moral and legal obligation to protecting, preserving and valuing the integrity and worth of study participants. There must be good justification for this when there is a chance of harming or placing participants in a place of distress. Additional preparation may also be necessary for such situations to demonstrate how to minimize participant damage (or discomfort): for example, in the letter of informed consent and in a comprehensive debriefing (Yalew, 2016). There are a variety of forms of damage to which participants may be exposed. These involve unjustifiable intervention, personal humiliation, participant physical maltreatment, emotional anguish, and discomfort or social disadvantage. As far as possible, the researcher should aim to leave the participants feeling as they were before participating in the study. Any risk that harms the participants should be reduced by the investigator. Researchers should consider obtaining permission from the participants, protecting the privacy and confidentiality of respondents, avoiding deceptive approaches when designing their study, and granting participants the right to withdraw from research at any time in order to decrease the likelihood of harm (Stevens, 2013).

3.11.11. Justice

This concept discusses the concept of justice. Researchers should decide what is fair in terms of the selection of participants and the choice of location to conduct the data collection. This includes problems relating to who is benefiting from research and who bears the risks of research. It provides the basis for thinking about these decisions in an equal and equitable way. Individuals that are included in research should not be used for merely they are a category that is readily affordable, accessible, or also disadvantaged and less able to say no. The theory of justice also suggests that for the groups involved in the research, the questions being raised should be important (Withrow, 2013).

3.12 CHAPTER SUMMARY

Chapter 3 of this research described the research design and methodology. This chapter demonstrated how the analysis adhered to an interpretivist paradigm. The researcher used both qualitative and quantitative research approaches. The research design was descriptive. Data collection instruments employed for data gathering were questionnaires, interviews, and observation. There were descriptions of the population, sampling technique, and samples. For both the quantitative and qualitative data, the analysis techniques were described. To guarantee the research's quality and increase its standard, the quality assurance criteria were considered. Finally, a thorough discussion of the ethical principles covered by this research was held. The analysis and interpretation of data follows in chapter 4.

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

In the previous chapter, Chapter 3 the researcher described the research design and methodology. This included discussions about the research paradigm, location, sampling techniques, research design, research approach, data collection instruments, how data were analysed, trustworthiness and ethical considerations.

This chapter presents a systematic analysis of data collected through different tools. Quantitative and qualitative data analysis are given due emphasis in relation to the questions raised.. The data analysis is organised focusing on the concepts discussed in the review of related literature in Chapter 2. To promote the quantitative and qualitative data interpretation, the analysis of quantitative data is presented followed by qualitative data analysis and triangulation was made. The data was collected from deaf learners, teachers and principals through questionnaire, observation and interview. The aims of this research were to investigate the educational practices, opportunities and challenges of deaf learners in the Integrated Primary Schools of Amhara Region.

4.2 DEMOGRAPHIC CHARACTERISTICS INFORMATION

4.2.1 Demographic Characteristics of Deaf Learners

Table 4.1 Demographic characteristic of deaf learners in the selected Integrated Primary Schools of Amhara Region

Variables	Categories	Number	Percent
Gender	Female	90	52.9
	Male	80	47.1
	Total	170	100.0
Age	12 years and below	72	42.4
	12–14 years	81	47.6
	15–17 years	17	10.0
	Total	170	100.0
Grade Level	5	43	25.3
	6	41	24.1
	7	39	22.9

Variables	Categories	Number	Percent
	8	47	27.6
	Total	170	100.0
Onset of Disability	Before birth	79	46.5
	After birth	41	24.1
	Didn't know	50	29.4
	Total	170	100.0
Cause of Disability	Disease	54	31.8
	Accident	45	26.5
	Unknown	71	41.8
	Total	170	100.0

As stated in Chapter 3, there are 343 deaf learners in Grades 5–8. According to the data presented in Table 4.1, 170 deaf learners participated in the study. Proportional number of male (47.1%) and female (52.9%) deaf learners were attending school at Integrated Primary School in Amhara Region. Most of the participant (47.6%) learners were between the ages of 12–14 years. The classification of the age category is based on developmental stages as child, early adolescent, middle and late adolescent. Most participant learners were in the developmental category stage of early to middle adolescence. Regarding their disabilities, most learners (46.5%) were born deaf. The findings revealed that most participants (41.8%) did not know the cause of their disability. In contrast, 31.8% and 26.5% became deaf due to various types of diseases or accidents.

4.2.2 Quantitative Results from Deaf Learners

Deaf learners responded to 20 items on the questionnaires on accessibility of the school environment, teaching materials, teaching methodologies, assessment methods, communication between them and their peers specifically and the teaching- learning processes in the Integrated Primary Schools in general. Table 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.9, 4.10, 4.11, 4.12 and 4.13 presents the quantitative findings.

Table 4.2: Deaf learners’ responses on school environment teaching materials, teaching methods and assessment methodologies

No.	Items	Respos	N	%
1	Is there an accessible school teaching environment for you in your school?	Yes	43	25.3
		No	127	74.7
2	In your school are there sufficient teaching materials for you?	Yes	19	11.2
		No	151	88.8
3	Do teachers use different types of teaching methods while they teach you?	Yes	40	23.5
		No	130	76.5
4	Do teachers use local teaching aids in your classroom?	Yes	78	45.9
		No	92	54.1
5	Are teachers teaching methodologies helpful for you to understand the lesson?	Yes	79	46.5
		No	91	53.5

In Table 4.2 deaf learners were asked about the accessibility of the school environment. Of the total number of participants, 127 (74.7%) responded that their school does not provide an accessible teaching environment for deaf learners. However, the remaining 43 (25.3%) participants responded that their school environment had an accessible teaching environment for deaf learners. This shows that most parts of the school environment are not accessible for learners with hearing impairment.

This result was supported by the qualitative data that were collected from deaf learners, teachers and principals. Teachers did not use a variety of teaching strategies or local teaching aids that can help deaf learners understand sessions. Furthermore, the teachers teaching methodologies were not helpful for deaf learners to understand lessons. There was also an inaccessible school environment and inadequate teaching materials.

To resolve the education of learners with deafness in particular and learners with disabilities in general, the change from segregated education to inclusive education is an essential and rational option. Physical environments, social environments, and attitudinal environments can either limit or promote involvement and inclusion for individuals with disabilities (Limaye, 2016). An accessible environment has benefits for a wider range of people, but it is especially important for persons with disabilities. The United Nations Convention on the Rights of Persons with Disabilities (CRPD, 2006) lays down the importance of measures aimed at improving access to various areas of the physical environment including buildings and highways, travel, information and communication. Such contexts are intertwined, so it would not be possible for individuals

with disabilities to benefit entirely from improvements in one domain while the others remain inaccessible (MoE, 2016).

The researcher believes that all children with disability generally and children with hearing impairment particularly would have access to barrier free environment that increases their participation in inclusive schools' activities. Barrier free environment means identifying and removing environmental barriers and creating an environment conducive to deaf learners which maximizes their interaction with hearing people regardless of cultural or ability differences (Sentayehu, 2015). Inclusive schools which have environmental access and accommodation for deaf learners, should teach in learner-centred pedagogy capable of meeting their needs. To contribute to the success of inclusive schools, improvements in the curriculum, facilities, school organization, pedagogy, evaluation, staffing, school culture and extra-curricular activities are required (MoE, 2015).

The classroom setting itself can also determine the success of the learning ability of a deaf learner. A changed classroom is necessary for learners with hearing loss, which should include well-designed acoustics, little distractive noise and adequate visual lighting. Each deaf learner as well as teacher should have a clear view of all visuals. The lack of physical infrastructure in inclusive environments interferes with deaf learners' learning process (Tamirat, 2020). In relation to quality education, inclusive learning environments in inclusive settings are significant (Tadesse & Dawit, 2019). The physical environment infrastructures involve schools, lecture halls, auditoriums, administrative blocks, libraries, laboratories, workshops, playgrounds, computer rooms, and special rooms such as hospitals, staff quarters, hostels for learners, kitchens, cafeterias, and toilets among others. Tadesse & Dawit (2019) also argues that when adequate quantity and quality of physical resources are available, learning experiences are successful and that unattractive school buildings, crowded classrooms, unavailability of playing fields and environments with no visual beauty would result in poor academic performance. If there are sufficient and adequate teaching and learning facilities to successfully execute educational programs (Rachel, et.al., 2015).

The research is of the opinion that physical accessibility has had a huge effect on whether or not deaf learners are able to engage completely in the school community. Physical accessibility is a prerequisite for the full realization of the rights and their full participation of people with disability in society. Physical accessibility is the provision of flexible facilities and surroundings to support the requirements and preferences of learners with disabilities. This could be any place, venue, thing, or service that is easily accessed, reached, entered, exited from, engaged

with, understood, or otherwise used by learners with hearing impairment (UN, 2019). The physical environment in which a deaf learner lives, learns and works has a significant impact on his or her impairment experience. By erecting barriers to participation and inclusion, inaccessible environments contribute to impairment (WHO, 2012).

According to the researcher, the atmosphere of inclusive schools and classrooms may have a huge effect on the general education of deaf and difficult-to-hear learners. Accessible school environments allow deaf learners to use all aspects of the inclusive school setting, such as buildings, including classrooms, bathrooms, cafeteria, and media center, and to access school rooms or spaces. These responsive inclusive school environments can optimally benefit deaf learners by breaking down barriers of sign language. Inclusive environments that are environmentally accessible are also important for optimizing the social interaction of deaf learners with learners without hearing impairment, improving oral and social skills that in later years can optimize their vocational and social opportunities. Oppositely, if the inclusive school environment is not conducive to deaf learners, inclusive school and classroom environments pose a major challenge and danger to their education, language learning and social growth and have led many deaf children to drop out of schools (Tamirat, 2020).

Similarly, participants were asked whether there were sufficient teaching materials for deaf learners or not. The majority of the participants 151 (88.8%) experienced an absence of sufficient teaching materials while a few of them 19 (11.2%) believed that there were sufficient teaching materials. This shows that most deaf learners feel that teaching materials which are important for their educational life are not sufficient. As mentioned in the above, a sizeable number (130; 76.5%) indicated that teachers did not use different types of teaching methods in the integrated classrooms. Only 40 (23.5%) learners indicated that their teachers used different types of teaching methodologies to teach them in the integrated classrooms.

In the researcher's view, adequacy of teaching materials is the most cost-effective input affecting learners' performance. The quality of education provided by schools is largely predicated on the quality of its educational system. In the light of the apparent constraints on educational resources their efficient utilization for maximum result need not be overemphasized Textbooks and teaching materials are basic resources for successful instruction and education; their non-appearance or insufficiency motivates teachers treat them in a nonconcrete way presenting them as dry and non-exciting. Therefore, the availability of teaching materials increases the efficacy of schools as they are the fundamental tools that lead learners to successful academic results (Usman, 2016). Teaching materials are a significant portion of the phase of teaching and

learning. In the teaching-learning process, instructional materials are critical by acting as a channel for teaching between learners and teachers, motivating the teaching- learning process, providing comprehensive information and promoting the learning process, making it easier to understand concepts and increasing focus while learning something. In particular, educational materials are necessary in order to draw learners' attention, not to feel boredom, brighten up the classroom and introduce more variety and excitement into the subject lessons, help include circumstances (contexts) that illuminate the meaning of the sounds used and inspire learners to speak the language, read and write it (Usman, 2014). Communication skills of deaf learners can be well developed if their interests and talents are carefully taken care of by the instructional materials and methodology. Relevant linguistic, environmental, psychomotor behaviors, and other components should be included in these products (Alton, Herman, Pring, 2012). In terms of the instructional techniques, consistency of understanding concepts and vocabulary, learners with hearing disabilities have their own unique requirements. Deaf learners with mild and severe hearing impairment also use vision as a predominant means of obtaining knowledge during lectures and other teaching sessions (Tadesse,2019). Instructional materials are provided as useful teaching resources with suitable seating arrangements in the classroom in a visual format such as chalkboard, power point slides, handouts, captioned images, overheads, diagrams, and other visual aids that anyone in the class can see including learners with hearing impairment (Kumar ,2017). Deaf learner teachers need to be adaptable and have adaptable instructional materials and equipment for learners with hearing disability to use (Rachel, Gladys, Naftal & Wesonga, 2015).

Teaching materials for an efficient teaching-learning method should be offered in schools in quality and quantity terminology. So many investigations have been reported out on the influence of educational materials on education. Rachel, et.al., (2015) produced a research report on the impact of teaching materials on the achievement of learners in West Africa School Certificate Examinations (WASCE). Learner performances in the West Africa School Certificate Examinations were linked to the teaching accessible infrastructures. He inferred the component tools have a huge influence on the performance of learners as they promote the awareness of abstract concepts and thoughts and prevent with memorizing formulas. Inadequate education is undermined when instructional resources are inadequate and this is ultimately manifested in below standard educational performance, high rates for dropouts, problematic attitudes, weak morale of teachers and unmet educational objectives.

Table 4.3: Deaf learners’ responses on appropriateness of assessment methods, extra time given in the teaching-learning process and accommodations

No	Items	Response	N	%
1	Do teachers use appropriate types of assessment methods?	Yes	28	16.5
		No	142	83.5
2	Do teachers give you extra time in the teaching-learning process?	Yes	30	17.6
		No	140	82.4
3	Are there special accommodations in your school which benefit you?	Yes	27	15.9
		No	143	84.1

Table 4.3 shows that 142 (83.5) of the study participants, i.e., the overwhelming majority, responded that teachers did not use appropriate types of assessment methods while teaching deaf learners, whereas the remaining 28 (16.5%) respondents claimed teachers use of appropriate types of assessment methods while teaching learners with hearing impairments.

The data obtained through the qualitative data was similar with this quantitative finding. Teachers did not use appropriate types of assessment mechanisms and they did not give extra time for deaf learners in the teaching-learning process. In addition, there were no also special accommodations provided by teachers in the Integrated Primary School which benefit deaf learners.

Test accommodation is one of the methods of accommodating deaf learners to succeed in inclusive schools which includes modifications to test materials or processes that reduce access obstacles without altering what is evaluated by the test. Test accommodations are an essential aspect of providing deaf learners with test equity and access (Rogers, Lazarus & Thurlow, 2014). For each learner, accommodations are special since every individual with hearing impairment has distinct vocabulary, communication and cultural histories and may also have extra disorders. Both in schools and in the workforce, testing is a common activity. Access to testing environments is particularly relevant as learners with hearing impairments are more entirely considered in a wide variety of instructional situations. Testing needs high risks as well. Many technical schools, community colleges and universities require admission or placement exams before graduation. In addition, a certificate or credential that requires passing a test is necessary for certain occupations (National Deaf Center on Postsecondary Outcomes, 2019).

According to National Deaf Center on Postsecondary Outcomes (2019), assessments are not always accessible for deaf learners that are designed to measure their academic progress. Any of the following variables will make test-taking tasks harder for learners hearing impairment. As a

consequence, it can require more time for deaf test takers to process and navigate the evaluation tasks. To understand the exam tasks, deaf learner readers can need to reread directions and objects. Persons whose primary language is sign language will have to translate concepts to sign language and back again, especially at school when working through challenging tasks (Alemayehu, 2016). Sometimes, assessments contain words or ideas that are not components of classroom instruction in the educational setting. Deaf learners do not always have equal access to the kind of understanding of the environment that learners use to appreciate the significance of items being studied. Test items also use words in ways that are different from what learners hear in home and school environments. Test response options, such as multiple choices, select all available options, true or false statements are types of tests (Belay et al, 2018). Learners with hearing impairment can need extra time, like all learners, to practice and familiarize themselves with the particular language constructs used in many test formats (MoE, 2018).

Participants were also checked whether classroom teachers provide them additional time during sessions. Of all the respondents, 140 (82.4%) said that they have not been provided with extra time to better understand the session, but 30 (17.6%) of them replied as they have been given additional time. From this, we can infer that most teachers in the Integrated Primary Schools and classrooms did not give extra time in the teaching-learning process while they taught deaf learners.

Regarding special accommodations for the benefit of deaf learners, 143 (84.1%) of the respondents revealed their complaints through their disagreement to the question. At the same time, 27 (15.9%) of the learners stated that there were special accommodations which benefit deaf learners. The researcher believes that emanating from the above findings it can be concluded that, in the Integrated Primary Schools, special accommodations which benefit deaf learners in the teaching-learning process were not available.

For evaluation, accommodations are an essential factor because assessments may not be structured in a way that deaf people may demonstrate their skills and abilities (Ambady & Sherly, 2018). The needs and interests of learners with hearing impairments should be based on test accommodation. Test accommodations are special accommodations intended to minimize test obstacles that may not adequately assess the skills and abilities of the deaf person. For instance, deaf learners can be given narrated instructions along with additional effort for reading so that they can understand the text in a test that involves voiced instructions (MoE, 2018). Test accommodations ought to be equivalent to those used during training for the classroom. Test accommodation required encouragement of deaf learners to recognize and justify their

accommodation needs, provide prospects to illustrate how they comprehend accommodated test materials (National Deaf Center on Postsecondary Outcomes, 2019).

According to the National Deaf Center on Postsecondary Outcomes (2019), there are distinct ways of adaptation that adapt the assessment to provide accommodated tests for deaf learners. The first is helpful listening aids that permit the learner to directly side into the voice of the source (e.g., hearing aid, cochlear implant, FM system). For any directions given orally, this is especially relevant. The second is captioned media that offers images, audio recordings, and more with text representation of audio material. This is important for activities in which learners need to use media information. The third is extended time, which is an accommodation for experiments of time limits as a rule. Extended time is a common solution for deaf learners who need to read test pieces, watch sign language videos, or use any accommodation that is provided (Mcglynn & Kelly, 2019). The fourth is the assistance of glossaries or dictionaries to understand the sense of terms in test objects. A dictionary offers the overall word meanings, and a glossary delivers meaning for the test with definitions and examples. Using a glossary or dictionary can be helpful for certain deaf learners in interpreting English terms or words that are not relevant to what is being tested (Saziso & Chimhenga, 2021). Individual administration is the fifth form of test accommodation, which allows learners to take a test. This accommodation can eliminate distractions, allow learners to go at their own pace, and can be helpful when learners need to take breaks or other scheduling-related accommodation. The sixth is that regular breaks between sections may involve stopping or getting longer breaks between administrations of testing. Since testing for many learners can be tiring, but especially exhausting for learners taking a test over a longer period of time, frequent breaks can help provide the rest needed in an evolving language or through visual modalities to overcome fatigue (Edwards,2018). The seven kinds are interpreters of sign language who can translate some or the entire test into sign language. Many standardised evaluation translations are distributed as videos embedded in the format of online distribution. The objective of a translation of sign language is to preserve the context of test questions while still upholding the sign language rules. Scribes are the eight kinds of test accommodations for learners who can talk or sign their replies, which record or write answers to test questions. For instance, when a learner has mobility problems, this accommodation may be necessary instead of software for speech-to-text is not a good match (Hidayati & Hidayatulloh, 2017).

Table 4.4: Deaf learners’ responses on the presence of SNE Teachers, sign-language teachers and sign language interpreters

No	Items	Response	N	%
1	Are there special needs education teachers who support and teach you in your school?	Yes	20	11.8
		No	150	88.2
2	Are there sign-language teachers who teach you?	Yes	11	6.5
		No	159	93.5
3	Are sign-language interpreters involved during lessons?	Yes	27	15.9
		No	143	84.1

As depicted in Table 4.4, deaf learners were asked about the presence of SNE teachers who supported deaf learners in the Integrated Primary Schools. Almost all of the participants (150; 88.2%) indicated that there were not enough SNE teachers to support and teach deaf learners in the integrated classrooms, while 20 (11.8%) learners clearly showed that there are SNE teachers who support and teach deaf learners in the integrated classrooms.

The qualitative information gathered from deaf learners, teachers, and principals confirmed this finding. According to the interview and observation, there were no special needs education teachers who taught and support deaf learners in grades 5-8 at the Integrated Primary schools. Neither sign language interpreters nor teachers who have sign language skill who work with deaf learners were also present during classroom lessons.

The researcher is of the opinion, if most learners with hearing impairments are to be accommodated in the inclusive classroom settings, special education curriculum must be modified and special teachers knowing sign language must come in to inclusive schools. The tasks of special teachers knowing sign language, among others, include giving extra support for deaf learners who require additional sign language skills, consulting general education teachers, and running pull- out services for deaf learners in need that allow teacher-deaf learner relationship and flexibility in text selection, choosing curriculum goals and pacing of instruction. The deaf education program in inclusive settings should have provisions of appropriate lesson support; coordinating professional development activities such as sign language skills training, provision of deaf education for school administrators and teachers and collaborating with parents of deaf learners.

All most all of respondents, 159 (93.5%) and 143 (84.1%) respectively, disclosed that there were no sign-language teachers or sign-language interpreters involved during lessons in the Integrated

Primary Schools classrooms. Contrary to this, very few, 11 (6.5%) and 27 (15.9%) of the participants witnessed the presence of sign- language teachers and sign-language interpreters who involved during lessons. Based on the majority of respondents, it can be concluded that Integrated Primary Schools lack sign language teachers and interpreters.

For the integration of deaf learners in daily life, sign language is of major significance. In the deaf community, one of the most significant positions is the interpreter of sign language. The interpreter's job is to solve the problem of communication among deaf learners. Sign language interpreters constitute the “voice” of people with hearing impairments whose sign language is their major language. A sign language interpreter assists deaf people in seminars, lectures and other official affairs. In addition, a sign language interpreter is a trained professional who acts as a liaison between a teacher and deaf learners in the classroom or between deaf learners and other members of society who are hearing. In several ways, a sign language interpreter functions as a bond between deaf learners and their listening counterparts. As a consequence of the extent of their hearing loss, most deaf learners do not benefit much from oral communication. Therefore, the sign language interpreter aims to close the communication gap by mediating among persons with hearing impairment and people without hearing impairment.

The responsibility of the sign language interpreter also complements the use of assistive technology devices by deaf learners in an inclusive educational environment in certain circumstances (Ewa, 2016). There are two types of interpreters for sign language. These are interpreters of oral sign languages and interpreters of cued speech sign languages. The oral sign language translator speaks to the deaf learners when signing using facial and other body gestures. In the other side, the cued speech sign language translator mouths the words to the deaf learners and uses hand signals as well (Ewa, 2016). Westwood (2011) summarised the challenges of sign language interpreters in encouraging deaf learners to engage in inclusive classrooms with respect to the role of sign language interpreter as follows. One, it should be in the line of vision of the learners. Secondly, it is important for the translator to sit or stand near the center of attention in order for deaf individuals to observe the event's motion. Speakers, media, and interpreters should be situated in a single line of sight. The third is that the translator needs to voice what the learner has said if the deaf learners communicate by sign language, and the fourth is that one person can talk at a time. If the instructor talks too quickly during class, anyone speaks audibly, or several learners speak at once, the translator may not be able to provide the learner with a consistent interpretation. Appropriate credentials are a significant predictor of an interpreter's qualifications in the area of sign language interpretation, as in other careers. Certified sign language translators who successfully pass national tests and graduates of colleges

and universities in the fields of sign language, deaf education, inclusive education and SNE could provide sign language interpretation service. The tests evaluate abilities in vocabulary, comprehension and communication knowledge, judgment and decision-making skills on legal, cultural and professional issues. Trained sign language interpreters holding an official certificate from the National Association of Deaf People may be interpreters of sign language and may provide facilities for the interpretation of sign language for deaf people.

Table 4.5: Deaf learners’ responses on the educational opportunities and challenges

No	Items	Response	N	%
1	Are there opportunities for you to cope with your education in your school?	Yes	22	12.9
		No	148	87.1
2	In your school are there challenges you faced in the integrated classroom?	Yes	124	72.9
		No	46	27.1
3	Are you able to overcome these challenges you faced in the school?	Yes	79	46.5
		No	91	53.5

As clearly indicated in the above Table 4.5, almost all deaf learner participants of the study i.e., 148 (87.1%) experienced an absence of opportunities for them to cope with their education in the Integrated Primary Schools. Other participants 22 (12.9%) said that there were opportunities for them to cope with their education in the Integrated Primary Schools. Moreover, 124 (72.9%) participants indicated that they faced challenges in the integrated classrooms, while 46 (27.1%) participants said that they did not face challenges. However, 79 (46.5%) learners indicated that they were able to overcome the challenges they faced in the Integrated Primary Schools and 91 (53.5%) deaf learners said that they were not able to overcome the challenges. From these statements, we can get a broad view that most participants of deaf learners in the Integrated Primary Schools are not provided with opportunities to cope with their education and have faced challenges in the Integrated Primary Schools and schoolrooms.

This conclusion was supported by the information obtained from the qualitative data. Deaf learners at the Integrated Primary Schools had both opportunities and challenges. The schools were providing books and a uniform each year for deaf learners; there was educational, social, and communication interaction between deaf learners and learners without hearing; besides, deaf learners were receiving financial assistance deaf learners were receiving financial assistance and benefit for classroom supplies including books and stationery. Furthermore, deaf learners were receiving a monthly pocket payment of two hundred Ethiopian birr from the MoE as well as an annual clothing allowance. The fact that teachers, other learners, administrative employees, and

other service providers did not have attitude problems gave deaf learners' additional opportunities. The challenges that deaf learners faced included an inaccessible learning environment at school, lack of instructional materials, teachers who did not use a variety of teaching techniques and local teaching aids when instructing deaf learners. Additionally, communication and social barriers, lack of teachers with sign language proficiency, lack of sign language interpreters, and instructional impediments were among the most difficult things those deaf learners in the Integrated Primary Schools had to deal with.

According to the researcher, significant numbers of learners with disabilities have been left without access to education in previous years. However, when inclusive schools are opened, in inclusive cultures, a significant number of children with special needs attend their schooling. Studies indicate that inclusion not only has beneficial effects for learners with disabilities, but also for learners without disabilities (Mapolisa & Tshabalala, 2013). Inclusive schools and classrooms provide access for learners with disabilities and learners without disabilities, access to the same learning environment, access to social relationships, access to teaching services and teaching materials, access to subject matter content, access to general education teacher preparation and professional skills that are very distinct from that of educators in special education (Mag, Sinfield, Burns, 2017). Learners with disabilities are given the opportunity in inclusive environments to be introduced to social contact along with learners without disabilities. When learners without disabilities are taught in inclusive environments together with learners with disabilities, integration positively affects the behaviors of learners without disabilities. It has now been considered that educating deaf and hearing children together in inclusive schools offers deaf learners' equal access to education and learning opportunities (Zelalem 2014). As learners with deafness and learners with mild hearing impairment learn in inclusive schools along with learners without hearing impairments, it highlights those deaf learners can need to use sign language as a means of communication and maximize their social relationships (Alemayehu, 2016). In addition, in recent years there are some indications of opportunities of deaf learners inside and outside inclusive schools. These include positive attitudes of teachers, community involvement, sharing school facilities equal to learners without hearing impairment, and curriculum flexibility and responsiveness of school management to the educational needs of deaf learners (Yiey, 2018).

