

**INFLUENCE OF SOCIALIZATION ON ACADEMIC PERFORMANCE OF  
LEARNERS WITH HEARING IMPAIRMENT IN THAWABU INCLUSIVE  
SCHOOL IN EMBAKASI, NAIROBI CITY COUNTY, KENYA**

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**A RESEARCH THESIS SUBMITTED IN PARTIAL FULFILMENT FOR THE  
DEGREE OF MASTER OF EDUCATION (SPECIAL NEEDS EDUCATION) IN  
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**FEBRUARY, 2020**

**DECLARATION**

I declare that this thesis is my original work and has not been presented in any other university /Institution for any certification. This research thesis has been completed by referenced source duly acknowledged where text, data (including spoken words) graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and reference cited using current APA system and in accordance with anti-plagiarism regulations.

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## **DEDICATION**

To my beloved family: my husband Paul Adawo, children Swiney Leila, Fabio Capello and Yan Corwin. My parents; Paul Dalton and Mary Brenda and also my siblings who through encouragement gave me the strength to proceed on and my friends whose foresight in education and wisdom has brought me to this level of education.

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**ABBREVIATIONS AND ACRONYMS**

<b>ASL:</b>	American Sign Language
<b>DofH:</b>	Deaf children of hearing families
<b>EF:</b>	Executive Functioning
<b>HI:</b>	Hearing Impairment
<b>HL:</b>	Hearing Loss
<b>IEPs:</b>	Individual Education Plans
<b>KIE:</b>	Kenya Institute of Education
<b>KNEC:</b>	Kenya National Examination Council
<b>KSDC:</b>	Kenya Society for the Deaf Children
<b>KSL:</b>	Kenyan Sign Language
<b>KSLRP:</b>	Kenya Sign Language Research Project
<b>LAP:</b>	Language Acquisition Device
<b>LOI:</b>	Language of Instruction
<b>MCE:</b>	Manual Coded English
<b>MoE:</b>	Ministry of Education
<b>SE:</b>	Signed English
<b>SEE:</b>	Sign Exact English
<b>SL:</b>	Sign Language
<b>SNE:</b>	Special Needs Education

## ABSTRACT

The purpose of this study was to determine influence of socialization on performance of learners with hearing impairment in an inclusive Thawabu Primary School of Embakasi, Nairobi City County, Kenya. The study was guided by research objectives which sought to; establish modes of communication that promote socialization between learners with hearing impairment and hearing peers; enhance academic performance in Thawabu inclusive public school; establish strategies for boosting socialization of learners with hearing impairment and hearing peers to enhance their academic performance in Thawabu inclusive public school and establish challenges facing teachers in enhancing socialization to improve academic performance of learners with hearing impairment in Thawabu inclusive public primary school. The study targeted all learners with hearing impairment in Thawabu public primary school in Embakasi sub-county. The research design used in this study was case study design. Structured questionnaires and interviews were used to collect data. Purposive sampling technique was employed to select the school and learners with hearing impairment while hearing learners were randomly selected. Key informants were a headteacher, deputy headteacher, 10 teachers, learners with hearing impairment and hearing learners from Thawabu School. Pilot study was conducted in Wangu Primary school of Nairobi County. Piloting consisted of one (1) school head/teacher, two (2) teachers, five (5) hearing learners and (5) five learners with hearing impairment. Content validity was adopted where unclear directions, cluster questions, and wrong phrasing of questions were opened and cross-checked. Reliability was established through test re-test method which involved administering the same questionnaires at an interval of two weeks to the same group of respondents, and then comparing the two scores. A total of 32 respondents participated in the study. The data was analyzed using Statistical Package for Social Sciences (SPSS) computer program version 11.5, and frequencies and percentages used to summarize the data. The study found that: modes of communication among learners with hearing impairment, hearing learners and teachers create social and educational change for improvement of academic standards in the school and narrows the gap between those with hearing impairment and their hearing counterparts. Strategies like family support program (assisting children and families in language learning), family-infant-toddler program, and competent and consistent administration system promote learning. Socialization influences incidental learning of learners with hearing impairment to put them at par with their hearing peers on matters related to both academic performance and social advancement. Socialization makes learners with hearing impairment comfortable, self-esteemed, and self-actualized, hence improving educational performance. The study recommends that the government should add specially qualified teachers of learners with hearing impairment in Thawabu inclusive public school to help promote socialization and to increase inclusivity of learners with hearing impairment.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter presents the background of the study, statement of the problem, purpose, objectives of the study and research questions, assumptions of the study, limitations and de-limitations of the study, significance of the study, theoretical and conceptual framework and operational definition of key terms.