Children with hearing impairments experience different challenges when attending inclusive schools unless they receive proper help and support. There are different challenges in inclusive schools associated with the academic achievement of learners with hearing impairments. The challenges include, inappropriate use of instructional methodology, scarcity of resources for

improving learning progress of learners with hearing impairments, improper use of instructional terminology and strategies, inaccessibility of the inclusive school environment, and the negative perception of parents and peer (Yiey, 2018).

There are many challenges that hinder progress of deaf learners in inclusive schools. These include poor communication between the teacher and the deaf learner, negative attitude of teachers, parents and other stakeholders, unfriendly learning environment and school related factors, delayed identification and intervention, lack of commitment to implement inclusive education strategy, poor community involvement, poor inclusive school management, curriculum barriers, poor educational approaches and evaluation, insufficient/lack of resources, discriminative cultural factors, political and economic factors (MoE, 2012). There are many challenges of deaf learners in inclusive schools. Compared to so-called "normal learners without hearing impairment," deaf learners, including learners with "negligible" hearing impairment, are academically disadvantaged. There are psychological, emotional and learning challenges in the long term for untreated deaf learners and learners who have mild hearing impairment in inclusive schools. There was a lower grade point average for learners with hearing disabilities than their listening school friends (Yiey, 2018).

The main challenges deaf learners faced in Ethiopia inclusive schools are poor communication, inconvenient learning environment, attitudinal problems, lack of support services, traditional instructional procedure, ill-equipped resource rooms, lack of clear policies, insufficient human, financial and material supports, inconvenient organisation of the school and absence of instructional experience and skills. These challenges might affect directly or indirectly deaf learners particularly and learners with special needs generally in the educational process of inclusive schools (MoE, 2012).

Table 4.6: Deaf learners' responses on communication and social relationships with their peers

No.	Items	Response	N	%
1	Do you have a social relationship with your peers in the school?	Yes	134	78.8
		No	36	21.2
2	Is there any communication gap between you and your peers to communicate well with each other?	Yes	143	84.1
		No	27	15.9
3	Do you participate in the extracurricular activities of the school?	Yes	41	24.1
		No	129	75.9

As Table 4.6 shows, deaf learners were asked about the social relationships they had with their peers, the communication gaps between them and their peers and their participation in the extracurricular activities in the Integrated Primary Schools. Most participants (134; 78.8%) responded that they had good social interaction with their peers in the integrated schools, although 143 (84.1%) experienced communication gap between them and their peers and 129 (75.9%) did not participate in the extracurricular activities of the school respectively. Contrary to these statements, a few of the participants (27; 15.9%) had no communication gap between them and their peers and 41 (24.1%) are taking part in extracurricular activities of the school respectively.

This result supports the qualitative data received from deaf learners, teachers, and principals. According to the interview results and observations made, there was no satisfactory social relationship between deaf learners and their peers without hearing impairment at the Integrated Primary Schools. Additionally, there was a communication gap between deaf learners and the school community without hearing impairment. Moreover, there was little involvement of deaf learners in the school's extracurricular activities.

Several studies such as Hurst, Wallace, & Nixon (2013) have proven that in learning environments, social relationships play a deciding role. Learning is the product of the sharing of ideas, the success of joint activities, conversations, and a social, cognitive and emotional interaction network. The dynamics of these social interactions are a factor in the development of individual and mutual awareness and have a direct influence on the educational success of learners in education (Hurst, Wallace, & Nixon, 2013). Learning can be defined as an interpersonal interaction in which learners communicate, exchange, provide and obtain diverse views. Learning is a predicate of human communication. There are various interaction patterns

between learners in learning that are part of learning relationships; the more interactions there are, the more individuals can learn from each other (Haythornthwaite, 2018). In addition to the positive impact of social relationship on teaching and learning, studies showed that lack of social relationship among learners have negative impact on teaching and learning. According to study done by Chukwunyere (2019), the value of social skills, teamwork and self-control has long been recognized by classroom teachers as essential to achieving academic and behavioral performance. Nevertheless, some have claimed that lack of social skills of learners impacted their ability to learn appropriate academic skills that would enable them to experience a good educational experience during their years of enrollment from lower to upper school grades. Since social relationship skills of the learner are missing, during the session time students lack enthusiasm; they become unable to comprehend and furthermore concentrate on the topic being taught; unable to articulate pertinent questions, unable to follow; they also become frustrated and ashamed of asking questions for clarification (Chukwunyere, 2019).

The researcher believes that in inclusive schools, a variety of skills are needed to teach learners with hearing impairments, one is communication skill. Good communication is seen as an influential condition in the process of classroom instructions for the effectiveness of deaf learners, and teachers with good communication often make it simpler and understandable for learners. For a teacher, in passing on education, classroom management, involvement with learners in the classroom and strong communication skills are very important. To teach learners with numerous styles of thought, knowledge and abilities and disabilities, teachers of learners need to follow communication skills that inspire diversified learners to their learning process (Alamgir, Salahuddin, Syed & Manzoor, 2017).

In one way or another, communication and education are interconnected in which effective communication is vital in education. To help students better achieve in their learning, there should be effective classroom communication. Effective communication allows students to learn faster, improves teacher-learner relationship, and promotes a supportive learning environment atmosphere. Contrarily, absence of good communication between teachers and learners for various reasons, such as lack of time and resources, and lack of knowledge of teachers on how to share information for students may lead to poor communication. This poor communication adversely affects the style and method of teaching and learners' enthusiasm for learning. For this reason, communication and pedagogy are interwoven with each other (Diloyan, 2017). That is, though most deaf learners feel that they have good social interaction, there are still observed communication gaps and poor extracurricular activities.

Table 4.7: Deaf learners' responses on their integration with other learners

No.	Items	Response	N	%
1	Are you satisfied with being integrated with other learners in the integrated school and classroom?	Yes	26	15.3
		No	144	84.7
2	Do you want to learn in the classrooms of deaf learners?	Yes	147	86.5
		No	23	13.5
3	Do you want to learn out of the classrooms of deaf learners?	Yes	24	14.1
		No	146	85.9

As shown in Table 4.7 above, deaf learners were asked if they feel happy attending school in integrated classes or only with deaf classmates. Nearly all of them, i.e., 144 (84.7%), expressed their dissatisfaction of being in integrated classrooms. However, only 26 (15.3%) of the participants were satisfied with the integrated classroom. The majority, i.e., 147 (86.5%), prefer to learn together with deaf learners, and 23 (13.5%) of the respondents preferred not to attend classes arranged only for deaf learners. Additionally, the majority 146 (85.9%) did not want to learn outside of the classrooms of deaf learners. For the item designed to crosscheck their preference, 24 (14.1%) showed interest to get themselves out of deaf student's classrooms. From this we can infer that, deaf learners have the interest and were satisfied to learn with learners who have hearing impairment than learners without hearing impairments in the integrated school classrooms.

Inclusive environments have many advantages for children with impairments and children without impairments (Kirschner, 2012). The benefits of the change to inclusive education are that it helps learners with and without disabilities by giving them the ability to enter regular schools in the community, gain psychological, social and educational advantages by engaging, studying, playing and living with their peers; it serves children with concealed or undetected disabilities who have already been disabilities and promotes a positive attitude by introducing the importance of appreciating differences, mutual understanding, empathy and helpfulness among all children; it encourages and engages families of children with disabilities and the community to engage in promoting the education and overall physical, social and intellectual well-being of children with disabilities; it reduces the cost of purchasing and enhancing the consistency of the education system above all it reduces the troubling early school dropout rate of learners with disabilities by offering special educational services through the use of accessible local services and alternative approaches.

Arranging special classes and segregated environments exclusively for deaf learners has also its own drawbacks. These includes deaf learners and learners without hearing impairment do not have the opportunity to learn in the same neighborhood school setting, lack of access to the exchange of knowledge, expertise, and resources, discrimination of deaf learners which has an adverse effect on their psychological well-being, and it encourages negative attitudes towards diversity (Kirschner, 2012).

4.2.3 Demographic Characteristics of Teachers of Deaf Learners

Table 4.8. below provides an overview of the demographic characteristics of the sampled teachers who participated in the study.

Table 4.8: Demographic characteristics of teachers in the selected Integrated Primary Schools

Variables	Categories	Number	Percent
Gender	Female	26	47.3
	Male	29	52.7
	Total	55	100
Experience	Less than 4 years	6	10.9
	5-10 years	1	1.8
	11-15 years	8	14.5
	16-20 years	7	12.7
	21 years and above	33	60
	Total	55	100
Qualification	Diploma	53	96.4
	Degree	2	3.6
	Total	55	100
Specialisation	Amharic	7	12.7
	Biology	1	1.8
	Chemistry	1	1.8
	Civics	5	9.1
	Educational Planning & Management	1	1.8
	English	15	27.3
	Geography	1	1.8
	Language	1	1.8
	Mathematics	10	18.2
	Natural	2	3.6
	Physics	3	5.5
	Natural Science	1	1.8
	Social Science Social	3	5.5

	Special Needs Education	3	5.5
Variables	Categories	Number	Percent
	Sport Science	1	1.8
	Total	55	100.0

Table 4.8 above shows that, 47.3 % of teachers were men whereas 52.7% were women that indicates proportional numbers of male and female teachers were engaged in teaching deaf learners. Of which 60% of the respondents have 21+ years of teaching experience.

If considered as a drawback, schools have only one teacher employed for each course type: science, sport, geography, language, chemistry, biology, and educational planning and management. Some subject matters, on the other hand, have more than one teacher to cover the loads.

4.2.4 Quantitative Data Results from the Perspective of Teachers

To analyse the responses of participant teachers of deaf learners, a one sample t-test was run to determine the significance of the educational practices used in the Integrated Primary Schools of Amhara Region. The cut-off value or test value of 3 and alpha value of 0.05 were set to test the level of significance. Table 4.9 shows mean, standard deviation, t-values and level of significance.

Table 4.9: Teachers' responses on teaching methodologies, resources used, teaching aids, and assessment methodologies and its availability

No.	Items	N	Mean	SD	T	Df	Sig/p Value
1	Active teaching methodologies to teach deaf learners	55	2.62	1.284	2.206	54	.032
2	Teachers used resources to teach deaf learners	55	2.24	1.276	4.438	54	.000
3	Teaching aids to teach deaf learners	55	2.69	1.245	1.841	54	.071
4	Different assessment methodologies to teach deaf learners	55	2.62	1.284	2.206	54	0.032
5	Availability of resources, teaching aids, teaching methodologies and assessment	55	2.80	1.193	1.244	54	.219

A one sample t-test was run to determine whether teachers used active teaching methodologies to teach deaf learners or not. For active teaching and learning, the mean score was 2.2.6. this mean was lower than the cut-off value which is 3.0 which is a statistically

significant difference, $t(54) = 2.206$, $p = .032$. This indicates that teachers employ low active teaching methodology to teach deaf learners. The mean score on the use of different teaching resources and teaching aids to teach deaf learners was found to be low, scoring a mean value of 2.24 and 2.26 which is not a statistically significant difference, $t(54)$ for both = 4.438 and 1.841, $p = .000$ and .071 respectively.

It can be concluded from this that teachers' experience of teaching deaf learners with the use of various teaching resources and aids was very poor. Similarly, teachers' experience in using different assessment methodologies was low in which the mean is 2.62 which is lower than the cut-off value of 3 which has statistically significant difference, $t(54) = 2.206$ and $p = .032$. Availability of resources, teaching aids, teaching methodologies in the Integrated Primary Schools is very low in which the mean is 2.80 is lower than the cut-off value of 3 which is a statistically significant difference, $t(54) = 1.244$, $p = .219$. The result showed that teachers experience in using different assessment methodologies in the teaching-learning process is problematic and availability of resources, teaching aids, teaching methodologies to support deaf learners in the Integrated Primary Schools is also very limited and are not implemented properly.

This finding was in line with the result obtained from the qualitative data. The availability of resources, teaching aids, teaching methodologies, and assessment techniques was insufficient in the Integrated Primary Schools where teachers did not use active teaching methodologies, locally available and adaptable resources, teaching aids, and varied assessment methodology.

Table 4.10: Teachers' responses regarding their sign-language skills, motivation, feeling, confidence and satisfaction to teach deaf learners

No.	Items	N	Mean	SD	T	df	Sig/p Value
1	Sign language skill of teachers to teach deaf learners	55	1.60	1.029	10.088	54	.000
2	Motivation of teachers to teach deaf learners	55	2.24	1.276	4.438	54	.000
3	Teachers feeling to teach deaf learners	55	2.80	1.311	1.131	54	.263
4	Teachers' confidence to support deaf learners	55	2.62	1.284	2.206	54	.032
5	Satisfaction of teachers to teach deaf learners	55	2.80	1.311	1.131	54	.263

The mean sign-language skill score of teachers was (1.60) which is lower than the cut-off value of 3.0 which is a statistically significant difference, $t(54) = 10.088$, $p = .000$. This

indicates that the sign-language skill of teachers to teach deaf learners is low. The motivation of teachers to teach deaf learners (2.24) is lower than the cut off value of 3 which is a statistically significant difference, $t(54) = 4.438, p = .000$. Similarly, the feeling of teachers to teach deaf learners is found to below, scoring a mean value of 2.80 which is not statistically significant $t(54) = 1.131, p = .263$. Teachers' confidence to support deaf learners is also very low, scoring a mean value of 2.62 which has statistically significant difference with the cut-off value of 3, $t(54) = 2.206, p = 0.032$. Teachers' satisfaction in teaching deaf learners in the Integrated Primary Schools is also low, scoring mean value of 2.80 which has statistically significant difference with the cut-off point of 3, $t(54) = 1.131, p = .263$. From the above results, it could be generalised that motivation, feeling, confidence and the satisfaction of teachers to teach and support deaf learners in the Integrated Primary School is low and also teachers of deaf learners have not sign-language skills to teach deaf learners.

This finding was in line with the result obtained from the qualitative data. The sign language skill, motivation, feeling, confidence and satisfaction of teachers to teach deaf learners was insufficient in the Integrated Primary Schools.

Table 4.11: Teachers' responses on the educational opportunities and challenges of deaf learners

No.	Items	N	Mean	SD	T	df	Sig/p Value
1	Opportunities of deaf learners in the school and in the classroom	55	3.53	1.317	2.968	54	.004
2	Challenges of deaf learners in the school and in the classroom	55	3.64	1.393	3.389	54	.001

For the opportunities of deaf learners in the school and in the classroom, the mean score was 3.53 which is almost equal to than cut-off value of 3.0 which is statistically significant difference, $t(54) = 2.9688, p = .004$. The mean challenges of deaf learners in the school and in the classroom is (3.64) which is almost equal to the cut-off value of 3 which is statistically significant difference, $t(54) = 3.389, p = .001$. This result shows that deaf learners in the Integrated Primary Schools have both opportunities and challenges in the Integrated Primary Schools and in the classrooms.

This result was supported by the information from the qualitative data. Deaf learners at the Integrated Primary Schools had both opportunities and challenges.

Table 4.12: Teachers’ responses on the participation and social relationship of deaf learners

No.	Items	N	Mean	SD	T	Df	Sig/p Value
1	Participation of deaf learners in the extracurricular	55	2.62	1.284	2.206	54	.032
2	Social relationship of deaf learners with other learners	55	2.24	1.276	4.438	54	.000

For the participation of deaf learners in the extracurricular activities of school, the mean score was, 2.62 which is lower than the cut-off value of 3.0 which has a statistically significant difference, $t(54) = 2.206$, $p = .032$. For the social relationship of deaf learners with other learners in the school and in the classroom, the mean was 2.24 which is lower than the cut-off value of 3 which indicates a statistically significant difference, $t(54) = 4.438$, $p = .000$. This indicates that the participation of deaf learners in extracurricular activities and social relationship both in and outside their class is very low and do not reflect the characteristics of an integrated education system.

This finding was in line with the result obtained from the qualitative data. Based on the present data it can be said that deaf students have poor social interaction and are hardly taking part in extracurricular activities.

Inclusive Education promote equity, access, opportunity and the rights of children and learners with disability in education and care, contribute to reducing discrimination against children and learners with disability where they are treated less fairly than their peers. The characteristics of integration in integrated program includes experiences to develop children’s attitudes, skills, and knowledge and to help them make connections across the curriculum, activities that provide for a range of abilities, activities that are both teacher-initiated and directed and child-initiated and directed, whole class, small group, and individual experiences, opportunities for critical and creative thinking, teacher, peer, and self-assessment, and opportunities to experience learning as a meaningful whole. There seems to be considerable agreement that characteristics of effective inclusive schools are most successful in promoting learner achievement and valued post-school outcomes when they establish high expectations for learning that are linked with a clear and focused mission, establish strong instructional leadership with frequent monitoring of learner progress,

promotion of diversity, acceptance, and belonging; what is more, success can be achieved through ensuring the availability of formal and natural supports within the general education setting, providing services and supports in age appropriate classrooms in neighborhood schools, ensuring access to the general curriculum while meeting the individualized needs of each learner and providing a school-wide support system to meet the needs of all learners (Karl, 2018).

Table 4.13: Teachers’ responses on the supports given to deaf learners

No.	Items	N	Mean	SD	T	Df	Sig/p Value
1	Supports from the administration to teachers to teach deaf learners	55	2.58	1.397	2.220	54	.031
2	Support of the school to deaf learners learning	55	2.58	1.397	2.220	54	.031
3	Attention of the school to the professional growth of teachers	55	2.80	1.311	1.131	54	.263
4	Help from teachers to deaf learners to do things for themselves	55	2.62	1.284	2.206	54	0.032
5	Help from teachers to deaf learners to understand the content	55	2.80	1.311	1.131	54	.263
6	Administrators’ readiness to create welcoming school environment	55	2.58	1.397	2.220	54	.031

In Table 4.13, the supports from the administration to teachers to teach deaf learners in the Integrated Primary Schools score, the mean was 2.58 lower than the cut-off value of 3 which is a statistically significant difference, $t(54) = 2.220$, $p = .031$. For the support of the school to deaf learners in their learning, the mean was very low which was 2.58 which is statistically significant difference, $t(54) = 2.220$, $p = .031$. Similarly, the attention of the school to the professional growth of teachers of deaf learners is found to be low, scoring a mean value of 2.80 which is a statistically significant difference, $t(54) = 1.131$, $p = .263$. Help by teachers for deaf learners to do things for themselves is low, scoring a mean value of 2.62 which is statistically significant difference, $t(54) = 2.206$, $p = 0.032$. Help by teachers for deaf learners to understand the content in the Integrated Primary Schools is also low, scoring a mean value of 2.80 which is a statistically significant difference, $t(54) = 1.131$, $p = .263$. Administrators’ readiness to create a welcoming school environment in the Integrated Primary Schools is also low, scoring with a mean value of 2.58 which is a statistically significant difference, $t(54) = 2.220$, $p = .031$. This indicates that the support from the administration for teachers to teach deaf learners, support of the school to deaf learners’ learning, attention of the school to the

professional growth of teachers, help by teachers for deaf learners to do things for themselves, help by teachers for deaf learners to understand the content, and administrators' readiness to create a welcoming school environment in the Integrated Primary Schools of deaf learners are very low.

This finding was in line with the result obtained from the qualitative data. The supports from the administration of the schools to teachers to teach deaf learners, the attention of the school to the professional development of teachers, the help from teachers to deaf learners to do things for themselves, the help from teachers to deaf learners to understand the content and the administrators' readiness to create welcoming school environment in the Integrated Primary Schools were found to be low.

The primary purpose of special needs education, according to the National Council for Special Education (2014), is to provide services for learners with impairments in inclusive environments or by making specific instructional arrangements for them. All children, including learners with impairments have the freedom to obtain care and services at all levels of education, from pre-primary education to higher education. Supports may be offered in special schools for children with special needs; in special classes attached to ordinary schools; and in integrated environments in ordinary schools. A child with special educational needs must be embraced and taught among children who do not have such needs in an inclusive environment. Inclusive education is a means of adapting the household, school and the broader society to accommodate all individuals with special needs regardless of their physical, behavioral, social, emotional, linguistic difficulties. All children, including children with hearing disability, are entitled to receive various support options that are suitable to their needs. The goals of the services given to learners with hearing impairment are the same as with all children with disabilities. Services for deaf learners should be about allowing their academic, psychological, social, emotional and physical capacities to live complete and independent lives in accordance with their abilities and disabilities, so that they can contribute to their communities, cooperate with others and continue to learn throughout their lives. Educating deaf learners in inclusive environments is about helping them grow spiritually, morally, cognitively, mentally, imaginatively, esthetically, socially and physically in all facets of their lives.

According to Loreman (2017), there are seven foundations of support for learners with disabilities in inclusive education. These are the development of positive attitudes, supportive policy and leadership, teaching and learning processes in schools and classrooms, versatile

curriculum and pedagogy, participation of the community, constructive reflection and required training and services. An estimated 15% of the world's population has disability. Globally, 93 million children are estimated to have moderate and severe disabilities, and many of these children are out of school. That implies that they are not given the chance to motivate themselves and represent their communities as individuals. In terms of educational opportunities and achievement, the lack of funding in comprehensive schools makes children with disabilities among the most disadvantaged (WHO, 2018).

4.2.5 Qualitative Data Results from the Perspective of Deaf Learners, Teachers and Principals

The qualitative data was analysed using the data collected from the interviews and observations. Interview is a primary data generation technique in which the interviewee orally provides the required information in a face-to-face or non-face-to-face situation. In many research situations, interviews can be used efficiently to gather useful data about individuals. A variety of forms of interviewing are available, including individual face-to-face and face-to-face group interviews. Interviewing involves asking questions and obtaining answers from participants in the study. There may be structured, semi- structured or unstructured interviews (Yalew, 2016). Another basic means of data collection to learn about the research problem is observation. Observation is a data collection instrument that helps to gather detailed information about concepts related to the purpose of the study. It is a systematic process of observing, recording and classifying the occurrence of a covert behavior in some real-life situations according to some planned scheme. There are participant approaches of observation and non-participant approaches of observation. Observation can also be classified as unstructured and structured (Belay, 2014).

This part presents the data collected from interview and observation. The overall aim of the study was to investigate educational opportunities and challenges of deaf learners in the Integrated Primary Schools of Amhara Region. Deaf learners, teachers and principals in the Integrated Primary Schools were interviewed and observation was made. The major focus of the interview and the observation was to assess the communication and instructional strategy, deaf learners' social interaction, the methodology employed by teachers, accessibility of teaching materials, lack of teaching materials, resource rooms and library services, assessment methodologies used by teachers, educational challenges of deaf learners, physical learning environment of the integrated primary schools, educational opportunities of deaf learners' and

possible solutions suggested by the participants to decrease the educational challenges of deaf learners.

The interview is a widely used data collection instrument, essentially when the relevant information cannot be observed directly or be obtained easily by means of questionnaires. The interview is a data collection method used by research experts and it has different natures and forms according to the nature and purpose of the study. The design or structure of the interview varies. In some cases, an interviewer can interview a person at a time called an individual interview and an interview with a group of people commonly referred to as a group interview at the same time. While the latter is cost-effective in certain situations, in the presence of others, interviewees may typically refuse to disclose such information or experiences in groups. The importance of interviews as a method for data collection requires greater versatility, typically labeled as concentrated, profound and non-directive. Instead of general lines of inquiry about the case, the focused interview aims at some unique event or experience. The in-depth interview searches for psychological and social causes and reflects on them. The non-directive interview gives interviewees a lot of space to speak about the subject under investigation (Belay, 2014).

Data was collected from deaf learners, teachers and principals through interviews about the practices, opportunities and the educational challenges in the Integrated Primary Schools. Individual interviews were conducted with 40 deaf learners from 10 Integrated Primary Schools, each from Grades 5, 6, 7, and 8. In the interviews, the researcher with an assistant interpreter of sign language (SNE teachers who were teaching deaf learners in special classes from Grades 1–4) carefully noted the responses of the deaf learners. The data were finally synchronised between the researcher and the sign-language interpreters.

In addition, 10 teachers and 10 principals from the selected Integrated Primary Schools (one teacher and one principal from each Integrated Primary Schools) were interviewed about the educational practices, opportunities and challenges of deaf learners in the Integrated Primary Schools. It is important to know how learners understand the lesson, and it is also important for teachers to satisfy the unique needs of learners so as to practice best teaching and learning process. For observation purposes, integrated classes from Grades 5, 6, 7 and 8 were selected, and then each school compound and each classroom were observed. The observation data collected from different classrooms are found to be similar. In the observation time, each Integrated Primary Schools' classroom was observed once for 50 minutes because, in Ethiopian schools, one period for a subject is 50 minutes. In total, 40 observations were

conducted at 10 different Integrated Primary Schools which means in 1 Integrated Primary School, there were 4 observations from Grades 5–8. Consequently, it was significant to collect qualitative data from deaf learners, principals and teachers of deaf learners in the Integrated Primary Schools.

As mentioned in the first chapter part of the qualitative data results, the purpose of this research was to assess the educational practices, opportunities and challenges of deaf learners in the Integrated Primary Schools found in Amhara Regional State. The major findings of this qualitative part were based on the qualitative research questions. And the analysis is presented in thematic form from the responses of participants through interviews and observations. The sources of data were provided to the researcher by deaf learner, principal and teacher respondents organised and analysed qualitatively. The main qualitative findings of the study are presented in the following nine (9) themes.

1. Communication and Instructional Strategy used in the Integrated Primary Schools
2. Social Interaction of Deaf Learners in the Integrated Primary Schools
3. Teaching Methodology of Integrated Primary School Teachers
4. Lack of Teaching Materials, Resource Rooms and Library Services
5. Assessment Methodologies used by Teachers of the Integrated Primary Schools
6. Educational Challenges of Deaf Learners in the Integrated Primary Schools
7. Physical Learning Environment of the Integrated Primary Schools
8. Educational Opportunities of Deaf Learners in the Integrated Primary Schools
9. Possible Solutions Suggested by Participants to Decrease the Educational Challenges of Deaf Learners

4.2.5.1 Communication and Instructional Strategy Used in the Integrated Primary Schools

In this study, the researcher observed the instructional and communication strategies used by teachers when they taught deaf learners in the Integrated Primary Schools. Educational philosophers agree that communication and instructional strategy are a very important element to have effective teaching and learning process (Preiss & Wheelless, 2014).

Instruction in this study refers to teaching methods and materials used by teachers to enable the learning of deaf learners and learners without hearing impairment. Instructional methods

are used in the teaching-learning process, and involve the teaching methodologies that are used in the presentation of lessons by teachers and the participation of learners in the classrooms (Edwards, 2018). Teachers use a variety of instructional skills such as communication, negotiation, teamwork, leadership, and the comprehension of different instructional perspectives to help learners improve these skills as they participate in educational activities with others. This also helps students recognize their own abilities and those of their peers (Alemayehu, 2017).

Besides, instructional strategy is the strategy that uses active learning and teaching methods and best communication media that teachers of deaf learners apply in the classrooms. Thus, according to Preiss & Wheelless (2014), the instructional strategy would be appropriate under the following circumstances:

- The motivation of teachers: many teachers strive to seek out ways of accomplishing the teaching-learning better.
- Learner motivation: it is hoped that learners will not only get a deeper understanding of the issues involved, but also that their motivation and excitement will be improved by using active learning methodologies.
- Classroom's dynamics: each learner and teacher bring a range of talents, experiences, needs and aspirations into the classroom. Such variables can play a major role in influencing class room dynamics.