#### **1.1 Background to the Study**

Every child has a legal right to basic and equal educational opportunity irrespective of their difficulties and disabilities. This calls for schools to modulate ways of successfully educating all children with diversity in a common setting. There is an emerging consensus that children with special needs be included in the educational arrangement set for the 'normal' children. This has led to the idea of inclusive schooling, which involves the act of modifying the regular school environment, classrooms, teaching style and methods befitting all learners in an inclusive setting (Brenda & Brian, 2006). To promote inclusion of people with disabilities, an array of social policies and programs working coherently to respond and support the person with disability across their lifespan especially at school level is required (Brenda & Brian, 2006).

A joint publication between the National Disability Authority (NDA) and the Equality Authority (EA) provides an important opportunity to examine in detail the influence of social inclusion in Ireland and to examine how that impact changes over time (National

Disability Authority, 2005). Specifically the study allows us to better understand the experience of disability over time in the areas of education and social participation in regards to academic performance of learners with HI. By examining this dynamic we can better plan policy and program interventions to promote education and how and when to intervene to prevent exclusion of learners with disability (National Disability Authority, 2005).

Hearing impairment (HI) is a general term which is used to describe disordered hearing. Deafness and hard of hearing are the widely known two categories of hearing impairment. Deaf individuals are those whose sense of hearing is nonfunctional for processing linguistic information through audition with or without amplification (Gargiulo, 2012). The author describes learners who are hard of hearing as those individuals in whom the sense of hearing although defective, is functional either with or without a hearing aid (Gargiulo, 2012). For learners who are hard of hearing, the use of hearing aids is necessary or desirable to enhance residual hearing. A Minimum Hearing Loss (MHL) is a condition where there is difficulty in hearing spoken language at a distance or in the presence of background noise (Kuder, 2003). A study carried out by Omondi, Ogot, Otieno and Macharia (2007) showed that between 2.3 and 5.6% of school-going children in Kenya are hearing impaired.

Inclusive education of learners with hearing impairment refers to the educational process that wishes to extend to the maximum the opportunity of deaf and hard of hearing learners to attend regular classroom in regular schools within their locality.

It involves the provision of necessary special education services under the responsibility and management of the classroom teacher (Gargiulo, 2012). It would therefore call for special attention by special education teachers to manage such educational settings. United Nations Convention on the rights of people with disabilities (2008) reports that Australia has joined other nations in a global effort to enhance equal and active participation of persons with special needs. Convention also states that persons with disability should be guaranteed the right to inclusive education at all levels, regardless of age, gender, color etc. and on the basis of equal opportunity. Inclusive education is therefore a process that involves the transformation of schools and other centers of learning to cater for all children with or without disabilities.

Social interaction influences inclusivity of people, learners and communities to coexist, share and develop understanding of one another. In a school environment, it promotes learners with disabilities especially learners with HI to enroll in public schools around their homes for a better academic performance. This will put them at par with their hearing peers for competitive educational standards and job market. Hearing impairment usually affects children in several ways, such as delayed development of receptive and expressive language skills, delay in general language acquisition, lack of self-esteem and self-actualization (*(<http://www.hearinglossweb.com/olderb.htm> retrieved on December 17, 2017)*). Frequent intermingling of learners with HI and their hearing peers may narrow the gap of isolation, language acquisition and improvement of receptive and expressive language to better their self-esteem and self-actualization.

A study in the United States of America by McVilly (2004), reported that learners with hearing impairment often lack friends and experience a lot of loneliness as a result of communication barrier. Good academic results have generally been observed in learners with hearing impairment who are mainstreamed, but they also show higher degrees of isolation and psychological problems due to limited communication (Gravenstede, 2009). This implies that even in the developed countries, learners with hearing impairment are still bound to face some challenges. Shakesphere (2006), cited in Farrell (2009) affirms that even in the most accessible world, there will always be residual disadvantage attached to many impairments.

Various reports and studies confirm that the current education system has not managed to adequately respond to the needs of the vulnerable groups, specifically those with disabilities. There are equity gaps in access in terms of physical and curriculum access as well as in educational outcomes due to pervasive challenges in creating attractive learning and teaching conditions.

Embakasi Sub-County has learners from varied social and economic status. Most schools may suffer enrolment crisis as a result of parents of hearing learners withdrawing their children from these public schools because of inclusion of learners with disabilities. Some of them may not be comfortable seeing learners with disabilities learning together with their children in public schools.