Employing the correct type of instructional strategies also enhances teachers' preparation and experience. The profession teaching requires active pedagogies, and it is crystal clear that teachers have varying experience skills development trainings. The learning environment and the teachers' instructional strategies have an impact on the attitudes and actions of the learners in the class. When preparing lessons, teachers must take into account the various instructional strategies being used and ensure that their classrooms are comfortable for learning. Active teaching and learning strategies must be used to support the educational environment in order to achieve this (Greenwood, 2013).

However, the researcher discovered during the interview with deaf learners that teachers were not well trained as a result of problems with their instructional experience. Despite the implementation of active learning strategies and instructional approaches, deaf learners complained that they had difficult time learning in the classroom. They verified that teachers lacked the knowledge and skills necessary to impart concepts and subjects in integrated classrooms with the use of active instructional practices. According to deaf learners, the

inclusion of deaf learners in the Integrated Primary School classes without giving them the appropriate instructional strategies and teaching staff members who were not skilled in sign language was seen as overlooking their educational opportunities rather than meeting their instructional needs.

One deaf learner asserted that "*in the integrated classrooms, our teachers were presenting their courses with oral language without any oral language translator or sign-language interpreter,*" and another deaf learner stated that "*teachers rarely use gestural cues with oral language*". However, this instructional strategy of teachers was ambiguous and did not provide any significance for deaf learners to properly attend the session.

These perspectives of deaf learners indicated that oral instruction was used by teachers in the Integrated Primary Schools, which limited the understanding, interaction, and participation of deaf learners in the Integrated Primary Schools. According to the researcher's observations, deaf learners did not actively participate in their education and did not receive the same instructional strategies as learners who had not hearing impairment. In addition to this, deaf learners were dissatisfied in their education in the Integrated Primary Schools. In line with this, researchers have shown that, when deaf learners have not received appropriate types of instructional strategies, they have not the interest to participate in the classrooms. Furthermore, the absence of appropriate instructional strategies limits the understanding and participation of learners in the classrooms (Ting & Gilmore, 2012). One of the respondents supports this argument as follows.

Most of our teachers don't know anything about us, and most of them didn't use the appropriate instructional methodologies and teaching materials, such: perception (visual aids) like picture or video, and none of them do an accommodation for us. Teachers did not clearly explain the homework assignments they gave us to complete at home. Teachers frequently advise us to approach friends who do not have hearing impairments for assistance with our assignments. We are not allowed any extra time during exams, hence we received poor grades.

The communication of deaf learners with other staff members of the Integrated Primary Schools was another concern that came up during the interview and observation period. Communication is the process of sharing or exchanging ideas, feelings, thoughts, and messages with others at a specific time and place in order to transmit information. Although it

need not be verbal or written, there must be both a sender and a receiver for there to be actual communication. Communication is the corner stone and the foundation of the teaching-learning process. A successful school is one where there is effective communication (Alemayehu, 2016).

Deaf learners asserted that the entire community in the Integrated Primary Schools used oral language without interpreters while interacting with teachers and other members of the school community. They said that everyone at the integrated school did not know or utilize sign language even for basic communication, with the exception of the SNE teachers who taught deaf students in Grades 1-4 and deaf students themselves. They believed that they had problems in the school due to communication barriers. They also thought that the communication level of learners, teachers and other staffs without hearing impairment varied greatly. The only staff members of the Integrated Primary Schools who could communicate even at a basic level were deaf students and SNE teachers.

Observations of the classroom and the school compound were conducted to ascertain whether the communication and instructional strategies used in the Integrated Primary Schools addressed the learning needs of deaf learners or not. Additionally, teachers and learners without hearing impairment outside of the classroom and during the teaching and learning process inside the classrooms were also observed. According to the researcher's observations, many teachers and learners without hearing impairment of the school community believed they must speak quite loudly when assisting deaf learners both inside and outside of the classroom. However, researchers thought that teachers and learners without hearing impairment needed to be proficient in sign language, be able to communicate with deaf students effectively, speak to them in a normal conversational voice, and speak slowly and clearly (Tadesse, 2019).

Deaf learners who were interviewed in Integrated Primary Schools stated that they were unable to discuss their problems and academic concerns with learners, teachers, principals, and support staff without hearing impairment. Due to their sign language proficiency and nonverbal communication, deaf learners believed that they had better communication with SNE teachers than other school members who do not know sign language.

The participants also provided a variety of viewpoints on how deaf learners communicate. Teachers that took part in the interview revealed that many deaf learners have communication problems. Their spoken language development was delayed, and as a result, they struggled to

communicate, which adversely affected their academic performance. This issue is crucial because deaf learners will keep failing exams without the appropriate communication techniques, which will impede their academic and professional development and prevent them from achieving self-sufficiency. In addition, another interviewed teacher said that: *“many deaf learners enter in the Integrated Primary Schools lacking fluency in either sign language or spoken language. Parents of deaf learners send their children to the Integrated Primary Schools at their early age without teaching sign language skill”*. Therefore, deaf learners require the right kinds of language and communication strategies in order to succeed academically (Alemayehu, 2016).

The instructional process is successful if meaningful communication exists between a teacher and deaf learners through appropriate types of instructional strategies (Degnesh, 2016). However, during the interviews, deaf learner participants said that: *“We deaf learners faced problems while the teacher speaks orally in the instructional process. Thus, it is not possible to get appropriate explanation of lessons without hearing any sound unless teachers start to use sign language or assign sign-language interpreters in the class.”* Other deaf learners added that *“we cannot ask and answer any questions to our teachers and as well communicate with peers while the instruction is going on oral language”*.

Deaf learners were interviewed by the researcher to understand more about the communication practices used in the school's surroundings and in the classrooms. All of the deaf learners who were interviewed stated that they would be unable to properly engage with learners and teachers inside the school's boundaries and in the classroom during lessons. In addition, many deaf learners reported that they did not grasp what the teacher and other learners said during the teaching-learning process in the classroom. They were unable to participate in discussions and other classroom activities like learners who could hear well did because they were unable to comprehend the teachers' lectures. Due to the absence of sign language skill among teachers and learners without hearing impairment, deaf learners were unable to communicate with them in the classroom. All of the deaf learners who were interviewed said that they frequently encountered problems of communication in the school compounds and during class. With the exception of SNE teachers, they claimed they had communication difficulties with all of their teachers. They added that teachers applied their utmost commitment to clearly convey lessons to deaf learners, but the deaf were in difficulty of understanding the lessons due to lack of sign language interpreter. They further responded that such things forced deaf learners to sit in the classroom without understanding the lesson and they are forced to depend on their classmates for further clarification. Thus, deaf learners revealed the existence of communication barriers

with their teachers in the Integrated Primary Schools.

Instructional and communication strategy is crucial for effective learning and interpersonal relationships in the classroom. All learners must participate fairly during communication. Participation can affect a learner's capacity to initiate and take part in interactions with peers and deal with academic difficulties. Equal participation of deaf and hearing learners can promote the following outcomes: positive interactions between deaf and hearing students, enhanced self-awareness and wellbeing, increased ability to comprehend a range of thoughts and emotions, development of a variety of language and social skills, and meaningful participation in education (Alemayehu, 2016).

The principal participants thought that the communication and instructional strategy difficulties faced by deaf learners in the Integrated Primary School were brought on by the issue of hearing impairment, which results in deaf learners' inability to hear sounds. The interviewed deaf learners disagreed with this assertion and stated that: *“the communication and instructional strategy challenges of deaf learners in the Integrated Primary Schools are not due to the problem associated with hearing impairment but are due to the absences of proper communication and instructional strategies used by teachers in teaching-learning process. We can learn like other learners and perform well if accurate communication and instructional strategies are used by teachers.”* Some deaf learners stated that: *“there are various words used by teachers which deaf learners could not understand and difficult to communicate with them. Being unable to understand lessons, deaf learners prefer to sit idle though they (we) have a lot to ask. Sign language interpreters play great role to make such difficult words clear either through sign language or fingerspelling. It is very difficult for us to understand the lesson with these problems. It is, therefore, wiser to recruit interpreters for Integrated Primary Schools”.*

About the problem with home done works, one of the deaf learners said that: *“Many times, I missed information and come to the school without doing my homework. Sometimes homework is too difficult and I am unable to do it myself at home because I am not supported by anyone and no one in my family and around my home can communicate me using sign language. So, I often copy home tasks from my schoolmates.”* During classroom observations, the researcher noticed that in grades 5th, 6th, 7th and 8th, there were lots of deaf learners who were unable to communicate with their teachers and friends and unable to follow the instructions of teachers and were uncomfortable to work in small group activities.

Teachers' response to the how of their lesson presentation reads as follows:

"We only use oral language to teach both learners with hearing impairment and deaf learners. All communication in the classroom was carried out through oral language; we applied different teaching methods like lecturing, questioning and answering and discussion, which all are implemented using oral language." They added that *"since we have not sign-language skills, deaf learners are not given the opportunity to employ their sign language skill to provide answer and/or ask questions. For activities to be done in class, we prefer to provide the opportunity for learners without hearing impairment."* In addition to this, all teachers responded that *"even if we are interested to teach deaf learners using sign language, we are not trained and we do not have sufficient sign language skills to communicate with deaf learners"*.

Teachers must be aware of and recognize the needs of their learners in order to deliver the necessary services (MoE, 2016). All interviewed teachers confirmed that services were not offered in classrooms and that the needs of deaf learners had not been taken into consideration. They asserted that they only use oral language to deliver services that meet the needs of both learners with and without hearing impairments. Based on teacher respondents of the interview, deaf learners' participation is not satisfactory. This mainly due to communication barrier and poor instructional methods. Sign language proficiency training is thus highly required to facilitate effective communication. Deaf learners can freely understand the course material, develop their communication skills, perform better, and pass on their sign language knowledge to future generations if taught with well trained teachers who can efficiently employ sign language. That is, sign language instruction has to be given due emphasis in teacher training institutions (Alemayehu, 2016).

The process of instruction creates the conditions that enable the achievement of specific planned changes in learners' behavior. Three basic steps might be thought of as being involved in instruction. The first involves choosing the material that will be taught to a student, the second involves carrying out the actual instruction, and the third involves assessing the behavior that was learnt (Case, 2015). Instruction is crucial for deaf or hard-of-hearing students since they don't have standardized easily accessible learning environments when they first enter school. As a result, the educational growth of deaf learners is continually lagging behind (MoE, 2018).

Human beings use language to transfer a wealth of information in culture, science and the arts from one generation to another. Language does not only refer to the verbal one that can be

heard, but it also refers to sign language through which deaf learners exchange information (Alemayehu, 2016). The sign languages used by deaf people are true natural languages with their own grammatical rules. As the spoken languages are different throughout the world, sign languages also vary from country to country. Nevertheless, the deaf people from different countries with different sign languages have unique skills in communicating with each other more easily than the hearing people with different spoken languages (ENAD, 2018). The main observed problem in Integrated Primary Schools is that teachers and non-deaf students do not use sign language.

Sign language is made up of an organised system of signs including gestures, mimes, and facial movements. Sign languages and spoken languages have similarities and differences. Both have their own grammar and are used to receive and transfer knowledge. Sign language is usually used by deaf people, or hearing ones to communicate with deaf people. On the other hand, sign language is visual while spoken language is auditory. In sign language, the hands and the body speak, the eyes listen, while in spoken language tongues speak and ears listen. Spoken languages serve the overwhelming majority of the world community while sign languages are mainly limited around the deaf community. The other unique character of sign language is that it still did not have adequate writing system. Like other spoken languages, there are many different sign languages in the world which can be elaborated, codified, and standardized (ENAD, 2018).

The deaf people in Ethiopia, who are using sign language as their first language, constitute a linguistic minority whose human and constitutional right should be addressed along with linguistic institutes. In Ethiopia, sign language begun to be used after 1960s in connection with the appearance of American and Nordic missionaries who opened schools for the deaf. The missionaries brought the sign language used in their own countries. For more than 50 years, the foreign languages were assimilated with Ethiopian deaf culture and sign language (ENAD, 2018).

During classroom observation, the researcher noticed that the majority of students have no hearing problem and only few deaf learners were there together with hearing ones. The classrooms were not well ventilated, not well lit and were untidy. At each desk, deaf and hearing learners sat together. Teachers do not use sign language while entering to class; they rather greet all orally. Then the teachers wrote lesson topics on the blackboard and introduced them through talking and in written form. They then directly wrote questions on the blackboard and invited all learners to answer the questions written in the blackboard. Learners

without hearing impairment were participated enthusiastically, whereas deaf learners did not participate in providing answers to question. After teachers asked learners to respond to oral questions, most of the time, learners without hearing impairment participated and got more opportunity. Moreover, the researcher understood that, before deaf learners could understand the concept and reflect on it, learners without hearing impairment were observed to follow the teachers' oral presentation and give responses for questions raised. Teachers did not use sign language and thus deaf learners could not follow the presentation of teachers. Teachers were observed to approve the responses of learners without hearing impairment and passed onto the next part of the lesson without checking deaf learners' understanding or responses.

In addition, in collecting answers from the learners, the teacher reflected in oral language on what learners said. The teacher lectured and asked questions frequently, and learners without hearing impairments participated in answering the questions. In the class, during the teaching-learning process, the learners without hearing impairment and teachers understood each other but deaf learners were overlooked. Teachers also used observation and reflection of learners through oral language to check whether the learners understood the lesson or not. The pace of the lesson was too fast for deaf learner to follow. The participation of deaf learners was not equal to learners without hearing impairment. The researcher observed that, the teacher gave class works to the learners that they were expected to complete in 15 minutes. Then the teacher checked the work briefly and gave feedback through oral language. The time allocated for class activities are not enough to be accomplished by deaf learners. When teachers ask questions especially during the lecture time, learners without hearing impairments were motivated by their teachers and the responses from deaf learners were not given and they were not motivated by their teachers to give answers for the raised questions. Sometimes when the teachers asked whether all learners are clear on what had been discussed, the learners without hearing impairment orally responded in the affirmative but deaf learners did not. The teacher then moved on to the following section after concluding that it was the collective response of all learners. Then, finally, the teachers responded to the questions raised by the learners.

Differentiated instruction is beneficial for both learners with and without disabilities in inclusive school environments. Learners exhibit a variety of learning abilities, academic levels, learning styles, and learning preferences, necessitating personalized instruction in order to meet their specific needs (Bender, 2012). Differentiated instruction acknowledges the importance and value of each person; it enables learners with diverse abilities and disabilities from all backgrounds to show what they understand, recognize and able to do (Adami, 2014). Educators should research or perceive on the needs of individual learners and enable them by

using differentiated educational strategies to meet and exceed defined educational expectations (Levy, 2018). Differentiation is a measurement or action taken by a provision of education, according to the MoE (2016), which has the effect of assisting a learner with disability like those having no disability. This service provision should involve enrollment, facility fulfillment, session approaches, and other required help by people with disability.

Flexibility in content, process, and product is the essence of differentiated teaching, focused on the strengths, preferences, and learning styles of learners. Content is what learners can master or understand from the teaching; method is how the learners need to complete the content of the learning; and the consequence is how to see or observe the learning (Bender, 2012; Cox, 2008). Each child is taught the same curriculum in the content field, but, quantitatively or qualitatively, it may be different (Adami, 2014; Levy, 2018). How teachers are teaching and the strategies learners employ are part of the process. Teachers need to change their style of teaching to match diversified needs of learners by finding out where learners are when they start the process and building on their prior knowledge to advance their training (Adami, 2014; Levy, 2018). The result is the form in which learners display what they have learned. It must represent the styles and skills of learner learning (Levy, 2018).

4.2.5.2 Social Interaction of Deaf Learners in the Integrated Primary Schools

Social interaction is the building of relationships between two or more individuals. Among the various facets of social interaction are a learner's social standing, which includes whether or not their peers approve of them, and friendships, which consider the quantity, caliber, and stability of long-term peer relationships. Social interaction influences people, affects social roles and status, and encourages competition and communication (Yohanna, 2020). According to some researchers, learners with hearing impairments face more social difficulties than their peers who do not have the hearing impairment. To assist and foster the social interactions of deaf learners, it is crucial for their peer learners who do not have hearing impairments to have good peer acceptance and long-lasting friendships. Such connections are associated with a variety of advantages for deaf learner's psychological health and academic performance. This could potentially reduce risk factors and increase resistance to any future issues in later life (Preiss & Wheelless, 2014). The ability to have effective social interaction is a crucial component of development for every person, whether they are deaf or learners without hearing impairment. Learners' social interaction and friendship are linked to a variety of psychological wellbeing characteristics and may act as buffers against life's stresses and developmental issues, such as those experienced by deaf learners (Batten, Oakes & Alexander, 2013).

The development of healthy peer interactions is crucial for the socioemotional development of deaf learners, developing emotional health and language while simultaneously enhancing communication abilities. Peer relationships give youngsters the chance to practice fundamental social skills such as helping, exchanging, and conversing with various people (Mulat, 2014). According to studies, deaf learners who engage in social activities establish friends and form relationships have higher self-esteem, better emotional regulation, better school adjustment, and more favorable attitudes toward learning (Tefera, 2019). However, Georgina et al. (2013) reported that learners with hearing impairment, who lack social relationships, close positive peer connection, and who experience peer rejection experience negative effects on their self-esteem, emotional control, and school transitions. With deaf learners who live alone, there are more problematic issues, such as sadness, anxiety, and poor personal perception. Likewise, deaf learners may dislike their institution and have low academic performance.

As a result, social interaction may offer deaf learners' chances to develop social, emotional, and cognitive skills, as well as boost their general wellbeing, academic success, and self-confidence. Nevertheless, in addition to the difficulties they already experience, peer rejection or a lack of social interaction might cause deaf learners to experience additional psychosocial and academic problems. The issue of social interactions and relationships between learners with and without hearing impairment is undoubtedly a substantial and expanding source of concern (MoE, 2016).

The information gathered through interviewing teachers, deaf learners, and school principals revealed that social interaction barriers were the main obstacles holding deaf learners back to interact with other hearing students in their class. The data collected through observation also confirms this idea.

On the interviewees, some of deaf learners stated that:

We have not satisfactory interactions with learners without hearing impairment who couldn't use sign language. In the break time out of the classrooms, there were always problems related to our social interaction with hearing learner and social interaction gap between deaf learners and learners without hearing impairment was observed. Because of this, we cannot express our feelings using sign language and sometimes we stop our social interactions with learners without hearing impairments. This makes us mostly excluded from the social interactions in the

Integrated Primary Schools. When we want to have social interaction and academic support with learners without hearing impairments, they feel worried for having social interaction and functional relationship with us by using sign language. As a result, we experience positive social interactions with deaf learners but not with learners who have not hearing impairment.

One of the deaf learners added that:

I enjoy interacting socially with deaf learners since our interactions were better than those without hearing impairments, and it was simple to interact with deaf learners because we speak the same language to understand one another"

Another Deaf learner said:

"I have both friends of learners without hearing impairment and deaf learners in the Integrated Primary Schools. But my preference is to be with deaf learner friends because they have better understanding of my feelings and they communicate with me in the same language."

These statements point to the fact that deaf learners have intimate relationship and good social interaction among deaf learners because of their ability to communicate with sign language (Degnesh, 2016).

During the observation made by the researcher, the researcher observed that many of the deaf learners prefer to be with deaf learner friends rather than learners without hearing impairment friends for academic, social and recreational reasons. This evidence was in line with the response obtained from interviewed teachers. This showed that deaf learners had a better social relationship and interaction with deaf learners rather than learners without hearing impairment (Degnesh, 2016).

Interviewed teachers recommended that the owners of the Integrated Primary Schools should offer sign language training to all learners in the Integrated Primary Schools in order to promote positive social interaction between learners without hearing impairment and deaf learners and to ensure the effective implementation of inclusion. Accordingly, the researchers recommend that the teaching and learning processes in inclusive classrooms necessitate social interaction between deaf learners and learners who do not have hearing impairments. Social interaction among all learners' fosters learning and strengthens cooperation, learners with hearing impairments can also pick up interpersonal skills from their peers, siblings, and

teachers (Alemayehu, 2017).

When a satisfactory interaction can be had, Tadesse and Dawit (2019) have stated that the majority of learners with hearing impairment are entirely capable of creating pleasant social interactions with students without hearing impairment. In support of this, Tadesse (2019) also found that in inclusive classroom settings, deaf learners perform better academically and have better social relationships when there are positive interactions between learners with and without hearing impairment. According to these research evidences, there are better outcomes for academic advancement, social development of deaf learners, and favorable attitudes and acceptance of deaf learners among their peers without hearing impairment when there are appropriate social interactions.

In the Integrated Primary Schools, the deaf learners were learned in the inclusive classrooms with learners without hearing impairments. Although inclusive schools need worthy social interaction, the school seems to be merely called inclusive without special considerations that fulfill the social requirements of the learners with hearing disability. Based on the researcher's observation, the Integrated Primary Schools could not create social interaction accessibility that considers the social needs of deaf learners. Integrated Primary School principals' reports on the social accessibility of these schools for learners with hearing impairment state that since these schools did not encourage deaf learners to interact with learners without hearing impairment, deaf learners primarily interact with other deaf learners rather than learners without hearing impairment. Regarding the same issue, teachers who were interviewed said that Integrated Primary Schools lack social accessibility, which promotes social interaction between deaf learners throughout various activities in the classrooms and school surroundings.

Similarly, the interviewed deaf learners stated:

“The Integrated Primary Schools have not a welcomed social environment that creates accessibility for deaf learners' awareness about learners, and the ways of information gathering”. In the school compound, the social interaction of deaf learners was not progressive. The interviewed teachers claimed that: “the deaf learners usually interact with their deaf peers, and sometimes with learners without hearing impairments”.

The deaf learner informants also explained, “Most of the time we have social interaction with deaf learners in the school compound and we have little social interaction with learners without hearing impairment”. As evidenced from the observation of the researcher, in the

Integrated Primary Schools, deaf learners usually have social interaction with their deaf peers than learners without hearing impairment; this was because the Integrated Primary School community without hearing impairment could not have sign-language skill. When deaf learners want to establish social interaction, they prefer with those who have hearing impairment because of their sign-language skill.

Additionally, the participation of deaf learners in different social activities and clubs were very limited. An interviewed deaf learner from the Integrated Primary School explained that, *“I don’t have good social interaction with the school community members who have not hearing impairment, and participation of deaf learners in different school activities was very limited. The reason for such a deficit is being unable to find hearing people who are able to communicate through sign language in the school compound”*. Similar to these ideas, based on the classroom observation of the researcher, the social interaction of deaf learners in different activities of the Integrated Primary Schools was not satisfactory. This implies that the relationship between the deaf and the hearing ones needs further effort to be built.

Besides, to understand the interaction of deaf learners in the Integrated Primary Schools with the learners without hearing impairment and the school community, school compound observation was carried out. The social interaction between deaf learners and the school community without hearing impairment such as learners, teachers, administrators, guards, and librarians were observed on different occasions. Though it was not easy to differentiate deaf learners and learners without hearing impairment at a glance, with repeated visits to the schools and the help of SNE teachers, the researcher was able to identify deaf learners’ social interaction. It is thus realized that deaf learners used sign language and learners without hearing impairment used oral language. In some occasions like flag ceremony, break time, sport sessions, and after-school time, deaf learners are usually observed in the playgrounds.

As they arrived to school early in the morning, they all have shown interest to spend time in class with their deaf friends and siblings. Deaf learners were observed walking with each other most of the time and sometimes with other learners without hearing impairment when they arrived at school. Most deaf learners had deaf friends in the school and they thus arrived together. In the school at the flag ceremony, learners without hearing impairment lined up in their class groups and they sang the national anthem. Mostly, deaf learners did not attend the flag ceremony. In the sports field of the school, deaf learners and learners without hearing impairment were observed playing together with each other like in football and other games.

Although there was a good social atmosphere between deaf learners and learners without hearing impairment on the sport fields, most plays were dominated by learners without hearing impairment since they used oral language. When the researcher observed the school compound, SNE teachers used sign language to communicate with deaf learners, whereas other members of the school community without hearing impairment used oral language to communicate with deaf learners. Deaf learner's social behavior has been discovered to be more distant and less friendly than their peers without hearing impairment; hence, the deaf ones feel as they are rejected and ignored. Deaf learners are far more likely to have a total lack of social interaction in the integrated classes than the learners without hearing impairments (Batten, Oakes & Alexander, 2014).

4.2.5.3 Teaching Methodology of Integrated Primary School Teachers

The principles and techniques that teachers employ to instruct and enable learners to study both within and outside of the classroom are included in the teaching methodology. The subject matter to be taught and the type of learner both have an impact on the teaching approaches. A teaching strategy must be related to the characteristics of the learner and the sort of learning it is meant to facilitate in order to be effective. There are suggestions for the development and use of teaching techniques that consider not only the content of the subject but also how students learn (Hariyanto, Soetarno, Joko & Gunarhadi, 2019). There are two major categories of teaching methodologies that are mostly practiced by teachers. These are teacher-centered and learner-centered teaching methodologies. In a teacher-centered teaching approach, teachers are the primary authority figure, while learners are seen as passive participants whose primary function is to obtain information passively through lectures and direct instruction with a final testing and assessment target. In the learner-centered teaching approach, while teachers are the figure of authority, teachers and learners play an equally active role in the teaching-learning process. The teacher's primary function is to mentor and promote learning and overall understanding of content. Students are evaluated by both formal and informal kinds of assessment, including group assignments, learner portfolios, and class participation (Victoria, et al., 2016).

Teaching methods help all learners to learn in inclusive settings, but some particular teaching strategies are effective in teaching learners with hearing impairment. This allows learners with hearing impairment to use an interpreter, lip-reading relying on visual clues or using a hearing aid with a restricted range, use assistive listening aids such as associated with increased odds if accessible in the lecture room (Victoria, et al., 2016). Flexible delivery of teaching materials

via electronic media is also particularly beneficial for learners who have difficulty accessing knowledge in the traditional ways. New technology, the internet in particular, can be used to bridge many obstacles for hearing loss learners to ensure that lists of subject-specific vocabulary and technical terms that learners will need to learn are made accessible early in the course (Tadesse & Dawit, 2019).

Through the interviews, deaf learner teachers realized that it was challenging to apply a single teaching strategy because, like all learners, deaf learners have varied learning needs; in other words, not all deaf learners' needs can be satisfied by a single method. Teachers agreed that adopting a variety of teaching techniques to instruct deaf learners is essential, but they emphasized that this should depend on the situation of the learners, the learning environment, and administrative concerns. Supporting this issue, deaf learners said that teachers mostly used teaching strategies like lectures, questioning and answering and group discussion depending on the nature of the topic. The problem here was these teaching strategies were not appropriate for deaf learners and were more appropriate for learners without hearing impairment. Deaf learners stressed that all teaching strategies are meaningless without applying sign language.

When deaf learners asked about the teaching methods usually employed by their teachers, they said that teachers used oral presentations, and that deaf learners used lip-reading to understand the lessons. As the researcher's evidence during the classroom observation made in the teaching and learning process, teachers use oral language and speak very fast without revising and summarising previous lessons. As a result, deaf learners were unable to follow the lesson because they were unable to keep up with the teacher's the teacher's oral language pace. Besides, teachers did not give adequate attention to deaf learners.

Deaf learners indicated that:

“All teachers do not know how to use sign language and many of them are not well trained about inclusive teaching approach. They have poor attention to deaf learners and none of them do any accommodation for us. It seems like they think what they do is right for them but unfortunately, it is a big challenge for us”.

One of the deaf learners on the interview stated that:

“Since we are learning together with learners without hearing impairment, teachers

need to give special considerations when they teach us. But I don't understand why teachers in the classroom give due attention to learners without hearing impairment. I think they forgot the presence of deaf learners in the classroom. They did not give us as much attention as they give for learners without hearing impairment.”

One teacher interviewee also says:

“I am an English teacher. I have been working in this school for 7 years and teaching deaf learners since the time I was employed. I want to give assistance for deaf learners, but I couldn't give as I intend too so far. The reason is that I don't know how I could support them, for I am not able to use sign language properly though I took sign language training once as I joined this school. I think special needs education professionals should provide us training on how to teach and support deaf learners and sign language skill training once again. During my class, I did not support and teach deaf learners compared to the support I gave for other learners. I faced teaching methodology challenges in the classroom because I didn't know sign language and deaf learners can't follow my lecture.”

Another teacher stated that:

“It is very difficult for teachers to teach deaf learners without having sign language skills. I don't understand why certified sign language teachers cannot be assigned for subjects like Mathematics, Physics, English, etc.; I don't know why sign language training opportunities are not facilitated to school teachers in addition to their specializations. Otherwise, interpreters and note-takers for deaf learners should be recruited who are supposed to have sign language skills even if they are not currently available in the Integrated Primary Schools. The motivation, feeling, confidence, and satisfaction of teachers to teach deaf learners was insufficient in the Integrated Primary Schools due to lack of teachers with sign language proficiency”.

Classroom observation data revealed that teachers use group discussion among learners in classroom. They made small groups consisting of deaf learners and learners without hearing impairment to discuss on certain issues. Since learners without hearing impairment in their class could not communicate using sign language, deaf learners have difficulty in understanding the group discussion.

According to the deaf learner participants' response, the most widely used teaching approach by teachers was oral and written presentation of lessons. Thus, deaf learners believed that they could not equally benefit from the oral and written presentation of lessons as learners without hearing impairment do. They also believed that, oral presentations could not be heard by deaf learners so that deaf learners could not benefit from it like that of learners without hearing impairment. Concerning this, the research reported by Batten, Oakes & Alexander (2013) suggests that learners with hearing loss learn a great deal incidentally by watching others. The teachers may also rely on print, pictures, gestures, and movements to support or give instructions. The teacher should repeat questions and comments from the other learners and allow the use of index cards to communicate with deaf learners. Provisions for written or captioned school announcements should be available. Inclusion of basic sign language training in the classroom curriculum was also suggested (Degnesh, 2016).

4.2.5.4 Lack of Teaching Materials, Resource Rooms and Library Services

Teaching materials are any equipment, devices, objects or apparatuses used by a teacher to teach learners both inside and outside the classrooms. Examples of commonly used educational teaching materials are visual aids, such as whiteboards or chalkboards, charts, maps, flash cards, calendars, bulletin boards, audiovisual devices, overhead projectors, multimedia displays and computers (MoE 2016). Teaching materials and resource rooms are very significant for the successful educational experience of deaf learners (ENAD, 2016). There are five ways in which teaching materials can facilitate learning for deaf learners, including enhancing accessible educational design, building communication bridges, encouraging skills development, facilitating distance learning, and creating learning opportunities for exploration. These five forms of teaching aids ensure that learning experiences are structured to involve deaf learners fully in the process of teaching and learning. Although active learning is necessary for all learners, it is very essential for learners with hearing impairment (Parton, 2014).

According to the American Institutes for Research (2020), to make the teaching-learning process more available to learners with hearing impairment, there should be sufficient teaching materials and resource rooms. These involve translating sign language video, graphics, and pictures, showing grids with words and sign language graphics combination, and embedding questions that elicit strategies for understanding which are organized in the resource rooms.

From the observations and participants' interview transcripts, the Integrated Primary Schools did not have well-organised teaching materials and resource centers for deaf learners. The resource centers were ill-equipped with teaching materials and even with human resources. However, with the absence of well-equipped resource centers, there are pedagogical centers established in the Integrated Primary Schools which were equipped with specific materials like exercise books, pen, pencil and papers. This, however, lacks assistive devices that are vital for deaf learners including lack of sign language professional staff. During the researcher's observation of resource rooms and pedagogical centers, the researcher found that there were no other teaching materials in the resource rooms and pedagogical centers of the Integrated Primary Schools except lesson notes, lesson plans, subject books and even some teachers have used these teaching materials poorly.

Teaching-learning processes in the classrooms depend upon different types of available teaching materials. Teaching materials should provide learners with a friendly school and classroom setting. To increase learners' capacity and interest in their education, teachers should use various types of teaching materials besides textbooks. Currently, there is development in science and technology in the world. These developments in science and technology have also greatly influenced teaching and learning programs (Victoria, Jo-Anne, Therese, Jenni, Natalie, Mae, Ian, James & Robbie, 2016).

Deaf learners benefit from materials and teaching aids such as hearing aids, augmentative devices, audiometers, television, computers, television announcements, sound amplification systems, and interactive white boards (Victoria, Jo-Anne, Therese, Jenni, Natalie, Mae, Ian, James & Robbie, 2016). From the interviews and the classroom observations, the researcher confirmed that the Integrated Primary Schools have no such advanced assistive technological materials and teaching aids. Furthermore, these schools did not use locally available teaching materials such as a globe, maps, charts and pictures. The Integrated Primary Schools lacked advanced assistive technological teaching materials and aids, locally available teaching materials, resources and assistive technologies which are important for educational success of deaf learners.

Regarding teaching material adaptation skills of teachers, principals of the Integrated Primary Schools narrated that:

“Nearly all teachers did not know how to adapt teaching materials which are important to satisfy the individual needs of deaf learners in the classrooms. Teachers who are

teaching deaf learners believed that, adaptation of teaching materials should be the responsibility of SNE teachers. Hence, SNE teachers are using adapted teaching materials, other teachers cannot use adapted teaching materials. Additionally, the shortage of teaching materials in the integrated classrooms has exposed a significant disparity between the needs of deaf learners and what these teachers currently do in integrated classrooms. This condition leads the quality of education uncertain for these deaf learners. Integrated Primary Schools should take steps to address the issue of the scarcity of teaching materials by exerting pressure on the departments of education office to provide them with teaching materials and organizing academic tours to help deaf learners in discovering the natural environment and learn better.”

To enhance the education of deaf learners, resource rooms are vital. These service centers need to be staffed by professionals and have sufficient materials. Resource rooms are classes or rooms where specialized equipment and teaching aids should be available. These resource rooms should have available special equipment, guided by specialised and/or experienced teachers who are teaching children with special needs and attached to the integrated schools and classrooms. Different learners with disabilities may receive a special teaching service or part-time teaching in the resource rooms (MoE, 2016). However, from the interviews with deaf learners, it is clear that schools did not have resource rooms which provided special teaching services or part-time teaching for deaf learners in the Integrated Primary Schools. There were no assigned professionals and enough materials that help deaf learners in the resource rooms. The only professionals who served as counsellors or supporters of deaf learners in the Integrated Primary Schools were SNE teachers who were teaching learners with disabilities from Grade 1- 4.

Inclusive schools must recognize and respond to the diverse needs of their learners by providing different types of services in resource rooms and in pedagogical centers by ensuring quality education to all through appropriate curricula, organizational arrangements, teaching strategies, resource use, and partnership with communities (MoE, 2016). Resource centers are also used as pedagogical center which is equipped with specific materials and assistive devices as well as staffed with professionals to give support to special needs education learners, teachers and neighboring schools. The teacher’s opinion during the interview revealed that, the Integrated Primary Schools have not well-equipped resource rooms but there were resource rooms which has only specific supportive materials such as books, pens, pencils and papers. Additionally, these resource rooms were not prepared for deaf learners but used as pedagogical centers which provide teaching aids for all learners in the Integrated Primary

Schools. Those support materials found in the resource rooms were not adequate and appropriate for the needs of deaf learners. Hence, the Integrated Primary Schools should have more supportive materials in the resource rooms that satisfy the learning need of deaf learners. The school principals also confirmed that there were no enough resource rooms important to ensure the educational needs and inclusion of deaf learners. So far, during observations, the researcher was realized that there were no resource centers in the Integrated Primary Schools with enough support materials and seem almost all were non-functioned. But sometimes teachers receive papers, pens and exercise books from the existed resource centers when obtained.

Like that of resource rooms, library services are very important to enhance the education of deaf learners. Libraries are rooms where different types of teaching aids and teaching materials like reference books are available. The library rooms of schools are overseen by professionals who studied library science and languages, and sometimes graduates of information technology can lead the office. Library services should be available and open for all groups of learners making ready to provide service for large groups of students at the same time. Because of this, libraries have important teaching aids which are helpful for deaf learners and sometimes may provide of special equipment (MoE, 2016).

With regard to library services, teachers and deaf learners reported that the libraries in the Integrated Primary Schools did not render expected services extensively and frequently for deaf learners. The libraries have lack of interpreters to communicate with librarians; they were ill-equipped with references like sign language books, assistive devices and reading rooms. Thus, the libraries were not fully accessible to deaf learners. Furthermore, the finding from principals, and teachers revealed that the integrated schools have substantial problems in providing educational supports and services for deaf learners. Generally, deaf learners faced barriers in obtaining library services; resource room services; and lack of sign language interpreters.

4.2.5.5 Assessment Methodologies Used by Teachers of the Integrated Primary Schools

Assessment is the administration of different types of measurements to evaluate the understanding of learners according to the objectives of the curriculum and sometimes includes standardized educational and psychological measures of behaviour. Assessment methodologies include all the different ways teachers gather information about learner performance in their classrooms. It includes observations, oral questions, paper-and-pencil tests, homework, classwork, research papers, and the like (Akdeniz, 2016). Assessment requires a broad range of

teachers' expertise and skills, such as knowledge of the school and classroom environment, subject matter knowledge and skills, the ability to use different types of measurements skills to use adapted materials and equipment, and an awareness of the unique needs, characteristics, abilities and limitations of learners (Pierangelo & Giuliani, 2018).

Concerning the assessment practiced in the Integrated Primary Schools, as the researcher understood from the deaf learner interviewees, teachers of deaf learners were usually used summative types of assessment implemented in the form of mid-term exams and final exams. Deaf learners believed that since they were visual learners, the written material was clear to them and they liked such assessment methods, but they believed that these written exams should be assessed and evaluated by sign-language professionals before its administration. When deaf learners explained the overall appropriateness of the assessment methodologies of teachers used to evaluate deaf learners, almost all of them explained that there was a problem on what they learned, how they learned and the means of assessment were not appropriate and relevant to their educational needs, and they emphasized the existence of problems related to assessment mechanisms of teachers.

During the interview, all teachers acknowledged that assessment is very important to investigate the learning needs of deaf learners and to know how many deaf learners understood the subject matter. However, they said that most of the time they did not apply different types of assessment methodologies. Instead, they used tests, assignments and final exams only. The reason for this was that there was lack of experience in using other types of assessment methodologies and because of the absence of information in the assessment needs of deaf learners in the Integrated Primary Schools (Nieminen, 2022). They also noted that large numbers of learners in Integrated Primary School classrooms restricted the possibility of using various types of assessment methodologies that could address the needs and achievement of all deaf learners in addition to lacking awareness of evaluating their needs.

One of the teacher respondents said that: *“The method of assessment I usually used include observation, class work, homework, tests, final exams and assignments”*. Furthermore, the Integrated Primary School teachers said that, there were many learners and all of them had different special needs, styles of learning and assessment needs that forced teachers to use different forms of assessment methodologies. For example, since all learners are not the same, they have special needs, learning styles and assessment needs (Nieminen, 2022). There were large number of learners in the classrooms of the Integrated Primary Schools which was the

concern of the researcher. In the integrated classrooms there were 50 students in a class. In such a large class size, teachers faced problems to fulfill individual needs of deaf students. Teaching small number of learners in inclusive classrooms helps the teacher to be more effective in his/her works and instruction (Jampala, 2014).

4.2.5.6 Educational Challenges of Deaf Learners in the Integrated Primary Schools

Education offers ways of reducing drawbacks and eliminating obstacles to greater social inclusion (Zelalem, 2014). Exclusion from education, on the other hand, raises drawbacks and leads to exclusion in society (Alemayehu, 2017). Deaf learners are one of the disadvantaged groups entitled to receive appropriate types of support in the integrated schools. Even Ethiopia has an ETP, the policy lacks clarity in terms of services provided to deaf learners. The special types of support and services for deaf learners in the integrated schools are not mentioned clearly. Because of this, deaf learners encounter a wide range of barriers to learning such as problems with provision of quality education, interaction between deaf learners and teachers, social problems, environmental challenges, and unavailability of facilities and equipment (MoE, 2016). Thus, the main challenges mentioned by deaf learners, teachers and principals were discussed below.

In the Integrated Primary Schools, in order to meet the goals of education, special emphasis must be given to learners with disabilities and for children who are excluded from education (MoE, 2018). From the school and classroom observation of the researcher and interview responses, deaf learners have different challenges in the Integrated Primary Schools. Many of deaf learners' face numbers of educational challenges in integrated classrooms that learners without hearing impairment do not face. Deaf learners expressed that inadequate assistive devices, knowledge gap and low awareness of teachers, lack of teaching materials, lack of professionals like SNE experts, lack of teachers who have sign language skill and sign language interpreters, problems related to communication and instructional strategy, inadequate support, poor teaching method as their major educational challenges in the Integrated Primary Schools. In addition, poor school curriculum, environmental and resource related problems were also mentioned in a way that the educational challenges of deaf learners in the Integrated Primary Schools. In inclusive classrooms, deaf learners require highly specialized equipment and adequate assistive devices, enough teaching materials, better teaching method, sign language interpreters and conducive learning environment to help them learn effectively Al-Shoura & Ahmad (2020).

The deaf participants were also asked to mention the educational challenges that they encountered in the Integrated Primary Schools. They explained three major challenges. The first one was schools' failure to train teachers on sign-language skills which is important for communication; the second was that teachers use oral language when they thought deaf learners and the third was lack of skill of teachers to adapt local teaching aids important to support deaf learners. They said that there was a deficiency among teachers in explaining communications and academic concepts using sign language for deaf learners. Thus, according to them, it hindered the learning of deaf learners and adversely affected their classroom participation and overall academic performance. For these reasons, deaf learners generally lagged behind in classroom participation and in their academic achievement compared to learners without hearing impairment.

Almost all interviewed teachers confirmed that they had some awareness of the education of deaf learners and other disabilities through different media, but they reported that they had neither the training nor a related qualification to take care of deaf learners using sign language. SNE teachers had been trained, but regular teachers in the Integrated Primary Schools did not get any training on the issue of SNE generally and on the education of deaf learners specifically. They confirmed that, the educational attention paid to the deaf learners was not like that of learners without hearing impairment.

For learners with disabilities in general and for learners with hearing impairment in particular, conceptual problems and negative implications of segregated education services need a significant shift in the mode of education provision. Because of this, the segregated education system was geared towards integrated education system Göransson, Bengtsson, Hansson, Klang, Lindqvist & Nilholm (2020). An integrated education system provides the opportunity to deaf learners to have access to education in regular schools. This should encourage learners to go to these schools, parents to send their children to integrated schools and teachers to teach deaf learners. Specifically, in an integrated education system, instructional, social, and functional communication integration and services are expected (Alemayehu, 2016). However, when the researcher investigated what was happening in the education of deaf learners in the Integrated Primary Schools, there were several challenges. The participants explained the problems related to teacher's skill in instruction, in sign language and in adapting and using teaching aids for deaf learners. Deaf learners in Ethiopia have challenges related to accessibility of inclusive schools, inclusive school infrastructure and management; less values of teachers and administrators, absence of encouragement, gaps in the expertise and skills of teachers in sign language, absence of adapted curriculum and teaching materials as well as

lack of appropriate supports and /or services (Alemayehu, 2016).

In the Integrated Primary Schools, low participation of deaf learners is another problem. Concerning the participation of deaf learners in the integrated school classrooms, all interviewed deaf learners responded that they did not participate as learners without hearing impairment did. They believed that they could not equally provide answers for questions raised and they had less participation compared to learners without hearing impairment.

Furthermore, when deaf learners explained their educational challenges that they encountered in the Integrated Primary Schools, they emphasized the existence of communication problems and lower academic achievement of deaf learners as a major challenge. When they explained the educational practices of deaf learners in the Integrated Primary Schools, they claimed that they could not easily communicate with the school community and participate in every activity within and outside the classrooms. Academic achievement occupies a very important place in education; therefore, it is more pressing for the learners to have high academic achievement and is considered as a key criterion to judge one's total potentialities and capabilities. Research shows that deaf learners often lag behind their learners without hearing impairment in academic achievement. Most children who are deaf have normal intellectual capacity and it has been repeatedly demonstrated that their scores on non-verbal intelligence tests are approximately the same as those of the general population (Carlos, 2021).

The researcher interviewed deaf learners concerning their academic achievement. The interview results of deaf learners showed that deaf learners perform lower in their academic performance. Besides, the data collected from teachers' interview revealed that the academic achievement of deaf learners was lower than learners without hearing impairments. One of the main reasons was learners without hearing impairments can directly listen to their teachers and understand the subjects well, but deaf learners need an interpreter of teachers' speech in sessions.

Some other deaf learner respondents expressed that the opportunity of attending in such an integrated school facilitated for some of them remains problematic to some other deaf children to join. Additionally, in the Integrated Primary Schools, sign language interpreters were not available. Each of the deaf learners stated that their academic achievement is lower than learners without hearing impairment. This is because of the barriers they face in learning and teaching process such as, lack of proper support, problems with sign language interpreters and lack of awareness of the Integrated Primary School teachers to support deaf learners. They said that if the Integrated Schools were given proper support and recruited fluent and well-

trained sign language interpreters, they could do well on their exams and equally perform with learners without hearing impairment.

Even when the researcher observed the classrooms of Integrated Primary Schools, it was realized that there were no teachers who have sign language skills and sign language interpreters; besides, enough teaching materials and assistive devices were not provided in the observed classrooms. During classroom observation, the subject teachers did not give more emphasis for deaf learners. Also, they didn't pay attention to the arrangement of the classroom where deaf learners were sitting in horizontal rows which is missing visual access and difficult for them to have discussions with other learners and the teacher as well.

Deaf learners face different types of challenges in Ethiopia and in other countries. These include challenges related to accessibility, discrimination, stigma, negative attitudes, low expectations, lack of organisational support, safety and security (Degnesh, 2016). Also, the challenges of deaf learners can be divided into policy challenges, organisational challenges, environmental challenges, knowledge challenges and attitudinal challenges. The policy-related challenges included that there are no specific policies and strategies which deal with educational provision for deaf learners; the existed gap is essential to be reduced; the enrolment of all learners with hearing impairment needs to be actualised and access to quality education needs so be ensured. The organizational challenges are related to the schools and classroom structures and management. The attitudinal challenges are the beliefs and motivations of teachers and administrators, reasons inside integrated schools to accommodate deaf learners. Knowledge-related challenges for deaf learners include the failure of teachers to speak in sign language, discrepancies between teachers in communication abilities, knowledge and skills in teaching and curriculum adaptation and the unavailability of support resources unique to deaf learners. Because of these challenges, deaf learners are excluded from accessible educational services in the integrated schools (Tamirat, 2020).

Participant teachers and deaf learners reported that deaf learners had little communication with learners without hearing impairment and their teachers because of the lack of sign language; as a result, deaf learners had poor social interaction and communication. Nevertheless, deaf learners had beneficial social interaction with special needs education teachers and other deaf learners in the Integrated Primary Schools. From the interviews, teachers believed that effective social interaction and communication would take place if learners without hearing impairment and teachers could communicate with deaf learners using sign language. It is obvious that deaf learners are fully capable of developing positive social relationships and

communications with learners without hearing impairment and teachers if satisfactory communication methods such as sign language communication are used. The interview results showed that language and communication barriers were the predominant source of poor social relationships of deaf learners in the Integrated Primary Schools.

The development of communication and language skills is important for the academic, social, emotional, linguistic and mental and physical well-being of deaf learners (Tamirat, 2020). Deaf children have the same ability to learn as that of the hearing children. But language and communication barriers should be avoided to provide a socially rich environment which is fully accessible to deaf learners. It is the accountability of the integrated schools to deliver such a welcoming setting for deaf learners which fulfils their language, communication and social relationship interests. All deaf learners have the right to have communication and social relationship with the people without hearing impairment, being able to form and maintain peer relationships and social competence, and to integrate socially and emotionally with the learners without hearing impairment (MoE, 2012).

When the researcher interviewed the deaf learners, they stated that, with the exception of SNE teachers, all staffs of the schools like principals, teachers, librarians, guards and other staffs did not use sign language to communicate with them. Deaf learners explained their needs and problems through sign language, but they received responses through oral language. They all claimed that miss communication was encountered in the school due to communication barriers with the school community. Generally, according to the participants' response, sign-language communication was not used to obtain services from the school.

Regarding the skill of teachers to use Ethiopian sign language, deaf participants indicated that teachers failed to communicate with learners without hearing impairment. This was because learners without hearing impairment and teachers lack knowledge of sign language. Teachers presented their lessons in oral language and spoke orally and were unable to meet the deaf learners' needs. They did not provide appropriate kind of support to deaf learners. Deaf learners were not properly informed when classwork and homework were given. An interviewed deaf learner confirmed that *“teachers didn't provide suitable kind of communication for deaf learners while they teach the whole lesson through oral language.”*

This finding was supported by the researcher's classroom observation and the interviews with teachers of deaf learners and principals. In the instructional process, the teachers and the school community except SNE teachers were unable to communicate with deaf learners. When deaf learners learned in the special unit classes from Grades 1–4, SNE teachers had sign

language skills and were able to well communicate with deaf learners in sign language, but in the integrated classrooms from Grades 5–8, deaf learners were forced to learn with learners without hearing impairment and were taught by teachers who did not have sign-language skills. This hindered their communication, social interaction and educational success. Moreover, according to deaf learners’ interviews, learners without hearing impairment have communication with deaf learners through written form of message, because learners without hearing impairments do not have sign language skill to understand deaf learners. Deaf learners did their educational activities without any appropriate support being given for learners without hearing impairment. Besides, deaf learners did not do their homework properly because some teachers did not worry about their educational needs and achievements. The only way deaf learners learned was by copying written notes from books and on the chalk board. From the researcher interviews with deaf learners, it was clear that deaf learners had better interaction with each other rather than learners without hearing impairment. Even though deaf learners engaged to communicate with learners without hearing impairment, they interacted for the sake of group work in the class. However, most of the deaf learners were not happy to participate in classroom activities because of communication barriers. Furthermore, the deaf learners added that *“deaf learners communication and social interaction and peer acceptance was good with other deaf learners because of their sign-language skills. Deaf learners’ communication and social interaction with learners without hearing impairment was rare and largely took place by means of written communication only”*.

Figure 4.1 below provides a snapshot view of the challenges of deaf learners as identified from the qualitative research.

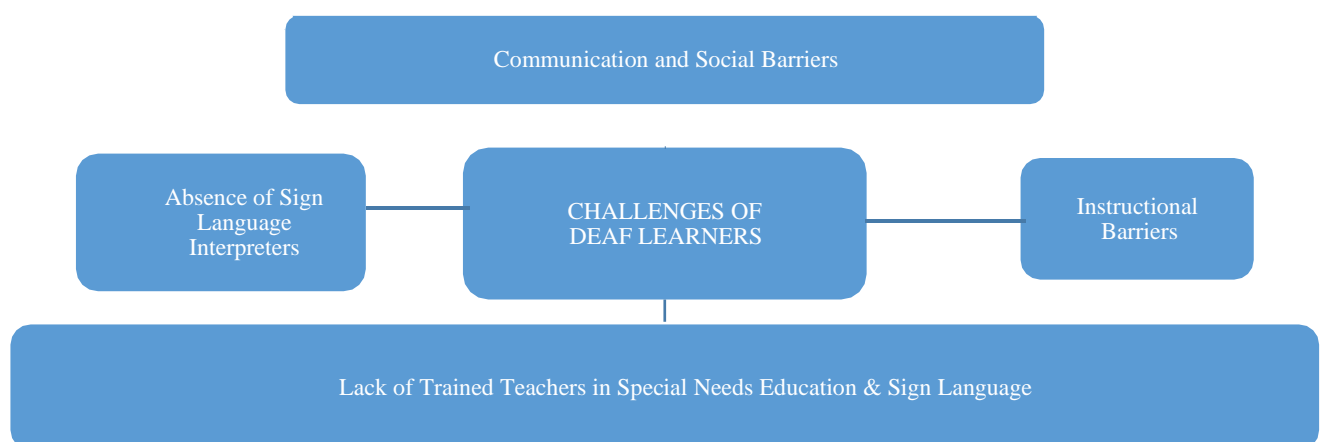


Figure 4.1: Challenges of Deaf Learners

Source: Researcher’s Own

4.2.5.7 Physical Learning Environment of the Integrated Primary Schools

The physical learning environment for deaf learners means the space, infrastructure of schools and classrooms and the facilities that the integrated schools have. The learning environment is also used to define the physical conditions of schools and classrooms, including the facilities within and outside schools and classrooms, since deaf learners' study in a wide range of settings, such as outside school locations and in outdoor environments (Tamirat, 2020). The physical learning environment is a major factor in the presence of a conducive and stimulating learning environment (Belay, et.al, 2015). Conducive learning environment offers a relaxed teaching and learning environment keeping learners centered and involved in the classroom. Learner behavior and social contact can also be affected by the physical learning environment. It is therefore critical that the physical learning environment is well managed to allow learners to study comfortably, actively collect valuable knowledge, gain relevant experience, evaluate their own learning, and provide input in different social contexts on their personal experiences. This beneficial physical learning environment will allow comfortable teaching and learning to take place and can thus benefit to advance the effectiveness of education (Puteh, Che Ahmad, Mohamed Noh, Adnan & Ibrahim, 2015).

According to Puteh et al., (2015:237) the educational setting is where the educational system is functioning in social, psychological and pedagogical settings that can influence learners' accomplishments and attitudes. To encourage learners to gain knowledge and build skills for their future career needs, teaching and learning should take place efficiently. There are several factors that contribute to learning effectiveness, and the learning environment is one of the important factors that need attention. Learning outcomes may be influenced by the learning environment. There is dedicated space for research in the learning environment. A positive educational setting can help increase cognitive abilities and encourage learner interaction, collaboration and assistance, which in turn can promote learners' growth and development (Puteh et al., 2015).

Concerning the physical learning environment of the Integrated Primary Schools, deaf learners appealed that the Integrated Primary School classrooms were not accommodated for deaf learners. This was also evidenced in the school and classroom observations of the researcher. It was evident from the observation that the main gate and exit of the school, school health and physical activity, fence, playground, physical accessibility, neatness of the environment, space, classroom environment, classroom settings and ventilation, chair and table arrangements, resource center, toilet, accessibility of pipe water and refreshment of the Integrated Primary

School were found to be unwelcoming for deaf learners.

Interviewed deaf learners from the Integrated Primary Schools claimed that:

“The arrangements of chairs in the classrooms were not comfortable for seating together in between learners without hearing impairment and deaf learners, and there is poor light to see written lessons on the blackboard and to attend the lesson.”

The researcher witnessed that the classroom arrangements were not done in such a way that learners without hearing impairment and deaf learners could help each other. The seating arrangements did not allow deaf learners and learners without hearing impairment to support each other particularly during the class work and group work. In addition, the seating arrangements did not allow deaf learners to easily focus on the teacher and reduced the amount of visual communication because of the absence of lighting in the classrooms. The Integrated Primary Schools’ teaching and learning environment such as physical accessibility, classroom environment, toilets, main gate and exit of the schools and the seating arrangements did not create a friendly environment to speed up the learning of deaf learners and did not promote their participation in the classroom. There was also noise that the researcher noticed distracting sessions in classrooms.

4.2.5.8 Educational Opportunities of Deaf Learners in the Integrated Primary Schools

Educational opportunities are prospects that provide children with special needs with the same access as learners without disabilities, access to curricula and materials that are exposed to most other learners, access to subject matter content considered by subject matter experts, and access to guidance from a teacher in general education (Rebecca, 2015:11). In inclusive settings, every learner has a fundamental right to education and must be given the opportunity to achieve and maintain on acceptable level of learning and every learner has unique characteristics, interests, abilities and learning needs (MoE, 2016).

Even though there are challenges in implementing and practicing inclusive education in the Integrated Primary Schools, there are also some educational opportunities as well. During interviewing with integrated school principals and teachers, they mentioned the same opinions that the school provides books and school uniform per year for deaf learners. Additionally, it was identified that deaf learners have social opportunity to have good interaction with learners without hearing impairment peers in the integrated school. They play, try to communicate and exchange their experiences as well. Alasim (2018) also noted that most deaf learners are fully

capable of developing positive relationship with learners without hearing impairment peers when satisfactory method of communication can be used.

In the interviews, deaf learners also explained additional educational opportunities. In the integrated educational settings, the opportunity to be revealed to and respond to a wide variety of social experiences is offered to learners with disabilities. Likewise, in these educational settings, deaf learners are attending their education with the learners without hearing impairment which gave them an opportunity to engage in educational, social and communication interactions. Accordingly, deaf learners explained that they were attending their education with learners without hearing impairment in the Integrated Primary Schools.

The data from deaf participants revealed that before the establishment of Integrated Primary Schools, they were forced to stay in their homes. But after the Integrated Primary Schools were opened for deaf learners, they got the chance to interact with learners without hearing impairment within the school compound and in the classrooms. On the other hand, the school principals and teachers reported that deaf learners have financial support and teaching material like books, stationery and clothing from the MoE. Deaf learners receive pocket money of 200 Ethiopian birr per month and they receive a school clothing allowance per year from MoE.

Furthermore, in relation to opportunities of deaf learners, almost all of them claimed that teachers, other learners, administrative staff, and other service providers did not have attitudinal problems, except their deficiency in sign-language skills. As learners with disabilities attend classes together with learners without disabilities in the integrated school settings, there were social interactions. These social interactions have their own benefits. The beneficial interactions can be things like learners without disabilities voluntarily provide direct assistance; learners with disabilities share their skill and knowledge with their friends; and both learners with and without disabilities receive benefits from their relationship like playing a game together. These conditions in turn promote the social relationship skills of all learners (Rebecca, 2015).

Regarding social opportunities for deaf learners in the Integrated Primary Schools, the data obtained from teachers, principals and deaf learners indicated that the opening of integrated schools within the integrated education system would enable deaf learners to have closer social contact with the community without hearing impairment of the school even if there were sign-

language barriers from the community without hearing impairment. This social contact provides an opportunity for the deaf learners and the school community to have interpersonal interaction, to support each other and play together in the school compound. A school principal indicated that *“Integration is one of a means to reduce social exclusion and negative attitudes of the society towards persons with disabilities. Even in situations where the deaf preferred to play with their classmates having no hearing problem.”* Consequently, social attachments of deaf learners with learners without hearing impairment were there and were improved through time according to the participants.

4.2.5.9 Possible Solutions Suggested by Participants to Decrease Challenges of Deaf Learners

Participant teachers, school principals and deaf learners were asked to give possible suggestions on how to enhance the education of deaf learners and how to minimize the educational challenges of them in the Integrated Primary Schools. Each participant of the study suggested different possible solutions for the educational challenges of deaf learners; the following points were raised.

Deaf learner respondents believed that equipping teachers with sign language skills, providing them appropriate trainings on social needs of deaf learners, and letting them have up-to-date teaching styles and approaches to teach the deaf would help much in facilitating smooth teaching-learning environment. And the teachers of deaf learners must be well trained in inclusive teaching strategies. Teachers should encourage deaf learners to participate in different learning activities inside and outside the classrooms.

Teachers of deaf learners suggested that it is very difficult for them to teach all subjects such as Math, English, physics and other subjects by using sign language. They believed that sign language interpreters should be recruited and assigned to translate these and other subjects. In their opinion, the interpreters are supposed to have subject knowledge and each of them should translate only the subject that they studied. Moreover, teachers said that during the lecture, there must be note takers for deaf learners because deaf learners could not have the ability to take notes following their teachers who were teaching and writing fast by using oral language. So, the Integrated Primary Schools managers must focus on the recruitment of sign language interpreters and note takers. On the other hand, teachers of deaf learners suggested that SNE professionals should provide sign language training for regular teachers and provide locally adapted teaching aids to integrated schools. Those things can decrease the educational challenges of deaf learners.

The Integrated Primary Schools does not have sufficient resources to facilitate the learning needs of deaf learners and still there was financial problem. So, the school principals suggested that the government should focus on the provision of sufficient material and financial support. Additionally, they said that, the Ethiopian National Association of the Deaf has to work in collaboration with the Ethiopian Ministry of Education, the Education Bureaus at the regional level, and other educational stakeholders who are concerned to ensure the effective implementation of inclusive education for deaf learners.

Besides, teachers of deaf learners added that many of the Integrated Primary Schools in the study area have not teachers who have sign language skill. So, the school administration should hire well trained and fluent teachers who have sign language skill. The resource rooms of the Integrated Primary Schools should also contain different types of teaching materials important to assist deaf learners. Concerning this, the study reported by Adoyo & Maina (2019) revealed that teachers should use the latest educational materials for instruction when working with children with hearing impairment. More emphasis should be laid on showing practical things to deaf learners so that they can easily understand the lesson. Teachers should make diagrams on the chalkboard for explaining things. If a learner with hearing impairment asks a question, the teacher should remain calm and answer the question slowly and clearly to provide clarity. Learners should be encouraged to express themselves freely in the class. Teachers should try to develop activities that involve all students in class. This helps to keep a healthy and collaborative interaction of deaf learners with them without hearing impairment peers in the classroom.

In addition, principals said that teachers of deaf learners need appropriate and relevant education and training in pre-service and in-service program to provide support for learners with special needs. At least teachers of integrated schools have to be aware of the needs of their learners in the classrooms. Specifically, teachers of deaf learners should have some basic understanding of the philosophy and assumptions in deaf education, sign language, inclusive education policies and practices, the nature of barriers of the learning and participation of deaf learners and the principles underlying different strategies that can be used to address them. Therefore, according to the interviewed principals, in order to achieve these components, the requirements on pre-service and in-service education and training were required to direct and educate teachers in the integrated schools that practice inclusive education by integrating introductory courses on special needs education and sign language as pre-service training and in-service teacher education programmes in all major initial programmes. Further, in-service training in disability specific skills like sign language skills for teachers in special schools, in

special classes, in integrated schools and in inclusive schools should be organized (MoE, 2016).

Generally, most of the participants explained that the integrated school community could communicate with deaf learners through sign language and/or by using sign language interpreters which would create a welcoming school setting which is important for presence of a healthy social development of deaf learners. Participants also mentioned that to increase the sign-language skills of the Integrated Primary Schools community, experts in the area of SNE should design intervention strategies like giving sign-language skills training to teachers and other staff of the Integrated Primary Schools so that deaf learners could have better communication and social interaction. Most of the participants also stated that since the interaction of teachers and deaf learners in the integrated schools was very important for the social development of deaf learners, SNE experts who are teaching deaf learners from Grade 1-4 should open sign-language training centers and Integrated Primary Schools should recruit teachers who are trained in SNE, particularly in sign language.

Moreover, Integrated Primary Schools should work with the concerned bodies to develop and adapt instructional materials for the effective teaching of deaf learners and to have appropriate and enough books prepared in the language of signs. Teachers of deaf learners need to have the necessary instructional skills to help deaf learners.

Almost all participants argued for providing teachers of deaf learners with in-service and off-site instruction and for the other members of the school community to develop sign-language skills. They suggested that teachers who have sign-language skills should be recruited; interpreters should be assigned to the integrated classrooms; resource centers should be equipped with appropriate materials and professional staff; and training for deaf learners which maximizes their social interaction with the school community should be provided.

4.3 CHAPTER SUMMARY

This chapter presented the quantitative and qualitative results of the research. The data was analysed quantitatively and qualitatively and interpreted against the framework of the literature reviewed in Chapter 2. Different quantitative and qualitative themes were found in the results of the study in addition to the background characteristics of the deaf learners and teachers' samples.

Deaf learners, principals and teachers were interviewed and observations were made in the Integrated Primary Schools' compound and in its classrooms. The major contents of the observation and the interview was the communication process of deaf learners with the hearing school community i.e., learners, teachers, principals, and deaf learners' participation in the teaching and learning process, and the teachers' utilization of appropriate resources, assessment methods and instructional strategies employed. And also interviews and observations were carried out with deaf learners, principals and teachers of deaf learners to understand the educational opportunities, educational challenges and educational practice of deaf learners in the Integrated Primary Schools. The qualitative result of the observation is discussed under the instruction of teachers of deaf learners in the Integrated Primary Schools and deaf learners' communication and social interaction in the Integrated Primary Schools. While the qualitative result of the interview was presented under the response obtained from deaf learners, teachers and principals. These includes, participation, social interaction and communication of deaf learners, teachers' use of teaching methodology, teaching materials and assessment methodologies. Additionally, teachers view on the instruction of the integrated school for deaf learners, communication, social interaction and practices of classroom instruction from deaf learners' perspective, physical learning environment of deaf learners, educational opportunities and challenges of deaf learners and possible solutions suggested by participants were stated. Generally, nine major themes were arisen from the qualitative data. The first theme started about the communication and instructional strategy, the second theme concerned on the deaf learners' social interaction, the third theme focused on the teaching methodology of teachers, the fourth theme concentrated on the lack of teaching materials, resource rooms and library services, the fifth theme dedicated on the assessment methodologies used by teachers, the sixth theme dedicated on the educational challenges of deaf learners, the seventh theme offered on the physical learning environment of the integrated primary schools, the eighth theme argued on the deaf learners' educational opportunities and the ninth theme focused on the possible solutions suggested by participants to decrease the educational challenges of deaf learners.

Deaf learners have not satisfactory communication and social relationship with learners without hearing impairment; there was also communication gap between them and the Integrated Primary School community who have not hearing impairment. Deaf learners have the interest to learn with other learners who have the same types of hearing problems than other learners without hearing impairments. Additionally, the result showed that teachers experience in using different types of teaching methodologies in the teaching learning process

was very problematic. The availability of teaching materials, resource rooms and library services were also very limited. The assessment methodologies used by teachers to support deaf learners in the Integrated Primary Schools was not implemented in the right way. And also, teachers of deaf learners have not sign language skills important to teach deaf learners and sign language interpreters were not available. The schools' physical environment was not accessible for deaf learners.

In the Integrated Primary Schools, deaf learners have faced with different types of challenges. The participation in the extra-curricular activities, the communication and the social relationship of deaf learners was very low. In the Integrated Primary Schools, most teachers did not give extra time in the teaching-learning process while they teach deaf learners. Moreover, the support from the administration for teachers to teach deaf learners, support of the school to deaf learners learning, attention of the school to the professional growth of teachers of deaf students, help from teachers to deaf learners to do things for themselves, help from teachers to deaf learners to understand the content and administrators' readiness to create welcoming school environment in the Integrated Primary Schools of deaf learners was very low. The next chapter, Chapter 5, addresses the study's discussion, summary, conclusion and recommendations.

CHAPTER 5

DISCUSSION, SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter presents discussion, summary, conclusions of the study, and recommendations are forwarded on the basis of the key findings of the study relating to the deaf learners' educational practices, opportunities and challenges in the Integrated Primary Schools of Amhara National Regional State. It discusses the results in line with the findings of different scholars used in literature review and focused on the basic research questions and the research stated objectives.

The major themes emerged from the data were communication and instructional strategy, deaf learners' social interaction, teaching methodology of integrated primary school teachers, lack of teaching materials, resource rooms and library services, assessment methodologies used by teachers, educational challenges of deaf learners, physical learning environment of the integrated primary schools, deaf learners' educational opportunities in the integrated primary schools and possible solutions suggested by participants to decrease the educational challenges of deaf learners.

5.2 DISCUSSION

5.2.1 Communication and Instructional Strategy

Communication is the ability of a person to transmit his or her thoughts, feelings, or materials to other people, groups, or organizations in order to spread information where it is needed. In this study, communication is defined as the process by which teachers transmit knowledge, skill and information to their students (Akdeniz, 2016). Instruction is an action taken by teachers to create a stimulating learning environment for learners for the purpose of providing guidance along with the necessary instructional tools and carrying out activities that will facilitate learning and help to develop behavior appropriate for the gains learners are supposed to have (Greenwood, 2013).

In inclusive schools, a variety of skills are needed to teach learners with hearing impairments, one is communication skill. Good communication is seen as a valuable tool for the advancement of deaf learners' teaching and learning, and teachers with good communication often make it simpler for learners and more understandable (Alemayehu, 2026). In managing

education, classroom management, students' engagement and good communication skills are very essential for a teacher. The teacher needs to use communication techniques to teach critical thinking to learners that inspire diverse learners in their learning process (Alamgir, Salahuddin, Syed & Manzoor, 2017).

In the Integrated Primary Schools, like other members of the school community, deaf learners come to communicate with principals, teachers and learners without hearing impairment and other communities in the Integrated Primary Schools, but they encounter problems in communicating with the school community since all school community members, except SNE teachers of special classes, do not use sign language for communication. There was widespread use of oral language in the Integrated Primary Schools. Deaf learners were not able to get appropriate services from teachers, principals, other school administrators, learners without hearing impairment, library and other service providing sections. Tesfaye (2014) suggests that deaf learner support providers must be supported to learn and use complete communication, including sign language. Sign-language communication is certainly an essential component in the integrated education system so that teachers are expected to actively respond to deaf learners in their teaching by using sign-language communication (ENAD, 2018). All members of the school community, in addition to teachers of deaf learners, should also actively participate in the use of sign language communication and in promoting the education of deaf learners in the integrated education system (Degnesh, 2016).

In several ways, communication and education are interconnected and inseparable. If there is a need for communication between the learner and the educator in the teaching and learning process, effective communication is required. Effective communication allows the learner to learn more quickly, improves the teacher-learner relationship, and creates a supportive learning environment atmosphere. However, numerous factors may contribute to inadequate communication between teachers and learners, such as lack of time, lack of resources, and lack of awareness of how to share information. This ineffective communication negatively influences the teacher's style and approach to teaching and impacts learning motivation. This is because communication and pedagogy are actually related to each other (Diloyan, 2017).

According to this study, communication barriers were identified as a challenge for deaf learners in the Integrated Primary Schools. Deaf learners find it challenging to communicate with their peers who do not have hearing impairments, teachers, and other staff members because the Integrated Primary School community is not familiar with sign language. This

prevents deaf learners from communicating with their peers and teachers since they cannot hear what learners, teachers and other school communities without hearing impairment were saying. This result is consistent with Mapunda, Omollo, and Bali (2017), who found that communication between school workers and learners with hearing impairment is inadequate.

According to Tamirat (2020), learning does not take place alone in the classroom; one can also learn by engaging with the people around them and via interactions with many persons outside of the school. In the Integrated Primary Schools, deaf learners were at a disadvantage because they couldn't communicate and receive adequate school assistance; teachers and the rest of the school community members lack certified sign language skill and do not communicate with deaf learners. As a result of this communication barrier, deaf learners were missing out on a lot of information from their peers, teachers and other school members without hearing impairment.

The transition from segregated education system to inclusive education has many advantages for learners with disabilities and learners without disabilities (Zelalem, 2014). The advantages of this transition to inclusive education are that it supports learners with and without disabilities by:

- giving them the opportunity to have access to the local mainstream school;
- enhancing psychological, social, and educational benefits by communicating, studying, playing, and living together with their peers;
- serving children with unknown or undiscovered disabilities who have been identified in the current regular schools by default;
- overcoming attitudinal challenges and cultivating good attitudes through fostering the importance of all children's recognition of differences, mutual understanding, empathy and helpfulness;
- empowering and involving families with children with disabilities as well as the community to engage in promoting the education and general physical, social and intellectual well-being of children with disabilities;
- minimizing the expense incurred by constructing special schools and delivering special educational facilities by using accessible local services and alternative approaches;
- improving the performance of the educational system; and
- curbing the alarming dropout rate of learners with disabilities in early school.

Teachers of deaf learners in inclusive schools must complete specialized training programmes in special needs education/inclusive education and meeting learners with disabilities educational needs based on the standards established by the Ethiopian MoE (MoE, 2016). However, this does not seem to be the case in the Integrated Primary Schools of Amhara Region of the study area. Teaching and learning in the integrated schools and classroom should be based on teachers' skills in communication that include the study of speech and hearing anatomy, audiology, language assessment and development, use of technology, signing, gesture, finger spellings, writing, reading and drawing among other things.

The researcher has noticed in the findings of this research that teachers of deaf learners in the Integrated Primary Schools were not able to use sign language in the teaching-learning process and sign-language interpreters in the same class were not appointed. Hence the deaf learners' educational competence and achievement in the Integrated Primary Schools is questionable as they need to cope with teaching by means of oral language with the absence of sign-language interpreters.

A critical issue in the education of deaf learners is the type of communication used in the classroom, appropriate education programmes, the favorite style of the child's interaction and opportunities for peer interaction. Choosing inadequate language of instruction for deaf learners in an integrated class presents a great challenge to the implementation of integrated education. An inclusive class of deaf learners needs a realistic, impactful, understandable and motivating communication mode for all parties in that class (Tesfaye, 2014). As a result, the lack of different communication skills of teachers will have negative influences on the teaching-learning process of deaf learners in the Integrated Primary Schools.

5.2.2 Social Interaction of Deaf Learners in the Integrated Primary Schools

Social interaction is a dynamic series of social actions between people or groups. Any voluntary or involuntary interpersonal relationship between two or more people inside and/or between groups is referred to as social interaction (Madouni, 2020). Social interaction is the process of reciprocal influence people exercise over one another during social encounters. It is usually referring to in-person interactions where participants are physically present with one another for a predetermined amount of time (Marlyne, Mitja, Katharina, Roger, and Joris, 2022).

Social interaction difficulty is the major challenges that impact interaction between deaf learners and learners without hearing impairment. Deaf learners could not express their views

clearly for learners without hearing impairment who could not sign. During a group discussion, there are always between three to five group members so the teachers could not stay with one group member, he/she goes from one group to the other groups to help them. Because of this, sometimes deaf learners end up giving their contributions to the group as they could not express themselves to learners without hearing impairment. This makes deaf learners mostly excluded from the discussions. When deaf learners ask learners without hearing impairment for academic support, they feel nervous for being not signing. Similarly, the findings by Alasim (2018) indicated that most people with hearing impairment are fully capable of developing positive social interaction with peers without hearing impairment when a satisfactory method of communication can be used. On the other hand, Tamirat (2020) also noted that using language, particularly verbal speech, is the most important tool to facilitate communication and social interaction. Therefore, it is useful to provide sign language classes for learners without hearing impairment in order to reduce communication difficulty and to promote social interaction between deaf learners and learners without hearing impairment.

For all children, including those who are deaf, it is necessary to learn the skills to communicate effectively with others. They may have trouble participating in different social environments if they do not acquire such skills and are less likely to be welcomed by others. Social acceptance is a vital factor that can decide the effectiveness of inclusion in general education classes for learners who are deaf. Promoting children's social development, including effective relationships with peers and adults, is one of the important priorities of education. By that the risk of social alienation, peer relationships lead to the growth of social skills. As significant reasons for embracing inclusive educational practices, deaf learners' social recognition by learners without hearing impairment and facilitation of inter-group communication between the two groups have been mentioned (Asirat, 2013). This study indicated that deaf learners who are placed in integrated schools with learners without hearing impairment getting more negative social situations than learners without hearing impairment. Deaf learners who are integrated with learners without hearing impairment have significantly more personal and social difficulties than learners without hearing impairment in their educational programmes. This study also discovered social exclusion faced by learners with hearing disabilities in the Integrated Primary Schools which was not conducive to the deaf learners' social development.

Due to the commonly used oral language, deaf learners encountered social contact challenges to communicate with learners without hearing impairment, teachers and other members of the

school community in the Integrated Primary Schools. Deaf learners had greater contact with deaf peers than hearing community of the school such as learners, teachers and other members without hearing impairment. The negative social interactions of deaf learners with learners without hearing impairment, teachers and other school community members have also been reported by another research. Tadesse and Dawit (2019) revealed that social interaction between deaf learners and other service providing bodies in schools adversely affected due to the negative attitudes and unrealistic views held by the hearing community towards deaf learners and the lack of substantive interaction between these two communities.

Additionally, deaf learners reported that their participation in the extracurricular activities in the integrated schools were insufficient. If deaf learners are able to participate in extracurricular activities, they may have a healthier relationship with the learners without hearing impairment, develop better social skills and may achieve well in academics. One of the objectives of integrated schools is to encourage the development of social relationships between peoples with disability and peoples without disability. Mutugi (2018) writes that, there is a greater presence of deaf learners in social events with learners without hearing impairment as there is greater interaction between learners with each other. However, in the sampled Integrated Primary Schools in the current study, because of language barriers, learners without hearing impairment and deaf learners have little social interaction. Similarly, in any activity of the Integrated Primary Schools, deaf learners have the interest to play, walk and interact with other deaf learners, but often do not participate. The school communities also do not have a strong social bond with deaf learners. As a result, deaf learners are not integrated socially with learners without hearing impairment.

To minimise the social problems of deaf learners and the hearing community, sign-language training and earlier social contact intervention is mandatory. Batten et al. (2013) reported that learners who had found that learners who had more experience of previous contact with PwDs, particularly learners with deaf or hard-of-hearing had more positive relationships than those who had less social interaction experience. Such attempts might help the Integrated Primary Schools to minimize the social isolation and increase the social interaction of deaf learners.

Inclusion in the context of education is based on the idea that all children should learn together, regardless of differences or disability. Inclusive education begins with the premise that all learners have unique characteristics, interests, abilities and particular learning needs and, further, that learners with special education needs must have equal access to and receive

individual accommodation in the general education system (UN, 2019). Similarly, proponents of inclusion as a placement believe that having deaf and other children with disabilities in daily classrooms would increase their social interaction with those without disabilities. Thus, proponents of inclusion argue that, the stigma and alienation associated with being put in a normal class or school would be broken down by the placement of all learners in the integrated schools. They claim that the daily interaction of deaf learners with their classmates with learners without hearing impairment is established by putting them in the same class. The first step in the growth of social interaction and social acceptance is believed to be teaching all Learners in the same classrooms and these circumstances would also help the social interaction of the deaf learners into integrative schools (MoE, 2018).

Multiple studies have proven that in learning environments, social relationships play a deciding role. Learning is the product of sharing ideas, the success of joint activities, conversations, and a social, cognitive and emotional interaction network. The dynamics of these social experiences are a factor in the development of individual and collective awareness and have a direct impact on learners' academic achievement in education. Learning can be defined as a personal interaction in which various experiences are exchanged, shared, given, and received by learners (Hariyanto, Soetarno, Joko & Gunarhadi, 2019).

Therefore, learning is a predicator of human contact. There is various interaction patterns between learners in learning that are part of learning relationships; if there are more social interactions among learners in schools, there are more individuals who can learn from each other (Haythornthwaite, 2018). In addition to the positive impact of social relationship on teaching and learning, studies have shown that a lack of social relationships among learners has a negative impact on teaching and learning. According to Chukwunyere (2019), teachers in the classroom have recognized the significance of social skills, seeing collaboration, as essential to academic and behavioral performance, self-control and other social abilities. Nevertheless, others have claimed that learners' lack of social skills affects their ability to acquire adequate academic skills that would enable them throughout their education and beyond to have successful educational experience in tertiary education. When the social relationship skills of learners are absent, the learner's interest during the teaching time is reduced; they are unable to understand, and consequently, they are still unable to focus on the topic being taught; they are unable to formulate or follow relevant questions; and they are unable or afraid to ask to ask questions, explain illustrations or engage in presentations out

of fear or out of shame (Chukwunyere, 2019).

5.2.3 Teaching Methodology of Teachers

The teacher's organization and implementation of a variety of instructional strategies and activities to meet predetermined objectives is known as the teaching method (Olayide, 2015). The effectiveness of the learning process and the teacher's competence are measured by the teaching methods used in instruction (Al-Rawi, 2013). The implementation of effective teaching methods can promote effective learning. Teaching methodologies usually emphasize tools or materials that facilitate learning.

Teaching methods include different teaching aids and teachers that help learners facilitate their learning and use of technology (Olayide, 2015). Teaching deaf learners in the integrated classroom is not an easy work. One of the challenges of teachers in the integrated schools is meeting the needs of each deaf learner in the integrated classroom since most of the time teachers did not use standard types of teaching methods for all learners. The teachers were not using different types of teaching methodologies and do not know which teaching methodologies are appropriate in approaching deaf learners. This was evidenced that most teachers of deaf learners were asked oral and written questions and learners were expected to think over it to provide answers. Teachers also used lectures to explain concepts and discuss the ideas they want to clarify for deaf learners. Deaf learners did not actively participate in the classrooms and were not receiving appropriate education like learners without hearing impairment in the Integrated Primary Schools. Problems in the use of instructional approaches and a limited exposure to learners' primary language has led to delayed language development and a limited capacity in constructing lessons or adapting the curriculum which both limits the capacity of deaf learners to understand scientific concepts and their classroom participation (Mpofu & Chimenga, 2013).

The mode of teaching strategies plays an essential role in inclusion making the context of the inclusion of deaf individuals unique. There is a range of inclusive teaching strategies that can assist all Learners to learn, but there are some specific strategies that are useful in teaching a group which includes Learners with hearing impairment. This is particularly important if the learner is using an interpreter, lip-reading, relying on visual clues or using a hearing aid which has a limited range (Kermit, 2019). Teachers may need to repeat to clarify questions asked by learners in the lecture or class before giving a response. There is need to provide written

materials to supplement all lectures, tutorials and laboratory sessions. Teachers should allow learners to make copies of lecture notes available. Flexible use of teaching strategies via electronic media is also particularly helpful for deaf learners who have difficulty accessing information in the usual ways (Alamri, 2017). For deaf learners, new technology and the internet, in particular, can be used to bridge many gaps. Ensure that lists of the subject-specific jargon and technical terms which Learners will need to acquire are made available early in the course (Alanazi, 2020).

In the Integrated Primary Schools, the teaching strategy of teachers was not appropriate to deaf learners. One of the causes of this problem was lack of trainings given for teachers of deaf learners. The recent UN (2019) reports on disability suggested that countries should provide teaching strategy training to teachers and other education specialists to gain knowledge and experience in inclusive education for persons with disabilities. A study conducted by Tadesse and Dawit (2019) concludes that teaching strategies of teachers who are teaching deaf learners are grossly inappropriate and inadequate. They attributed the inadequate knowledge of teachers and their inability to train deaf learners. They suggested that specialized teacher training by tertiary institutions and through in-service workshops is the appropriate avenue to equip teachers with the skills and competencies such as the knowledge of teaching strategies for deaf learners. However, most teachers in the Integrated Primary Schools have not teaching strategy skills which are important to instruct deaf learners. Tadesse and Dawit (2019) agreed with this by saying that teachers of the Integrated Primary Schools who were teaching deaf learners have problems in using different types of teaching strategies.

5.2.4 Lack of Teaching Materials, Resource Rooms and Library Services

The resources used by teachers to convey knowledge to their students about academic subjects and concepts are known as teaching materials. These are viewed as essential for both enhancing the teaching-learning process and ensuring the efficient operation of educational institutions as a whole (Tamirat, 2020). The teaching and learning processes will take place in a regimented manner, when there is availability of appropriate teaching-learning materials, resource rooms and library services (MoE, 2018). Therefore, within the Integrated Primary Schools, it is of utmost significance to bring about changes and improvements in the teaching-learning materials, resource rooms and library services. The main concepts that are taken into account in this part are availability of teaching materials, resource rooms and library services.

Educators of learners with severe and mild types of hearing impairment should be provided with adequate types of educational materials that increase their academic achievement. In the integrated schools, consistent with other studies like that of Tamirat (2020), there are problems related to supplying necessary teaching materials both to teachers and deaf learners. That is teaching aids, resource rooms and materials were not available for teachers and deaf learners. Furthermore, many teachers of deaf learners did not use locally available teaching aids and materials in their classrooms. This is shown in the finding that teachers of deaf learners were not able to use appropriate teaching materials for deaf learners. The teaching materials used in the Integrated Primary Schools were not adequately meeting the educational needs of deaf learners. The lack of teaching aids, materials and resources may hinder deaf learners from having good educational opportunities in the integrated schools.

Alemayehu (2016) said that to ensure the presence of deaf learners and to meet their educational needs, teachers who may not have specialist training need to be changed, and lacks of teaching aids, materials and resources should be solved. This involves offering visual teaching materials, resource rooms, providing white/black boards, handouts, visual aids, writing materials, and locally produced teaching aids. Furthermore, Batten, Oakes, and Alexander (2013) emphasized that deaf learners can depend for information on lip-reading. Yet, when writing on the blackboard, reading from papers kept too close to their ears, or walking back and forth, teachers frequently break eye contact with the learner.

This study affirmed that the education of deaf learners in the Integrated Primary School was most of the time impeded by lack of adequate teaching and learning materials, resource rooms and different services needed such as learning devices. Research carried out by Alemayehu (2016) showed that the biggest challenge for teachers to provide appropriate education for deaf learners was the lack of resources. Furthermore, the research also found out that special support services such as the provision of assistive devices in the Integrated Primary Schools for deaf learners was not adequate. Many participants of this study such as deaf learners and teachers said that teaching materials, resource rooms and library services were not provided. In addition to this, there were also financial factors affecting the education of deaf learners. Inadequate funding by the government is one of the challenges. A study conducted by Asrat (2013) supported this claim and stated that inadequate funding in the Integrated Primary Schools was affecting the effective provision of educational services for learners with disability in Ethiopia.

The UN (2019) report also suggested that in order to provide quality education, countries should increase their financial support for people with special needs. From the evidences obtained from the quantitative and qualitative data, all participants confirmed that, there were lack of teaching aids and shortage of resource rooms. This shows that there was an acute shortage of teaching materials and resource rooms in the Integrated Primary Schools for the deaf. This is a clear manifestation of the inadequacy of the basic teaching materials needed for learners with hearing impairment in the Integrated Primary Schools. For learners with hearing impairment, the unavailability of teaching materials will have grave impact on their academic achievement. As such, the teachers had to use different types of teaching materials in order to increase the academic achievement of deaf learners.

Due to the shortage of teaching materials and resource rooms, deaf learners in the Integrated Primary School admitted their lower academic achievement, and it affects deaf students learning in that they cannot understand what the teacher was saying. This finding is in line with Mutugi's (2018) study which concludes that the biggest challenge in the Integrated Primary School was the lack of teaching materials and resource rooms and to provide appropriate types of educational support for deaf learners using teaching aid resources. The Ministry of Education of Ethiopia (MoE, 2016) also affirmed that access to quality education material is a challenge for learners with special needs education in Ethiopia. Mwangi (2013) also stated that in the Integrated Primary Schools, special needs education equipment and resource rooms in Ethiopia is expensive and mostly unavailable to learners with hearing impairment. This is because government of Ethiopia and the learning institutions of deaf learners could not afford to provide for all learners with disabilities. Similarly, Tadesse and Dawit (2019) investigated the challenges deaf learners are facing and found that learning and teaching materials for deaf learners in the Integrated Primary Schools of Ethiopia were inadequate.

The findings of the study confirmed that all of the teachers did not know how to use sign language and many of them are not well trained about inclusive teaching approach. They also provide no attention to deaf students in class; besides, lecture notes, handouts, and other course materials were provided only to students with no disability. What is more, no extra time was provided for classroom exams. The study also indicated that deaf learners have not note takers during lectures. Research reports of Belay, et al. (2015) indicated that regular teachers were not well-trained ones for inclusive education of learners with hearing loss. The teachers had little training in dealing with individual differences and specific instructional processes developed for learners with hearing impairment.

The roles and responsibilities of the Integrated Primary School teachers were never clearly defined in this process. On the other hand, Alemayehu (2016, p.96) stated that many deaf learners in Ethiopia are often uncomfortable with their teachers for their lack of skill in using teaching materials. The researcher believed that the low academic achievements of deaf learners was resulted from the teacher's poor competence in using the available teaching materials properly and lack of teaching materials and resource rooms. It is, of course, confirmed that there is no any teaching aid material available in class. And the Integrated Primary School did not have any teaching – learning assistance devices to help deaf learners learn effectively. Except textbooks, pens, pencils and papers there were no any extra teaching materials that teachers used in order to help deaf learners. And the classroom structures were horizontal rows which are uncomfortable for deaf learners to discussion with other learners and the instructor at the same time. This kind of classroom structures can lack visual access and understanding of deaf space greatly contributes to improve the outcome.

Concerning this, the study reported by Alemayehu (2016) suggests that learners with hearing loss learn a great deal incidentally by watching others. The teacher may also rely on print, pictures, gestures, and movements to support or give instructions. They also suggested the arrangement of the classroom so that learners with hearing loss can see facial expressions, read lips, and assess body language of the educator and other learners and provide preferential seating. The teacher should repeat questions and comments from the other learners and allow the use of index cards to communicate. Provisions for written or captioned school announcements should be available.

5.2.5 Assessment Methodologies Used by Teachers

In this study, assessment was used to define test adaptation made for deaf learners in inclusive schools. Test adaptations are modifications to evaluate materials or procedures that reduce barriers to entry without modifying what the test measures. Test accommodations are an essential aspect of providing deaf learners with test equity and access (Tesfaye, 2014). For each learner, accommodations are special since every person with hearing impairment has a different background in language, communication, and culture and may also have additional disabilities (Adamu, 2014). Both in schools and in the workforce, testing is a common activity. Access to learning environments is particularly relevant as deaf learners are more fully included in a wide variety of educational contexts. Assessment often involves significant importance. Before enrolment, most technical schools, community educational institutions

need admission or placement examinations. In addition, some professions require a license or certification that involves passing a test. (National Deaf Center on Postsecondary Outcomes, 2019).

According to the National Deaf Center on Postsecondary Outcomes (2019), learners with hearing impairment tests designed to assess their academic success are not always available. Deaf test takers, for instance, will take more time to analyze and manage the assessment tasks.

In the Integrated Primary Schools, for assessment purposes and to check learners' understanding of the lesson, most of the time, teachers of deaf learners used tests, assignment and final exams for which the lesson were presented and practiced through oral language without sign-language interpreters. Furthermore, when the teacher asked oral questions about the lesson, whether deaf learners are clear about the lesson or not, the response of learners without hearing impairment is generally "yes". As a result, the teacher often passes on to the next lesson without considering deaf learners. Tamirat (2020) pointed out that there is problem with believing that one language is acceptable to all learners in integrated classrooms.

To understand the exam tasks, deaf learner readers can need to reread directions and objects. Deaf learners whose primary language, especially in inclusive schools, is sign language needs readers and sign language translators while working through challenging tasks. Deaf learners do not often have equal access to the kind of knowledge of the world that learners use to understand the meaning of objects being tested. Test items often use vocabulary in ways that are separate from what learners encounter in home and school environments. Test response options, such as multiple choices, choose all relevant options, and for example, true or false statements are unique to testing. Deaf learners can need extra time, like all learners, to practice and familiarize themselves with the particular language constructs used in many test formats.

For assessment, accommodations are an essential factor even though test may not be structured in a way that deaf learners may demonstrate their skills and abilities. Test accommodations are unique accommodations that are intended to eliminate obstacles in testing that do not adequately assess the deaf individual's expertise and skills. For instance, deaf people may be supported with edited directions, interpretation of sign-language, and also additional reading time and interpreting the text in a test that involves voiced instructions. The needs and interests of learners with hearing impairments should be based on test accommodation. Test accommodations should be comparable to accommodations used during teaching in the

classroom. Before the test day, deaf learners may need to prepare with accommodation for assessment; teachers must ensure that the necessary accommodation does not conflict with what is being assessed; deaf people should be trained and encouraged to recognise and justify their accommodation needs; deaf test-takers should be given opportunities to demonstrate how they comprehend the content of accommodated exams and the content of exams without accommodations in order to deliver clearer indication for accommodation choices; and professional interpreters with expertise dealing with education, research, and the particular field of study should be recruited and trained (National Deaf Center on Postsecondary Outcomes, 2019).

According to National Deaf Center on Postsecondary Outcomes (2019), for deaf learners, there are multiple kinds of test accommodation. The first one is hearing aid devices that allow the listener to tune directly into a speaker's voice (e.g., hearing aid, cochlear implant, FM system). For any directions given orally, this is especially relevant. The second is captioned media that include audio content on videos, audio recordings, and more with text representation. This is important for activities in which learners need to use media knowledge. The third is extended time, which is an accommodation for experiments of time limits as a rule. Extended time is a typical accommodation that is offered for deaf learners who need to read test items, watch sign-language videos and other information important to increase their knowledge and skill. The fourth is glossaries or dictionaries that help explain the importance of terms in test items. A dictionary offers general word meanings, and a glossary provides meaning for the test with definitions and examples. Using a glossary or dictionary can help some deaf learners to understand English words or phrases that do not refer to what is being determined (e.g., it would not be appropriate to use a dictionary or glossary when testing English vocabulary). Personal administration is the fifth form of test accommodation that allows learners to take a test in a diversified environment compared to several other learners.

This accommodation can eliminate disruptions, enable learners who want to go at their own speed, and can be helpful when learners need to take breaks or other scheduling-related accommodation. The sixth is frequent breaks that can include stopping or getting longer breaks in parts between test administrations. Since testing can be exhausting for many learners, but especially exhausting for learners taking a test over a longer period of time, frequent breaks can help provide the rest needed to overcome exhaustion in an evolving language, or through visual modalities. The seventh type of accommodation is that some or more of the exam can be converted into sign language by sign-language interpreters. Many standardized assessment

translations are distributed as videos embedded in the format of online distribution. A sign-language interpretation aims at maintaining the essence of test questions while still following the laws of the sign-language. Scribes are the eighth mode of test accommodation for learners who can talk or sign their answers to test questions they record or write answers to. For instance, when a learner has mobility difficulties, this accommodation might be required and speech- to-text software is not an effective tool.

If most learners with hearing impairments are to be accommodated in the inclusive classroom settings, special education curriculum must be modified and special teachers knowing sign language must be appointed to inclusive schools. The tasks of special teachers knowing sign language, among others, include giving extra support for deaf learners who require additional sign-language skills, consulting teachers in general education, running pull-out services for deaf learners in need that allow smaller teacher-deaf learner ratios and flexibility in text selection, selecting curriculum goals and timing of instruction, joining teachers in classrooms to provide lesson support, coordinating programs for professional development such as Sign language skills training deaf education for school administrators and teachers, collaborating with parents of deaf learners and tracking and assessing the inclusive settings of the deaf education program (Tadesse, 2019).

5.2.6 Educational Challenges of Deaf Learners

In previous years, large number of learners with disabilities was left without access to education (UN, 2019). In this research, challenges refer to the difficulties that learners with disabilities faced in the teaching learning process and the inaccessible educational services provided (Adamu, 2014). When inclusive schools were opened, however, a significant number of children with special needs began engaging in inclusive settings in their education. Studies indicate that inclusion not only has beneficial effects for learners with disabilities, but also for learners without disabilities. Inclusive schools and classrooms provide learners with disabilities access to the same learning environment like that of with no disabilities, access to social relationships, access to curriculum and textbooks, access to content on the subject, and access to guidance from teachers in general education whose training and expertise are very different from those in special education. Learners with disabilities are provided the opportunity to have social contact with their schoolmates having no disabilities in inclusive environments. When learners without disabilities learn together with learners with disabilities in inclusive settings, the integration positively affects the attitudes of learners without disabilities.

Teaching deaf and hearing children together in inclusive schools is believed to give deaf learners equal educational access and opportunities for learning. Deaf learners can need to use sign language as a form of communication and maximize their social interactions as learners with deafness and hard-of-learners without hearing impairment learn along with learners without hearing impairment in inclusive schools (Zelalem, 2014). In addition, in recent years there have been greater benefits for deaf learners including positive attitudes of teachers, community involvement, shared school facilities, curriculum flexibility and responsiveness of school management to the educational needs of deaf learners (Yiey, 2018).

Children with hearing impairments experience different challenges when attending inclusive schools unless they receive proper help and support. There are different challenges in inclusive schools associated with the academic achievement of learners with hearing impairments. According to the MoE (2012), there are many challenges that hinder progress of deaf learners in inclusive schools. These include poor communication between the teacher and the deaf learner, negative attitude of teachers, parents and other stakeholders, unfriendly learning environment and school related factors, delayed identification and intervention, lack of commitment to implement inclusive education strategy, poor community involvement, poor inclusive school management, curriculum barriers, poor educational approaches and evaluation, insufficient/lack of resources, discriminative cultural factors, political and economic factors.

This study revealed that teachers support in the Integrated Primary Schools does not fulfil the educational needs of deaf learners and could not contribute to their academic achievement. This is evidenced because the support given to deaf learners in the Integrated Primary Schools were not enough and lacks quality service significant to increase their academic achievement. Compared to learners without hearing impairment, the participation of learners with hearing impairment was found to be minimal; that is, deaf learners were lagging behind in classroom participation as well as overall educational achievement compared to the learners without hearing impairment. The pace of teaching and learning process in the integrated classrooms was observed to be too fast for deaf learners. Kodiango & Syomwene (2016) reported that deaf children in inclusive settings experienced different types of challenges. The challenges included the rapid pace at which educational activities were addressed in the classroom, sudden and rapid turn-taking in the discussions, rapid shifts in topics or subjects of conversation, and the large number of speakers participating in a group discussion. These can create differences in communication which may contribute to deaf learners not learning from

the debate. Thus, the fast pace of the learning carried out in the classroom prevents deaf learners from competing equally with their learners without hearing impairment.

There is empirical evidence that shows educational challenges of deaf learners in the Integrated Primary Schools when their teachers do not have pre-service and in-service training on SNE and sign language. For example, Gudyanga et al. (2014) revealed that there were various problems encountered by deaf learners in integrated educational settings. The finding was that most teachers in the integrated classes lacked the necessary experience to teach deaf learners due to lack of qualifications in SNE and sign language. The study recommended that teachers of deaf learners in the Integrated Primary Schools should receive in-service training on how to provide educational services for deaf learners and should have sign-language skills.

Despite the above-mentioned educational challenges of deaf learners, teachers' educational backgrounds are often inadequate to satisfy the academic needs of learners who are deaf in the Integrated Primary Schools. Most of the teachers were diploma holders, and they typically have no qualifications or training related to SNE. These conditions have a negative effect on the academic performance and can be described as one of the educational challenges of deaf learners in the Integrated Primary Schools. The Ethiopian MoE (2013) proposed that teachers should get in-service training in order to effectively integrate deaf learners in to the hearing community of the school.

According to Yiey (2018), the challenges include inappropriate use of instructional methodology, scarcity of resources for improving learning progress of learners with hearing impairments, improper use of instructional terminology and strategies, inaccessibility of the inclusive school environment, and the negative perception of parents and peers. Compared to the so-called "normal learners without hearing impairment ", deaf learners, including learners with mild hearing impairment, are disadvantaged academically. There are psychological, emotional and learning challenges in the long term for untreated deaf learners and learners with mild hearing impairment in inclusive schools. In general, children with hearing disabilities have a lower grade point average than their listening peers (Yiey, 2018).

Shortage of teachers who have sign language skill was another challenge of deaf Learners in the Integrated Primary Schools. The study found that all teachers of deaf Learners were employed by the school to teach learners with hearing impairment. Mpofu and Shumba (2014) investigated the challenges faced by deaf learners in Ethiopia and conclude that inadequate teachers who have skills of sign language were one of the challenges affecting deaf learners'

education in the Integrated Primary Schools. This research finding agrees with this study that most Integrated Primary Schools lack sign language trained teachers. They further stated that in-service training programs and pre-service early teacher preparation are limited because there is no desire on the part of administrators to train Integrated Primary School teachers.

The United Nations (2019) report lend credence to this study by stating that most disable schools in Ethiopia and other African countries lacks trained and adequate number of teachers. The Ministry of Education of Ethiopia (2018) affirmed that there is a shortage of trained teachers across Integrated Primary Schools in Ethiopia. This affects deaf learners' academic achievement. Asrat's (2013) research report supported the findings of this study by stating that institutional barriers affect learners with disabilities academic performance in Ethiopia. The unavailability of teachers who have sign language skill at the Integrated Primary Schools for deaf learners was a big challenge.

On the other hand, from the participants of the study results confirmed that deaf learner's academic achievement was difference from learners without hearing impairment. This was because of the challenges they face in teaching and learning process; the challenges include lack of support and attention of the teachers, lack of teaching materials and lack of getting qualified sign language interpreters. The findings also confirmed that if deaf learners had support and attention from the teachers, well sign language trained and fluent interpreters and others that required for their learning need, they could perform well in their exams like their peers having no disability. In the researcher's opinion, as reported by Asrat (2013), there could be many reasons why these barriers exist, such as lack of support, lack of awareness of the modification and accommodation needs of these deaf learners and lack of financial and human resources. In line with this, researchers suggest that deaf learners require special attention or additional instructional support in order to overcome the academic challenges of deaf learners which is a major element in most integrated schools (MoE, 2018).

The study also revealed that there were no teachers in the Integrated Primary Schools who knew sign language and were teaching deaf learners in grades 5-8. If teachers were able to communicate in sign language with deaf learners, deaf learners would prefer to have the professional abilities and knowledge needed for the specific interpreting circumstance. Many deaf learners agreed that their teachers did not know how to use sign language and that they had no sign language interpretation experience with the subjects they were assigned to teach. Similarly, a deaf learner's teachers stated that teachers find it difficult to interpret many courses,

including Math, English, Physics, and other disciplines. It's incredible that no interpreters were assigned to translate subjects.

In the same vein, Eyasu's (2013) research report indicated that there is a problem of getting qualified sign language interpreters who are familiar with the ethics and conduct of behavior in Sign language interpreting during the learning and teaching process. Another researcher also mentioned that, there was no sign language interpreters recruited in the Integrated Primary School classrooms; as a result, deaf learners fall academically far behind their peers without hearing impairment (Tamirat, 2020). In this case, the researcher considered that they would be successful if teachers of deaf learners and all the school community have sign language skill. Additionally, it would be a great opportunity if the Integrated Primary Schools implement Sign language training as a medium of teaching and learning in the classrooms.

For the inclusion of deaf learners in daily life, sign language is of major significance. In the deaf community, one of the most significant positions is the interpreter of sign language. The interpreter's job is to solve deaf learners' communication problems. Sign-language interpreters constitute the “voice” of people with hearing impairments, for whom sign language is their major language. A sign-language interpreter assists deaf people in seminars, lectures and other official affairs. In addition, a sign-language interpreter is a trained professional who acts as an intermediary in the classroom between a teacher and deaf learners or between deaf learners and other members of society who are hearing. In several ways, a sign-language interpreter functions as a bond between deaf learners and their listening counterparts. As a consequence of the extent of their hearing loss, most deaf learners do not benefit much from oral communication. The sign-language interpreter therefore helps to bridge the communication gap by mediating between deaf people and hearing people. In some situations, the sign-language interpreter role complements the deaf learners' use of assistive technology devices in the inclusive educational setting (Ewa, 2016).

There are two kinds of interpreters for sign-language. These are sign-language oral interpreters and sign-language interpreters of cued voice. The oral sign-language interpreter speaks to the deaf learners when signing using facial and other bodily gestures. On the other side, the cued speech sign-language translator mouths the words to the deaf learners and uses hand signals (Ewa, 2016). Regarding the role of the sign-language interpreter, Alemayehu (2016) summarized the sign-language interpreter issues in assisting deaf learners to participate in inclusive classroom as follows:

- The sign-language interpreter should be in the line of vision of the learners because the eyes of deaf people come from all communications.
- It is necessary for the interpreter to sit or stand near the center of attention in order for deaf individuals to observe the event's action. Speakers, media, and interpreters should be situated in a single line of sight.
- If the deaf learners interact through sign language, the interpreter has to express what the learner has already said and what the learner has voice.

If the teacher speaks too quickly during class, if someone speaks audibly, or if multiple learners speak at once, the interpreter will not be able to provide the learner with a clear interpretation. Appropriate credentials are a significant predictor of an interpreter's qualifications in the area of sign language interpretation, as in other careers. Certified translators of sign-language who successfully pass national tests and graduates of colleges and universities in the fields of sign language, deaf education, inclusive education and SNE could provide sign-language interpretation services. The tests evaluate abilities in vocabulary, comprehension and communication as well as knowledge, judgment and decision-making skills on legal, cultural and professional issues.

5.2.7 Physical Learning Environment of the Integrated Primary School

The physical learning environment includes spaces, infrastructure of schools and classrooms and the facilities that the Integrated Primary Schools have for deaf Learners. The physical learning environment of the Integrated Primary Schools that learners with hearing impairments and without impairment learnt was also a major challenge faced by the deaf learners. The absence of conducive learning environment for learners with disabilities in Ethiopia is common (Zelalem, 2014). Thus, the challenges related to the physical learning environment of the Integrated Primary Schools caused deaf learners not to effectively concentrate on their studies. This unconducive physical learning environment affects the educational, moral and emotional aspects of deaf learners in the Integrated School and that in turn affects their ability to concentrate in class (Puteh, Che Ahmad, Mohamed Noh, Adnan & Ibrahim, 2015). Studies also affirmed that unconducive physical learning environment of schools of learners with special needs hinder their educational progress and social wellbeing (Mapunda, Omollo & Bali, 2017). The unconducive physical learning environment of the Integrated Primary Schools have a negative impact on deaf learning because they felt they are not considered important in the school community. In this case, they lacked support from the school community hence their

academic achievement becomes lower. A study by Mpofu & Chimhenga (2013) examines the consequence of uncondusive physical learning environment on academic performance of learners with disability in Southeaster New Jersey. The author found that conducive physical learning environment of the Integrated Primary Schools is less for deaf learners and has impact on their academic performance in some ways. UNICEF (2013) opines that in the learning institutions, learners with disabilities contend with diverse forms of environmental exclusions. In line with this evidence, this study confirmed that, deaf learners in the Integrated Primary School were mostly physically unfavorable because of the absence of advantageous spaces, classroom and school infrastructures and learning facilities such as the problems related to physical accessibility of the main gate and exit of the school, classroom environments, deaf learner seating arrangements, chair and table arrangements, water supply, toilet, refreshment, fence and playground areas and neatness and ventilation of classrooms. That is, the result of the present study reveals unfavorable physical learning environment is found to be one of the major drawbacks for the success of deaf learners in Integrated Schools.

5.2.8 Opportunities Provided for the Deaf Learners

In the educational history of people with disabilities, students with disabilities were separated from their families, their environments of natural birth, and their social networks (WHO, 2018). This separation of learners with disabilities from learners without disabilities has many disadvantages. Thus, learners with and without disabilities do not have the opportunity to learn in the same local school settings which has a negative impact on the psychological wellbeing and social interaction of learners with disabilities. Learners do not have access to shared knowledge, skills, and resources when learners with disabilities learn in special classes and in segregated settings. Furthermore, learners with disabilities face attitudinal problems from the community and foster negative attitudes towards diversity (Zelalem, 2014). The presence of integrated schools for learners with disabilities and the absence of the above-mentioned challenges in recent years can be considered as the opportunities that learners with disabilities have (MoE, 2016).

Inclusive Education promotes equality, access, opportunity and rights in education and care for children and learners with disabilities, and it helps minimize prejudice against children and learners with disabilities where they are viewed less equally than their peers. The characteristics of integration include:

- developing the attitudes, skills, and knowledge of children and encouraging them to make connections through the curriculum;

- inclusion of activities that provide a variety of skills;
- inclusion of events that are both initiated and guided by teachers and initiated and directed by children;
- the introduction of various teaching approaches, such as full class, small group and individual teaching;
- the development of critical and innovative thought opportunities;
- teacher assessment, peer assessment, and self-assessment; and
- opportunities as a meaningful whole to experience learning (Belay, et. al., 2015). There seems to be substantial consensus that successful inclusive schools facilitate learner achievement and value post-school outcomes when they set high learning standards that
- are associated with a specific and concentrated mission;
- establish good instructional leadership with regular learner progress monitoring;
- promoting the ideals of diversity, recognition, and belonging;
- ensuring the provision of formal and natural assistance in the sense of ordinary education;
- providing services and support in neighborhood schools in age-appropriate classrooms;
- ensure access to the general curriculum while meeting the individualized needs of each learner; and
- providing a school-wide system of support to satisfy the needs of all learners (Paul, 2018).

Findings from the observation, the interview and the questionnaire indicated that deaf learners have got socialization opportunity with their peers without hearing impairment in the Integrated Primary Schools. They play, try to communication and exchange their experiences as well. Supporting this idea, Tamirat (2020) writes that when learners with hearing loss become part of a general education classroom, they are more likely to become socially accepted by their peers. The more learners with hearing loss have contact with their peers without hearing impairment the greater the chance the learners with hearing loss will learn tolerance and have a greater acceptance of others' differences. On the other hand, the findings from the teachers of deaf learners also revealed that teachers were showing the interest to help deaf learners to learn effectively and getting awareness about deaf learners needs and how to teach them as well even if this was insufficient for the learning needs of deaf learners. The awareness and interest of teachers to help deaf learners was a great opportunity for deaf learners. Therefore, the Integrated Primary Schools management bodies should focus on the integration of deaf learners with learners without hearing impairment. As argued by MoE

(2016), teachers should be able to understand the importance of the integration of learners with disabilities and learners without disabilities in the inclusive education settings which leads them to embrace and support all learners with disabilities in the integrated schools. Learners with disabilities have a fundamental right to education and must be given the opportunity to achieve and maintain on acceptable level of learning and every child has unique characteristics, interests, abilities and learning needs.

The primary purpose of SNE, according to the National Council for Special Education (2014), is to provide help in comprehensive environments for children with disabilities or to make special educational arrangements for them. All children including children with disabilities, such as hearing impairments, have the right to get support and services at all educational levels from pre-primary school levels to higher educational institutions (MoE, 2016). Support for children with special needs can be provided at special schools, in special classes attached to ordinary schools and in integrated environments in mainstream classes. A child with special educational needs should be accepted and taught in an inclusive environment with children who do not have those needs. Inclusive education is a means of adapting the family, school and the broader society to accommodate all individuals with special needs regardless of their physical, intellectual, social, emotional, linguistic difficulties. Assistance for deaf learners should be about allowing their mental, psychological, social, emotional and physical capacities to live complete and independent lives in accordance with their abilities and disabilities so that they can contribute to their communities, cooperate with others and continue to learn throughout their lives. Educating deaf learners in inclusive environments is about helping them grow spiritually, morally, cognitively, mentally, imaginatively, esthetically, socially and physically in all facets of their lives (Eyasu, 20130).

According to Lorman (2017), inclusive education has seven pillars of support for learners with disabilities. These are the development of positive attitudes, supportive policy and leadership, teaching and learning processes for schools and classrooms, flexible curriculum and pedagogy, participation of the community, constructive reflection, and appropriate training and services. There are a lot of learners with disabilities who have no access to education. That means they are not given the opportunity to become motivated and serve their communities as individuals. In terms of educational opportunities and achievement, the lack of funding in comprehensive schools makes children with disabilities among the most disadvantaged (WHO, 2018).

In order to resolve the education of deaf learners in particular and learners with disabilities in

general, the transition from segregated education to inclusive education is an essential and reasonable choice (Zelalem, 2014). Physical environments, social environments, and attitudinal environments can either limit or promote involvement and inclusion for individuals with disabilities. An accessible environment has benefits for a wider range of people, but it is especially important for people with disabilities. The UNCRPD underlines the value of initiatives aimed at enhancing access to various environmental sectors including buildings and highways, transport, information and communication. These domains are interconnected, meaning that if the others remain unavailable, persons with disabilities would not be able to completely benefit from changes in one domain.

All children with disability generally and children with hearing impairments particularly should have access to a barrier-free environment that increases their participation in inclusive schools' activities (MoE, 2015). According to WHO (2015), a barrier-free environment means identifying and removing environmental barriers and creating an environment conducive to deaf learners which maximizes their interaction with hearing people regardless of cultural or ability differences. Inclusive schools which have environmental access and accommodation for deaf learners should teach using learner-centered pedagogy capable of meeting their needs. To lead to the success of inclusive schools, improvements are required in the curriculum, facilities, school organization, pedagogy, evaluation, staffing, school culture and extracurricular activities.

The classroom setting itself can also assess the progress of the learning ability of a deaf learner. A changed classroom is necessary for learners with hearing loss, which should include well-designed acoustics, little distractive noise and adequate visual lighting. Each deaf learner, as well as the teacher, should have a clear view of all visuals. Lack of physical facilities in inclusive settings interferes with the learning process of deaf learners. Inclusive school facilities in inclusive settings have an importance in relation to quality education. Disparities in education services are used to account for differences in the success of learners with special needs. School infrastructures include classrooms, conference rooms, auditoriums, administrative blocks, libraries, laboratories, workshops, playgrounds, assembly halls, and special rooms such as hospitals, staff quarters, hostels for learners, kitchens, cafeterias, and bathrooms, among others. When there is ample quantity and consistency of physical resources, learning experiences are fruitful; and poor academic outcomes can be affected by unattractive school buildings, cramped classrooms, lack of playground availability and areas that have no artistic beauty. Educational programs can be successfully implemented when there are suitable

and sufficient resources for teaching and learning (Okongo, Ngao, Rop & Wesonga, 2015).

Physical accessibility has a huge impact on whether or not deaf learners can engage completely in the school community. The atmosphere of inclusive schools and classrooms may have a huge effect on the general education of deaf and hard-of-learners without hearing impairment. Accessible school environments make it possible for deaf learners to use all aspects of the inclusive school community, such as buildings including classrooms, bathrooms, cafeterias and media centers, and allow them access to rooms or spaces on the school grounds. These conducive inclusive school environments can optimally benefit deaf learners by breaking down barriers of sign language. Environmentally accessible inclusive settings are also important to maximize the social interaction of deaf learners with learners without hearing impairment, enhance intrapersonal and interpersonal social skills which in later years may optimize their vocational and social opportunities. On the other hand, if the inclusive school setting is not advantageous to deaf learners, the inclusive school and classroom environments pose a major challenge as well as a danger to their education, language learning and social growth and lead many deaf children to drop out of school (Zelalem, 2014).

5.3 SUMMARY

The study focused on the assessment of the education of deaf learners in the Integrated Primary Schools which were the practices, opportunities and challenges. The chapters of the thesis are summarised as follows.

Chapter 1 presented the rationale for the study by referring to the background that motivated the study. Integrated schools currently admit and teach deaf learners with learners without hearing impairment together regardless of their differences. Such educational environment being held in Amhara National Regional State has not been investigated. Deaf learners in Integrated Primary Schools face different challenges that affect their academic achievement, social relationships and communication. The study investigated the instructions, the teaching methods, assessment methods, teaching aids, resources used by teachers and the situation of the social relationship and communication among staff of the Integrated Primary Schools. The aim of the study was to examine the educational practices, opportunities and challenges of deaf learners in Integrated Primary Schools of Amhara National Regional State.

In order to achieve the aims of the study and address gaps observed in the Integrated Primary

Schools, the following basic research questions were framed. With the first research question, the researcher wanted to gather data on the practices that Integrated Primary Schools use when teaching deaf learners. The second research question paid attention to the identification of available opportunities for deaf learners in the Integrated Primary Schools. The third question was about the challenges deaf learners face in the Integrated Primary Schools while the fourth and the last questions sought to solicit answers or suggestions that would help to minimize the challenges and maximize practices and opportunities of deaf learners in the Integrated Primary Schools of Amhara National Regional State. The theoretical framework was also addressed in this chapter. The theoretical framework of this study was the social model of disability. The study used the social model of disability to frame the concept of the practices of Integrated Primary Schools in teaching deaf learners but also included practices related to deaf learners' social interaction with the hearing community, instructions and the communication of learners with hearing impairment in the staffs of the Integrated Primary Schools.

Chapter 2 outlined the historical development of SNE globally and in Ethiopia. The concepts covered in this chapter related to deafness and deaf education, concepts of inclusion and integration, integration of deaf learners in the regular classroom, international and national policies for deaf learners, basic educational programmes for deaf learners, materials and equipment to deaf learners in an integrated setting, physical learning environment to deaf learners, educational services and supports to deaf learners, curriculum modification and its benefits for deaf learners, social interaction of deaf learner in integrated schools, opportunities and challenges of deaf learners and the need for early intervention.

Chapter 3 presented the research methodology. The research used the approach of mixed-methods, a mixture of quantitative and qualitative methods. The research design was descriptive. To answer the research questions, 170 deaf learners, 55 teachers of deaf learners, and 10 principals were selected from 10 integrated primary schools found in 10 administrative zones of Amhara Regional State. They were selected using probability purposive sampling and non-probability sampling, namely, simple random sampling technique. Questionnaires, interviews and observation were the data collection techniques used in this study. The data collected from the questionnaire were analyzed and interpreted quantitatively using frequencies, percentages, means, standard deviations and one sample t-tests. Data gathered from the interviews and observations was analyzed qualitatively by thematic analysis.

Chapter 4 discussed the analysis and interpretation of the data collected from the questionnaires, interviews and observations. Oral language in the Integrated Primary Schools' compound was found to be the daily practical communication experiences of learners without hearing impairment, teachers, and administrative staff except deaf learners. Deaf learners are not familiar with the communication carried out in the Integrated Primary School compounds. Sign-language training was not provided for learners without hearing impairment, instructors of deaf learners, and other staff of the school. Learners with hearing impairments were hesitant to communicate and socialize with people. Deaf learners could not discuss any issues with any member of the school community through sign language. The learning of deaf learners was not facilitated due to the widely used oral language communication in the school compound. They could not communicate with any services like the library, the school guards, and the unit leader directly with sign language. In the school compound, deaf learners were not able to communicate with, interact or socialize with the school community like that of learners without hearing impairment. In the classroom, all teachers used the oral communication method in the teaching and learning process. Although SNE teachers of special units used sign language in the school compound, this did not have a direct benefit for deaf learners in the integrated classes. This was because these SNE teachers did not teach deaf learners in the integrated classes; rather, they were assigned to teach learners with disabilities in the special unit classes from Grades 1–4. In the integrated classes from Grades 5–8, deaf learners were disadvantaged in two ways: the instruction was through oral language which was the primary educational challenges of deaf learners in their educational life; and there were no oral language interpreters assigned to help deaf learners in the integrated classes. Thus, in the integrated school compounds and classrooms, the school community employed oral communication which led to deaf learners not actively being involved in such interactions. On certain occasions, SNE teachers used sign language to talk with deaf learners outside the classrooms which did not directly benefit deaf learners' classroom instruction.

Deaf learners were exposed to problems of communication in obtaining appropriate types of instructional methods in the teaching-learning processes of the Integrated Primary Schools. This was due to teachers' lack of special training in sign language, and there were no sign language interpreters. Teachers' use of oral language instructions in the classrooms had a negative influence on the education of deaf learners. Deaf learners were neglected in terms of learning methods, assessment methods and teaching aids which were not used to enhance their learning. Communication between deaf learners, teachers and other school communities was a serious barrier in the Integrated Primary Schools. Providing instruction without trained and

qualified teachers in sign language does not meet the sufficient educational requirements of deaf learners in the current realistic conditions of integrated schools.

Teachers in the Integrated Primary Schools were not able to explain their lessons and concepts in sign language because the instruction was in oral language. Thus, this affected the educational life, participation and overall achievements of deaf learners. In the classroom during the teaching-learning process, teachers used an inadequate number of teaching methods and inappropriate ways of educational achievement evaluation of deaf learners including lectures which were only oral, the oral question-and-answer method, assignments for group work and homework. Such methods seem to overlook the needs of deaf learners in their learning and provided educational challenges as they were not able to share their ideas with their learners without hearing impairment. Teachers also used limited assessment methods that did not address the needs of deaf learners. Tests, final exams, questioning and answering and assignments were the widely used methods. Even though teachers used low cost and locally available materials such as maps, charts and pictures, resource centers were poorly equipped with materials and equipment to assist deaf learners. Thus, deaf learners were not given basic assistive technologies such as hearing aids, augmentive devices, audiometers, television and televised announcements that could provide them with improved access to the instructional process.

As identified by this study, deaf learners obtained insufficient practical support from service providers in regular class settings. For instance, there was no appropriate individual instructional programme to support deaf learners and guidance and counselling services were not provided due to absence of professionals. There was no interpretation service in the laboratories, libraries, resource rooms or ordinary classrooms because of the lack of assignment of sign-language interpreter or an itinerant SNE teacher. The libraries were inadequately stocked with reference sign books and special reading rooms.

Deaf learners benefited from variety of actions taken in their learning in the Integrated Primary Schools. For instance, the established policies such as the Education and Training Policy and special needs education/inclusive education strategy guideline; financial support to deaf learners for their school uniforms and monthly pocket money, access to learning with learners without hearing impairment in the integrated schools were some of the opportunities.

It should be noted that there are also major challenges deaf learners faced in their learning.

The challenges of deaf learners according to participants in the Integrated Primary Schools included a lack of sign- language skills, lack of sign-language interpreters, poor resource room service access (like libraries, laboratories and resource rooms), inadequate educational material provision, poor social interaction with the school community, and inaccessible physical learning environment are the most serious challenges. From the study, it is possible to conclude that the major challenges deaf learners faced in academic practices of Integrated Primary Schools were communication barriers with teachers and the school community, instructional problems of teachers, lack of appropriate types of teaching methods, assessment methods and teaching materials in the teaching-learning process.

Deaf learners, principals and teachers discussed the assignment of teachers who had sign-language skills, provision of consecutive in-service and off-site support for deaf learner teachers and for the other school community members about sign-language skills, instructional and assessment methods, assignment of interpreters to the integrated classrooms, equipping the resource center with appropriate materials and professionals, giving training to deaf learners to maximize their social interaction with the school community.

5.4 CONCLUSIONS

The following key points were identified as the conclusions of the findings in the present study on educational practices, opportunities and challenges of deaf learners in Amhara region's Integrated Primary Schools. The presentation of the conclusions of this study focuses on accessibility of the school environment, availability of teaching materials, teachers' experience in teaching and assessment methods, communication among deaf learners, teachers and their peers, the opportunities and challenges of deaf learners in the Integrated Primary Schools.

In the Integrated Primary Schools, the school teaching environment and teaching materials were not accessible. Teachers do not use different types of teaching methods and local teaching aids and teaching methodologies were not helpful for deaf learners to understand the lesson. Teachers did not use appropriate assessment methods and did not give extra time for deaf learners in the teaching-learning process. There were no special accommodations which benefited deaf learners. There were no SNE teachers, sign-language teachers or sign- language interpreters to support teachers or interpret concepts to learners during lessons. The social relationships of deaf learners with learners without hearing impairment were poor. In communication between learners who were deaf and their learners without hearing

impairment, there was a difference. The participation of deaf learners in extracurricular activities of the Integrated Primary School was very limited. Deaf learners wanted to learn with other learners who had the same types of hearing problems in the same classrooms rather than with other learners without hearing impairments.

Although the Integrated Primary Schools are accepting deaf learners, their practice in teaching deaf learners is not encouraging. The schools have teachers who do not have sign-language skills, who have problems with classroom communication in the course of teaching-learning and who communicate poorly outside the classroom. Moreover, unsuitable teaching methods and assessment methods and the use of oral language by school community members, except SNE teachers of special units, have a negative impact on the education, social and communication skills of deaf learners. The interaction of deaf learners with the learners without hearing impairment, teachers and other administrative officers seemed to be good, but communication barriers still existed because of a lack of sign-language communication in the Integrated Primary Schools. Large number of learners within a class, problems in classroom seating arrangements for class discussions and groupwork, the absence of advanced assistive technological materials and teaching aids and locally available teaching materials, lack of sign-language interpreters, inadequate resources and infrastructure, and lack of professionals like counsellors and SNE experts to support them in their educational life in and outside the classroom were the most significant challenges of deaf learners that prevented them from attaining positive learning outcomes. The Integrated Primary Schools in Amhara Region lack appropriate educational materials and equipment. The resource rooms are not well-equipped which are absolutely necessary for the teaching and learning process. Thus, providing instructions without resource rooms, appropriate materials and equipment has a direct negative influence on deaf learners' education. The physical learning environment is such that deaf learners experience challenges from noise distractions in the integrated classrooms. Thus, besides learners hearing impairments, noise distractions hamper the teaching and learning process. Deaf learners experience serious challenges in the provision of services and supports as a result of communication gap and the absence of trained professionals in sign language and SNE.

5.5 RECOMMENDATIONS

As indicated in the findings of this study, the educational challenges deaf learners encountered while learning in the Integrated Primary Schools are diverse. To reduce these educational challenges and elevate their educational opportunities, the following recommendations are made.

5.5.1 Recommendations for Schools

- The Integrated Primary Schools need to design policies, strategies and mechanisms that solve and/or minimise the educational challenges of deaf learners. Ethiopia has come a long way in the Education for All process; however, there is still gap in providing access to all children. To reduce the existed gap and to actualize EFA, a policy and implementation strategy for accessing integrated schools for all children should be in place. The final goal of the policies and the strategies should be to avoid exclusion and barriers and minimize challenges with access to quality education for deaf children.
- The Integrated Primary Schools need to design strategies on how to maximise the integration of learners with and without hearing disabilities, teachers and the school community in general to achieve better in the education system. The education system, irrespective of poverty, gender, ethnic background, language or type of disability should be available to all learners. The principle is that all children and learners are better off when they are integrated and included.
- The Integrated Primary Schools need to recruit teachers who hold specialisations in SNE and sign-language skills, and they need to assign sign-language interpreters to provide services to address the instructional needs of deaf learners in the integrated classrooms. Universities and Teacher Education Colleges should be tasked with establishing SNE teacher training that responds to needs and supports to learners with special needs. Training of specialist itinerant resource teachers who have knowledge, skills and experience to advice and support learners with disabilities is very important.
- Schools must understand their learners' diverse needs and adapt to them. The fact of integrating learners with disabilities with other learners in classrooms intended for meeting the needs of all learners. But the needs of learners with disabilities are unmet. To avoid these challenges of learners with disabilities, it is important to offer special attention and consideration to learners with disabilities.

5.5.2 Recommendations for the Authorities

- In Ethiopia, there are no registered private or governmental organizations and institutions which provide sign-language interpretation services for deaf learners in different settings including in inclusive schools. The MoE, Ministry of Civil Service, Ministry of Labour and Social Affairs and National Association of Deaf people should think about establishing organizations and institutions which could provide sign-language interpretation services for deaf people. Deaf learners who are learning their education in inclusive settings can gain access to education only through the hands of their sign- language interpreter. This is a significant responsibility of organizations which are enrolling deaf people. The sign-language interpreter helps to close the gap in communication between deaf and hearing persons. The function of the sign-language interpreter complements the use of assistive technology devices in the inclusive learning environment.
- The Integrated Primary Schools in collaboration with zonal and regional educational offices should arrange training for teachers of deaf learners in the integrated classes, in areas of how to use teaching aids, teaching methodologies and assessment methodologies. In order to provide quality education and to satisfy the unique needs of learners with disability, training for teachers on teaching methodology, assessment technique and use of teaching aids is needed. Such training in turn would enhance the inclusion of children and learners with disabilities into schools and improve teaching materials supplied to learners with disability.
- The Integrated Primary Schools in collaboration with zonal and regional educational offices should plan training on sign language communication skills of learners without hearing impairment, teachers and school communities so that the school community can make communication easier and provide effective support to deaf learners. In what is referred to as a total communication approach, most educational programmes include both oral and manual approaches. The simultaneous use of speech and signing, such as gestures, signals, finger spelling, speech reading, and printing, involves total communication. These systems of communication require training of teachers and the hearing community of the schools.
- The Integrated Primary Schools in collaboration with zonal and regional educational offices should provide well-equipped resource centers with adequate materials and resources which would contribute to the progress of learners in academics. The resource room is considered as one form of service delivery within the schools where learners with disabilities are enrolled. Opening resource rooms in integrated educational environments offers extra services for children who need additional assistance or intensive education services.

- The Integrated Primary Schools in collaboration with zonal and regional educational offices should make the physical environment of the Integrated Primary Schools easily accessible to deaf learners. Learners who have different types of impairments face a large variety of learning obstacles. Often these barriers are associated with schools' environmental accessibility. In order to overcome these barriers, schools need to develop a welcoming environment for all children without discrimination. Extra space is necessary to accommodate assistive equipment for deaf learners and to prepare rooms which do not have sound problems.

5.5.3 Recommendations for Teachers

- Modification of the curriculum of the general education system is essential to promote inclusion and to benefit learners with disabilities, learners without disabilities and teachers. An efficient way to build more open learning environments to help all learners and their teachers in different educational contexts is to modify the existing general curriculum. The modification of the curriculum is successful in enhancing EFA and providing valuable resources to enhance real classroom activities for different learners. The inclusive curriculum includes modifications, substitutions, exemptions and compensation to meet the educational needs of children.
- When teachers present oral presentations for deaf learners, they should be explicit, avoid vague phrases and provide sufficient time to complete class activities. Teachers should, above all, provide deaf learners with a healthy and comfortable atmosphere and encourage a better interaction between deaf learners and the rest of the class.
- Teachers should consider the differences between deaf and learners without hearing impairment so that they should adapt the pace of their teaching for deaf learners. Instead of speeding up their teaching to cover the curriculum, teachers should give attention to deaf learners' learning strategy. Inclusive education focuses primarily on children with disabilities and children living in poverty mainly those from linguistic and ethnic minorities with unique educational needs.
- Teachers should not rely only on learners without hearing impairment' oral response to decide on the teaching-learning process. They should avoid talking out of the sight of deaf learners in the classroom. Moreover, teachers should take into account the responses of deaf learners too.
- Teachers and principals of the Integrated Primary Schools should work on how to improve the practice, participation and overall educational achievements of deaf learners. Teachers in deaf learners' classrooms need to be mindful of how practice can be changed to ensure deaf learners' involvement. This can be achieved through offering visual

encouragement for learning by proper use of white/chalk board, providing handouts, using various visual aids on what is being explored and writing new vocabulary items.

- Sign-language training for teachers who are teaching deaf learners in the Integrated Primary Schools should be arranged. Often, teachers do not have sign-language skills and do not understand the structure of sign-language. As a result, teachers have a tendency to over-exaggerate movements when speaking to a learner with hearing impairments. This only confuses the deaf learners and makes it impossible to lip-reading. When speaking, the teacher should always face the deaf learner. In order to minimize the teachers' problems in teaching deaf learners, it is helpful to provide training on sign-language skill and structure. The primary means of communication for children who are deaf and those with very little hearing is by sign language; alternative means of communication can be lip-reading or reading and writing. Teachers' ought to take lessons of sign language provided by deaf people. Deaf adults who are qualified as sign-language teachers are also the best in providing sign-language trainings.

5.6 STRENGTHS AND WEAKNESSES OF THE STUDY

The research has gone some way to enhance the comprehension of policymakers of the principles of deafness, teaching methods, assessment mechanisms, teaching materials and teaching aids of deaf learners and about deaf education. The MoE and Ministry of Civil Service at national level and Education Bureau and Civil Service Bureau at regional level could develop policies regarding educating deaf learners based on the recommendations given through this study. The study enhanced the understanding of teachers, school principals and education experts on what deaf learners need in the integrated schools. As a result, the findings of this study are supposed to enhance the knowledge of teachers, principals and education experts on educational practices of integrated schools in teaching deaf learners. Taken together, these findings have shown how absence of communication of teachers with deaf learners is negatively affecting the performance of deaf learners in the integrated schools. Different professionals in the field of SNE working in Ministry of Education, Regional Education Bureau, Zonal and Woreda Education Offices can get evidential information from this research. Additionally, teachers of deaf learners and school principals can improve their effectiveness in supporting deaf learners and managing Integrative Schools.

Moreover, the strength of the study lies in the literature review. It was comprehensively and extensively done in relation to the specific research problem raised from the outset. Participants' role during data collection can also be considered as one of the strong sides of the study. They were all active and eager to provide relevant information. The researcher took

much time to collect and analyze data. The topic under investigation was interesting and the fact that this work is intended to bring about positive change in the education of deaf learners is also strength in itself. Arguments and contributions from different perspectives were heard, i.e., learners, teachers, and principals. All participants' opinions were taken into consideration during data analysis and recommendations. This is what makes the study strong and relevant.

The key limitation of this research may be linked to the field delimitation of the study.

- The study was restricted only to one region (i.e, Amhara Nationa Regional State), to help the researcher manage the study timely and with the allocated research budget. This would not mean that the selection of the participants was a mistake, for it includes all concerned bodies that are believed to provide relevant data for the study.
- A further weakness was the limited time constraints of this study. The qualitative data had to be transformed in some way by using mixed-method research approaches so that it could be integrated within the quantitative phase of the research. When it is considered that the qualitative data was in the form of texts and the quantitative data was in the form of numerical details, it is at best difficult to combine the data. For this reason, Creswell (2014) advised that research into mixed methods presents difficulties, including the need for detailed data collection, the time-intensive nature of both textual and numerical data analysis, and the need for the researcher to be familiar with both qualitative and quantitative research types. The researcher wants to suggest that other researchers can do research that covers the topics not covered by this thesis in order to address the difficulties that the researcher encountered.

In addition, this research had subsequent significant limitations that the investigator faced during the study.

- The researcher himself did not know sign language and relied on interpreters who might not have conveyed the correct message to the interviewers and the researcher during interviews. For instance, certain concepts were difficult to interpret in sign language and concepts to substitute those might have not precisely meant what the researcher was asking or what he wanted to know.
- Another weakness could be that the researcher may have not transcribed interview notes correctly which might have compromised the quality of research.
- The researcher also believes that since English is not the researcher's mother tongue, it

was difficult to put ideas across in writing; hence, the editor might have captured thoughts incorrectly in the quest of bringing this work to the required standard.

Literature on the inclusion of deaf learners from the Ethiopian perspective is scarce. The information used for this research work is mostly from foreign writers and researchers; therefore, some of the suggestions/ideas might not be applicable or suitable to the Ethiopian situation and/or problems.

5.7 FUTURE RESEARCH

The focus of the study was on the assessment of deaf learners' educational practices, opportunities and challenges of Amhara Regional State Integrated Primary Schools. Future research is recommended on the impact of integration on learners' attitudinal, social, psychological and related factors with a large sample which could be generalized to a wider population.

CHAPTER 6

FRAMEWORK MODEL OF THE STUDY

6.1 INTRODUCTION

Based on the previous chapters of the study, the researcher conceptualised that if educational challenges of deaf learners were minimised and since they have lots of potential which should be developed to the fullest extent, they can achieve their educational goals and contribute to the development of their country which is only possible through education. As they also have the right to education, they should be provided with all the educational opportunities and facilities for their overall development.

The findings on the deaf learners' educational practices, opportunities and challenges in the Integrated Primary Schools included:

- inaccessible environments for teaching;
- lack of materials for instruction; teachers do not used various types of methods of teaching;
- improper use of methodologies for assessment;
- teachers used oral languages for teaching only;
- weak social connections and communication differences with learners without hearing impairment; and
- teachers of deaf learners as well as other staff of the Integrated Primary schools do not have sign-language skills.

Consequently, via exploring the research works and the results from research participants, the researcher has constructed a framework model regarding the educational practices, opportunities and challenges of deaf learners.

Integrated education is a type of education where everybody is given equal opportunities to be taught without discrimination or bias in the ordinary classroom and describes the process by which a school attempts to respond to all learners as individuals by reconsidering its curricular organization and provision. Through such a method, the school enhances its ability to accommodate all local community learners with and without disabilities by developing readily accessible schools and fostering social, environmental and teaching circumstances that minimize the challenges of learners with disabilities in general and deaf learners in particular.

6.2 THE INTEGRATED SCHOOLS FRAMEWORK MODEL FOR DEAF LEARNERS

According to UNESCO (2019), the central principle of inclusive schooling is that wherever possible, all children should learn together, regardless of any challenges or differences they might have. Inclusive schools must recognise and adapt to the diverse needs of their learners through effective curricula, organisational frameworks, teaching practices, the use of resources and partnerships with their communities, accommodating all different styles and levels of learning, and guarantee quality education for all. There should be a range of care and resources to meet the variety of special needs faced in every school. In order to ensure effective education within inclusive schools, children with special educational needs can receive any additional assistance they may require. Inclusive education is the most effective way to build harmony between children with special needs and their peers. Transfer to children to special schools or special classes or sections of a school on a permanent basis should be an exception, to be recommended only in extraordinary cases where it is clearly seen that schooling in regular classrooms is inadequate to meet the educational or social needs of a child or where it is necessary for the well-being of the child or that of other children.

Integrated schools in the study area could not meet the need of deaf learners. The majority of services are available for persons without disabilities, despite the Ethiopian government ratifying different international and national conventions on the educational and other rights of PwDs and recognized social protection as one of the key instruments for promoting inclusive and pro-poor growth and development (MoLSA, 2016). For example, Articles 41 and 91 of the Ethiopian Constitution particularly emphasise the need to allocate resources and services for persons with special needs. Access to health, education and other social services: health fee waivers, subsidised health insurance, specialised services for people with disabilities (PwDs), vaccination and care services for pregnant and lactating women, and school feeding together with support from an expanded social work system, which improve access to services for the most vulnerable people are the integrated focus areas as strategic directions in national social protection strategy of Ethiopia (MoLSA, 2016). The government of Ethiopia has also signed and ratified the UNCRPD. In December 1991, the government of Ethiopia implemented the UN Convention on the Rights of Children. According to Article 9(4) of the FDRE Constitution, all international conventions ratified by the Government of Ethiopia are an integral part of the country's law. Following this, Article 13 provides that it is the duty of all legislative, executive and judicial bodies to respect and enforce what is embodied in the clause, which should be done in accordance with human rights considerations.

In addition, health, education and social welfare policy documents express statements that uphold the security, treatment, health and optimal development of children with their scope of influence that involves the progressive realisation of social protection objectives to provide a decent standard of living and equitable access to services for all citizens (MoLSA, 2015). However, due to the teaching practices in the Integrated Primary Schools, deaf learners face several challenges and the education system is not fully accessible to them. Consequently, the researcher suggests that the MoE and other education stakeholders should create accessible educational settings and an education system that would address the educational, social, communication and other needs of deaf learners particularly and all learners with disabilities generally as Figure 6.1 below shows.

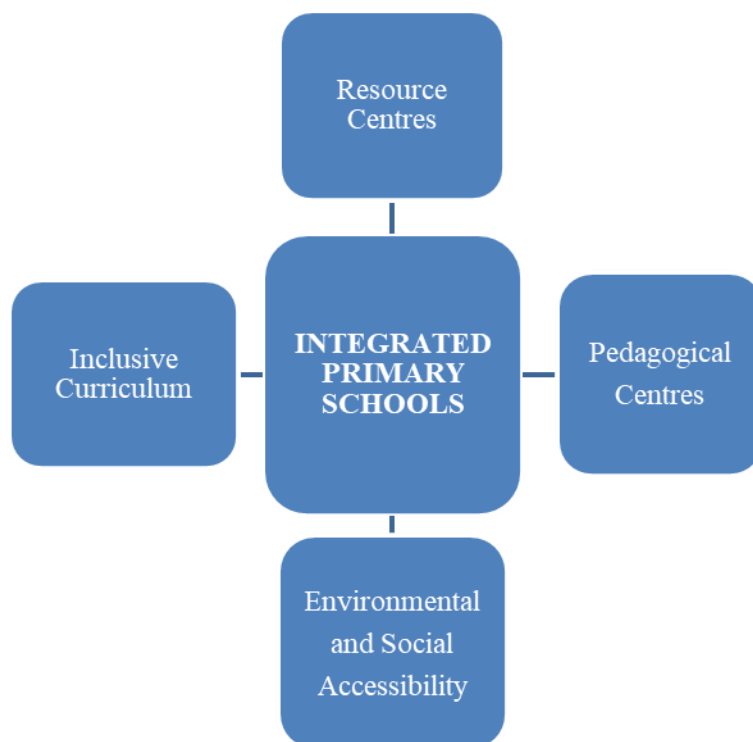


Figure 6.1: Integrated primary schools

Source: Researcher's own

6.3 PLACEMENT OPTIONS FOR DEAF LEARNERS

The core philosophy behind this framework is that integrated schools, regardless of their physical, academic, social and emotional, linguistic or other circumstances in general and especially for deaf learners, should adapt their educational and environmental situations for all children. All these settings can be accessible by deaf learners. This is because the educational, social and environmental contexts of integrated schools of the country do not currently follow finest practice. Learners with special needs should have different types of educational placement options as shown in Figure 6.2 below.

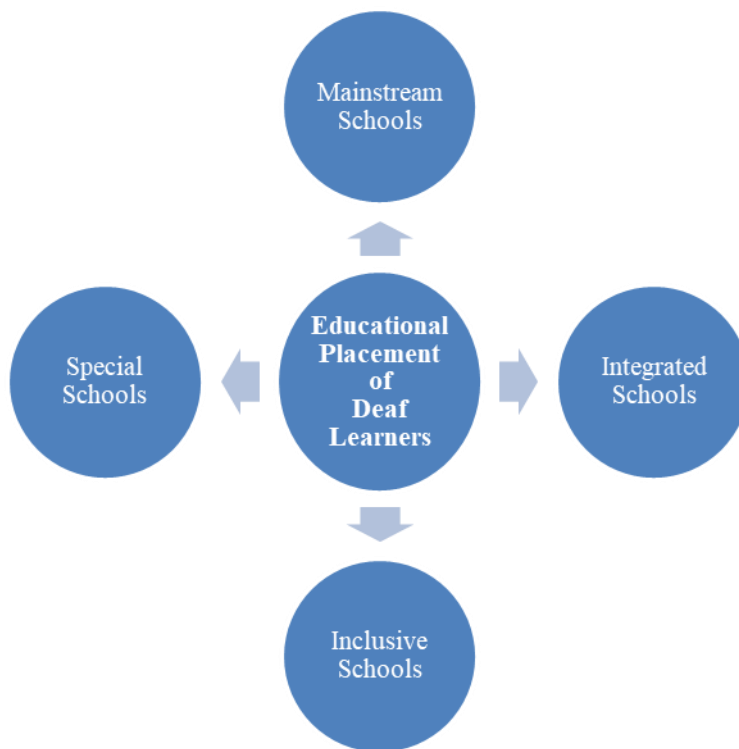


Figure 6.2: Educational placement of deaf learners

Source: Researcher's own

6.4 FINAL REMARKS

To better serve the needs of all learners, educating learners with and without disabilities together will encourage significant improvements of deaf learners and improvements of general education. There are several reasons for offering opportunities for deaf learners to learn and communicate with their peers of learners with and without disabilities. For both learners and their teachers, teaching both types of students together can be advantageous. Learners without disabilities grow in social awareness, and as a result of witnessing inclusive education, they can achieve a deeper understanding and appreciation of deaf learners and diversity as a whole.

When deaf learners are educated with their friends of learners without hearing impairment, they develop age-appropriate social skills by imitating learners without hearing impairment in the environments where they have been instructed. For deaf learners, integrated environments offer a demanding atmosphere. These learners, therefore, learn to be more independent and gain advanced skills in terms of growth. Often by getting the ability to do as other learners do, they will build friendships and a more positive self-image. By teaching in integrated environments, both regular education teachers and integrated education teachers will understand the integrated settings. Teachers in regular education have the ability to hear about disabilities and special education. In addition, both teacher groups are able to share knowledge on teaching practices and teaching methods, thus expanding their abilities. When the above-mentioned benefits of integrated schools are realised, integrated education will be able to develop into inclusive education.

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APPENDICES

APPENDIX A: ETHICAL CLEARANCE



UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2018/10/17

Ref: **2018/10/17/53342682/05/MC**

Dear Mr Mengistu:

Name: Mr YA Mengistu

Student: 53342682

Decision: Ethics Approval from
2018/10/17 to 2023/10/17

Researcher(s): Name: Mr YA Mengistu
E-mail address: 53342682@mylife.unisa.ac.za
Telephone: +251 91 285 1042

Supervisor(s): Name: Prof MO Maguvhe
E-mail address: maguvmo@unisa.ac.za
Telephone: +27 12 481 2768

Title of research:

Assessment of the education of deaf students in the integrated primary schools of Amhara National Regional State: Practices, Opportunities and Challenges

Qualification: PhD in Inclusive Education

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2018/10/17 to 2023/10/17.

*The **medium risk** application was reviewed by the Ethics Review Committee on 2018/10/17 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.



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2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the UNISA College of Education Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date **2023/10/17**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2018/10/17/53342682/05/MC** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Kind regards,



Dr M Claassens
CHAIRPERSON: CEDU RERC
 mcd@netactive.co.za



Prof V McKay
EXECUTIVE DEAN
 Mckayvi@unisa.ac.za

Approved - decision template – updated 16 Feb 2017

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APPENDIX B: PERMISSION FROM AMHARA NATIONAL REGIONAL STATE EDUCATION BUREAU



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Amhara National Regional State Education Bureau

☎ 0582204747 (220 4857)

☎ 764

FAX 220801

Ref. No: Edu.B.2/ 237/Cu-14/12

Date: 12/12/2017

To: University of South Africa

College of Education

South Africa

Subject: Consent Letter to Mengistu Yitayal Alemu

It gives me a pleasure to write a consent letter to Mengistu Yitayal Alemu student number 53342682 a PhD candidate at the University of South Africa in Inclusive Education under the project title **An Assessment of the Education of Deaf Students in the Integrated Primary Schools of Amhara National Regional State: Practices, Opportunities and Challenges**. We agreed with his project title and permit him to cooperate in providing the necessary information and ask different integrated schools and individuals in Amhara National Regional State Education Bureau and permit him to discuss, administer Questionnaire and Interviews with individuals and groups of the concerned bodies and also use observation etc. for his research work under the guideline of UNISA research ethics.



Aboba Sisay

Director of Curriculum Development and Implementation, Expert

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APPENDIX C: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT SCHOOLS



Appendix H: REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT YOUR SCHOOL

Dear principal,

I, Mengistu Yitayal Alemu am doing research with **Professor M.O. Maguvhe** in the Department of Education towards a Doctor of Education at the University of South Africa. We are inviting you to participate in the study entitled: **An Assessment of the Education of Deaf Students in the Integrated Primary Schools of Amhara National Regional State: Practices, Opportunities and Challenges.**

The aim of this study is to assess the practice, opportunities and challenges of deaf students in the integrated primary schools of Amhara National Regional State.

Your school has been selected because it is one of the integrated primary schools which teaches deaf students in the region. The study requires collecting data on the education of deaf students regarding the practices, opportunities and challenges from purposively selected integrated primary schools, randomly selected deaf students and purposively selected teachers of deaf students and principals in Amhara National Regional State Education Bureau.

The benefits of this study are to improve the education of deaf students in the integrated primary schools by indicating direction for what kinds of interventions and accessibilities should be there to provide quality education. Additionally, the benefits of this study are that it will explore the practices, opportunities and challenges of deaf students in the integrated primary schools and it will suggest strategies to eliminate the challenges. When the study has been completed a soft copy and a hard copy will be made available to your school. There are no potential risks anticipated in the study. Feedback procedure will entail discussing the research findings with you, deaf students and teachers of deaf students.

Yours sincerely

Mengistu Yitayal Alemu

Doctor of Education Student, University of South Africa.

Tell: +251 9 12 85 10 42

Email: yitayal.alemu@yahoo.com

Supervisor: **Professor M.O. Maguvhe**

Telephone number: Email: maguvmo@unisa.ac.za

APPENDIX D: PARENTAL CONSENT



I. A LETTER REQUESTING PARENTAL CONSENT FOR DEAF STUDENTS TO PARTICIPATE IN A RESEARCH PROJECT

Dear Parent

Your child is invited to participate in a study entitled *An Assessment of the Education of Deaf Students in the Integrated Primary Schools of Amhara National Regional State: Practices, Opportunities and Challenges*.

I am undertaking this study as part of my doctoral research at the University of South Africa. The purpose of the study is to assess the practice, opportunities and challenges of deaf students in the integrated primary schools of Amhara National Regional State and the possible benefits of the study are the improvement of the education of deaf students by exploring the practices, opportunities and challenges of deaf students in the integrated primary schools. I am asking permission to include your child in this study because he is a deaf student in the integrated primary school. I expect to have 249 other children participating in the study.

If you allow your child to participate, I shall request him/her to take part in an interview and questionnaire. First the integrated primary schools will be selected purposely and then samples will be randomly selected from the sample integrated schools and then the selected samples will be communicated and informed about their selection. The samples then will be told to set date and place for interview and questionnaire. The data collection will take around six months.

Any information that is obtained in connection with this study and can be identified with your child will remain confidential and will only be disclosed with your permission. His/her responses will not be linked to his/her name or your name or the school's name in any written or verbal report based on this study. Such a report will be used for research purposes only.

There are no foreseeable risks to your child by participating in the study (if, however, there are any risks involved in your study, they should be mentioned here). Your child will receive no direct benefit from participating in the study; however, the possible benefits to education are improve the education of deaf students. Neither your child nor you will receive any type of payment for participating in this study.

Your child's participation in this study is voluntary. Your child may decline to participate or to withdraw from participation at any time. Withdrawal or refusal to participate will not affect him/her in any way. Similarly you can agree to allow your child to be in the study now and change your mind later without any penalty.

The study will take place during regular classroom activities (or state when, if at an alternative time) with the prior approval of the school and your child's teacher. However, if you do not want your child to participate, an alternative activity will be available (state what the alternative activity will be).

In addition to your permission, your child must agree to participate in the study and you and your child will also be asked to sign the assent form which accompanies this letter. If your child does not wish to participate in the study, he or she will not be included and there will be no penalty. The information gathered from the study and your child's participation in the study will be stored securely on a password locked computer in my locked office for five years

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after the study. Thereafter, records will be erased. The benefits of this study are to improve the education of deaf students in the integrated primary schools by indicating direction for what kinds of interventions and accessibilities should be there to provide quality education. Additionally, the benefits of this study are that it will explore the practices, opportunities and challenges of deaf students in the integrated primary schools and it will suggest strategies to eliminate the challenges. There is no risk associated with participating in this research. This research is in no way connected to the educational achievement of deaf students. There will be no reimbursement or any incentives for participation in the research.

If you have questions about this study please ask me or my study supervisor, **Professor M.O. Maguvhe**, Department of Inclusive Education, College of Education, University of South Africa. My contact number is +251 912851042 and my e-mail is yitayal.alemu@yahoo.com. The e-mail of my supervisor is maguvmo@unisa.ac.za. Permission for the study has already been given by Department of Inclusive Education and the Ethics Committee of the College of Education, UNISA.

You are making a decision about allowing your child to participate in this study. Your signature below indicates that you have read the information provided above and have decided to allow him or her to participate in the study. You may keep a copy of this letter.

Name of child:

Sincerely

Yeshimebet Walelign Kassa

Parent/guardian's name

Mengistu Yitayal Alemu

Researchers name



Parent's signature:



Researcher's signature

17/12/2017

Date:

17/12/2017

Date:

APPENDIX E: INFORMED CONSENT FROM TEACHERS

33



J. CONSENT LETTER OF TEACHERS OF DEAF STUDENTS TO PARTICIPATE IN THE STUDY

I, Asiratle Minwuyelet Nurie, confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had it explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be anonymously processed into a research report, journal publications and/or conference proceedings.

I agree to the recording of the questionnaire.

I have been assured that I will receive a signed copy of the informed consent agreement.

Name & Surname of participant (print)



Date: 17/12/2017

Name & Surname of researcher (print)

Mengistu Yitayal Alemu



Date: 17/12/2017

APPENDIX F: OBSERVATION CHECKLIST OF THE SCHOOLS COMPOUND AND CLASSROOMS

University of South Africa College of Education Department

Inclusive Education Dissertation on:

An Assessment of the Education of Deaf Learners in Integrated Primary Schools of Amhara National Regional State Ethiopia.

Observation Checklist

1. Teaching and Learning

- Curriculum (Planned objectives, activities etc.)
- Subject type and content
- Methods of Teaching
- Sign language
- Oral only
- Written only
- Oral written
- Teaching aids
- Assistive technology
- Assessment Methods

2. Social Interaction

- Among themselves
- With other learners
- With teachers
- Involvement in extra curricula activities

3. School Environment

- Main gate and exit of the school
- School health and physical activity
- Fence
- Play ground
- Physical accessibility
- Neatness of the environment
- Space
- Classroom environment
- Classroom settings
- Neatness
- Ventilation
- Chair and table arrangement

5. Participation of deaf learners in the classroom

- High
- Medium
- Low

- Participate as equally as others
- Less than others
- More than others

6. Care and support

- Directors
- SNIE Teachers
- Other teachers
- Other learners
- Guards
- Library workers
- Sanitary workers

7. Services and/or supplies

- Resource center
- Toilet
- Water
- Refreshment

APPENDIX G: INTERVIEW GUIDE FOR DEAF LEARNERS

University of South Africa College of Education Department

Inclusive Education Dissertation on:

An Assessment of the Education of Deaf Learners in Integrated Primary Schools of Amhara National Regional State Ethiopia.

Interview Guide for Deaf Learners

1. How accommodating is your school education system for deaf learners.
 - Resources available
 - Teaching Methodologies
 - Assessment Methods
 - Curriculum Modification
2. What challenges do you have in your schools?
3. What opportunities do you have in your school?
4. What educational measures, do you think, your school put in place to create accommodating learning environment.
5. How do you see the educational program you are receiving in terms of “Quality Educators for All” Learners?
6. What do you comment to be improved in the future?

APPENDIX H: INTERVIEW GUIDE FOR TEACHERS OF DEAFLEARNERS AND PRINCIPALS

University of South Africa College of Education Department

Inclusive Education Dissertation on:

An Assessment of the Education of Deaf Learners in Integrated Primary Schools of Amhara National Regional State Ethiopia.

Interview Guide for Deaf Learners Teachers and Principals

1. How welcoming education systems have your school for deaf learners?
 - Resources available
 - Teaching Methodologies
 - Assessment Methods
 - Curriculum Modification
2. What educational measures, do you think, your school put in place to create accommodating learning environment.
3. What are the current best opportunities in your school which you want to share with other school who teach deaf learners?
4. How do you involve parents in their children's (deaf learners) education?
5. Do you have any training that helps you to coordinate and support the education of deaf learners?
6. How are deaf learners participating in the school?
7. What special supports are you providing for deaf learners in your school?
8. What type of teaching methods are you mostly using to teach deaf learners? Why?

9. How do you evaluate the adequacy of teaching aids which are available in the school to support deaf learners?
10. What do you think are the major challenges of teaching deaf learners in your school?
11. What comments, suggestions and recommendations do you have for further improvement of the current teaching-learning practices of deaf learners?

APPENDIX I: QUESTIONNAIRE FOR DEAF LEARNERS

University of South Africa College of Education Department

Inclusive Education Dissertation on:

An Assessment of the Education of Deaf Learners in Integrated Primary Schools of Amhara National Regional State Ethiopia.

Background Information of Learners

Filled by Deaf Learners

Dear learners the purpose of this questionnaire is to assess the educational practice, opportunities and challenges of deaf learners in the Integrated Primary Schools of Amhara Regional State and to suggest possible solutions for the problems. There by, to suggest feasible solutions to the concerned bodies. So, the clear and right answers you give is very important for the success of this study. Your answers are kept confidential and will only be used for academic purpose. Besides you do not need to write your name. The researcher thanks you for your participation.

Part One: Background Information of the Deaf Learners

Direction one: For the following questions choose and circle the right answer.

Sex:

A. Female

B. Male

1. Age:

A. Below 12 years old

B. Below 12–14 years old

C. Below 15-17 years old

D. Below 18 years old

2. Grade level: _____

3. Age of onset of hearing loss

- A. Before birth
 - B. After birth
4. Cause of hearing deafness
- A. Disease
 - B. Accident
 - C. Unknown

Deaf Learners Questionnaire on the education of deaf learners in the integrated primary schools of Amhara Region

Instruction 2: For the following questions decide your answer and put “x” symbol.

No.	Items	Yes	No
1	In your school is there an accessible school teaching environment for you?		
2	In your school is there a sufficient teaching material for you?		
3	Do teachers use different types of teaching methods while they teach you?		
4	Does teachers used local teaching aids in your classroom?		
5	Are teachers teaching methodologies helpful for you to understand the lesson?		
6	Does teachers used appropriate types of assessment methods?		
7	Do teachers give you extra time in the teaching-learning process?		
8	In your school are there special needs education teachers who support and teach you?		
9	In your school are there special accommodations which benefit you?		
10	Are there sign-language teachers who teach you?		
11	Are sign-language interpreters involved during lessons?		
12	In your school are there opportunities for you to cope up your education?		
13	Is there any communication gap between you and your peers to communicate well with each other?		
14	In your school are there challenges you faced in the integrated classroom		
15	Are you able to overcome these challenges you faced in the school?		
16	Do you have social relationship with your peers in the school?		
17	Do you participate in the extracurricular activities of the school?		
18	Are you satisfied with being integrated with other learners in the integrated school and classroom?		
19	I want to learn in the classrooms of deaf learners?		
20	I want to learn out of the classrooms of deaf learners?		

APPENDIX J: QUESTIONNAIRE FOR TEACHERS OF DEAF LEARNERS

University of South Africa College of Education Department

Inclusive Education

Thesis on: Assessment of the Education of Deaf Learners in the Integrated Primary Schools of Amhara National Regional State.

Background Information of Teachers

Filled by Teachers of Deaf Learners

Dear teachers the purpose of this questionnaire is to assess the educational practice, opportunities and challenges of deaf learners in the Integrated Primary Schools of Amhara Regional State and to suggest possible solutions for the problems. There by, to suggest feasible solutions to the concerned bodies. So, the clear and right answers you give is very important for the success of this study. Your answers are kept confidential and will only be used for academic purpose. Besides you do not need to write your name. The researcher thanks you for your participation.

Background Information of the Teachers of Deaf Learners

Instruction 1: For the following questions choose and circle the right answer.

No.	Items	Options	Put "X" mark
1		Female	
		Male	
2	Year of experience	< 4 years	
		5 -10 years	
		11 – 15 years	
		16-20 years	
		21 years and above	
3	Academic qualification	Diploma	
		First Degree	
		Second Degree	
4	Subject Specialisation	Special Needs Education	
		Others	

Questionnaire

Dear teachers please put your choices among the alternatives given. “SD” stands for “Strongly Disagree” (1), “D” stands for “Disagree” (2), “N” stands for “Neutral” (3), “A” stands for “Agree” (4) and “SA” stands for “Strongly Agree” (5).

Questions on the education of deaf learners in the Integrated Primary Schools of Amhara Region

Direction Two: For the following questions decide your answer and put “✓” mark.

No	Items	SD	D	N	A	SA
1	I have sign-language skill to teach deaf learners					
2	I used different types of teaching methodologies to teach deaf learners					
3	I motivate deaf learners when I teach them in the classroom lessons					
4	It is easy to get the resources I need to teach deaf learners at this school					
5	I often use different teaching aids to teach deaf learners					
6	I often use different types of assessment methodologies to teach deaf learners					
7	I believe deaf learners have different opportunities in the school and in the classroom					
8	I believe deaf learners are facing different challenges in the school and in the classroom					
9	Deaf learners participate actively in the extracurricular activities of the school					
10	I feel safe when I teach deaf learners in the integrated school and classroom					
11	I am confident in my ability to support deaf learners learning at the school					
12	I am confident in the social relationship of deaf learners with other learners at school?					
13	The administrations give me different supports when I teach deaf learners					
14	The school gives too much attention to resources, teaching aids, teaching methodologies and assessment techniques of deaf learners					
15	I am confident by the school to support deaf learners learning at the school					
16	The school gives much attention to my professional growth					
17	I am satisfied in teaching deaf learners at this school					
18	I help deaf learners learning to do things for themselves					
19	I help deaf learners to understand the content when they are learning in the school					
20	Administrators in the school create a school environment that helps deaf learners learning					

APPENDIX K: TURNITIN REPORT

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Declaration of Professional Editing

Assessment of the Education of Deaf Students in the Integrated Primary Schools of
Amhara National Regional State: Practices, Opportunities and Challenges

By:

Mengistu Yitayal Alemu

This is to certify that I have edited and proofread the above mentioned PhD thesis by Mengistu Yitayal Alemu. My role was restricted to language usage and spelling, completeness and consistency, referencing style and formatting, captions and Tables of Contents. My job didn't involve rewriting of the content.

I am a professional editor possessing a Master's Degree in English and a PhD degree in Linguistics, having taught different writing courses of English to university students and providing IELTS trainings to university lecturers. What is more, I am an experienced editor of research works like Articles, Masters and Doctoral Theses, Proceedings, and Reports.

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Assessment of the Education of Deaf Students in the Integrated Primary Schools of Amhara National Regional State: Practices, Opportunities and Challenges

By:

MENGISTU YITAYAL ALEMU

I declare that I have edited and proofread this thesis. My involvement was restricted to language usage and spelling, completeness and consistency, referencing style and formatting of headings, captions and Tables of Contents. I did no structural re-writing of the content.

I am qualified to have done such editing, being in possession of a Bachelor's degree with a major in English, having taught English to matriculation, and having a Certificate in Copy Editing from the University of Cape Town. I have edited more than 200 Masters and Doctoral theses, as well as articles, books and reports.

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**Assessment of the Education of Deaf Students in the Integrated Primary Schools of
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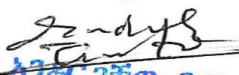
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