The claim of poor standards of education, low pace of content coverage, the thought of disabilities being congenital and many other allegations crop up. Despite all these, it is

advantageous for learners with HI to learn together with their peers with hearing to interact and learn from one another. It enables them to improve on their hearing ability, spoken language, vocabulary, self-esteem and self-actualization (Wamocho, 2003).

### **1.2 Statement of the Problem**

Learners with HI usually feel withdrawn due to communication barrier. Such withdrawal leads to isolation and limits socialization which is key in boosting self-esteem, confidence and actualization to promote academic performance of learners with HI in an inclusive setting. Socialization of learners with HI in public schools should be encouraged in order to make learners with disabilities comfortable, relevant and at par with their peers in these schools. Socialization, self-esteem and self-actualization are some of the benefits that are brought about through inclusive education (Wamocho, 2003). Boosters of socialization are paramount in doing away with special schools which promote segregation, isolation and disintegration of those with disabilities. It therefore influenced the researcher to carry out a study on virtues of socialization on academic performance of learners with hearing impairment in Thawabu inclusive school to help them improve academic performance.

### **1.3 Purpose of the Study**

The purpose of this study was to determine virtues of socialization on academic performance of learners with hearing impairment at Thawabu Inclusive Public Primary School in Embakasi Sub-County, Nairobi City County, Kenya.

#### **1.4 Objectives of the Study**

The study sought to:

- i) Determine modes of communication that promote socialization of learners with HI and hearing learners, to enhance academic performance in Thawabu Inclusive Public School in Embakasi, Nairobi City County.
- ii) Assess strategies for boosting socialization among hearing impaired learners and hearing peers to enhance their academic performance in Thawabu inclusive public school in Embakasi, Nairobi City County.
- iii) Establish challenges facing teachers in enhancing socialization to improve academic performance of learners with HI in Thawabu inclusive public primary school.

#### **1.5 Research Questions**

- i) What are the modes of communication that promote socialization between learners with HI and hearing peers for enhancement of academic performance in Thawabu inclusive public school?
- ii) What strategies are used to influence social interaction among learners with HI and their peers at Thawabu inclusive public school in Embakasi, Nairobi City County?
- iii) What are the challenges facing teachers in enhancing social interaction and academic performance of learners with HI in Thawabu public primary school?

## **1.6 Significance of the Study**

The present state of inclusion of learners with HI in public primary schools in Kenya is wanting. The nature of psychological and educational services planned for students with special needs still leaves a lot to be desired. Hard of hearing learners who need hearing aids to boost their hearing cannot access them. The findings of this study may help to promote attitudinal, psychological and educational change in all stakeholders for inclusive education to be a success and meaningful to learners with hearing impairment. Inclusive education may make learners with hearing impairment gain confidence; boost their self-esteem, self-actualization and love for school which in the end gives birth to academic and social benefit.

## **1.7 Limitations and Delimitation of the Study**

### **1.7.1 Limitations of the Study**

The study dealt with one category of hearing impairment, 'hard of hearing'. The study limited itself mainly to inclusive education and emerging issues from the school environment. Only one school was selected due to absence of inclusive set up or unit for learners with hearing impairment in the other schools within the sub-county.

### **1.7.2 Delimitation of the Study**

The study was carried out in Thawabu primary school in Embakasi, Nairobi City County. The study adopted both qualitative and quantitative techniques in gathering data in the chosen school in Embakasi, Nairobi City County. The school was chosen because it had learners with hearing impairment in regular classrooms and in units. The school was the

only regular public primary school with learners with hearing impairment in Embakasi sub-county.

### **1.8 Assumption of the Study**

The researcher assumes that learners with hearing impairment were undergoing inclusive education in the selected school of study. The respondents would participate willingly in the study. The findings of the study would promote inclusive education for learners with hearing impairment in the County of Nairobi.

### **1.9 Theoretical and Conceptual Framework**

#### **1.9.1 Theoretical Framework**

This study was based on Vygotsky's (1986) socio-cultural theory of development which focuses on language, social and cultural impact on a child's cognitive development. Vygotsky's (1986) theory points out that language, culture as well as social interaction affect each other and also influence cognitive development. This implies that all children including those with hearing impairment can be best educated in their natural surroundings, that is, their native community and a language must be developed to address them in order for learning to take place. Learners with hearing impairment should therefore be allowed to learn in the public schools within their communities because this is their most familiar environment where they could be best understood.

Schools do not exist in a vacuum. They exist in different societies with different cultures. Since different cultures stress different things and they produce individuals who differ in their way of thinking, educating learners with hearing impairment away from their

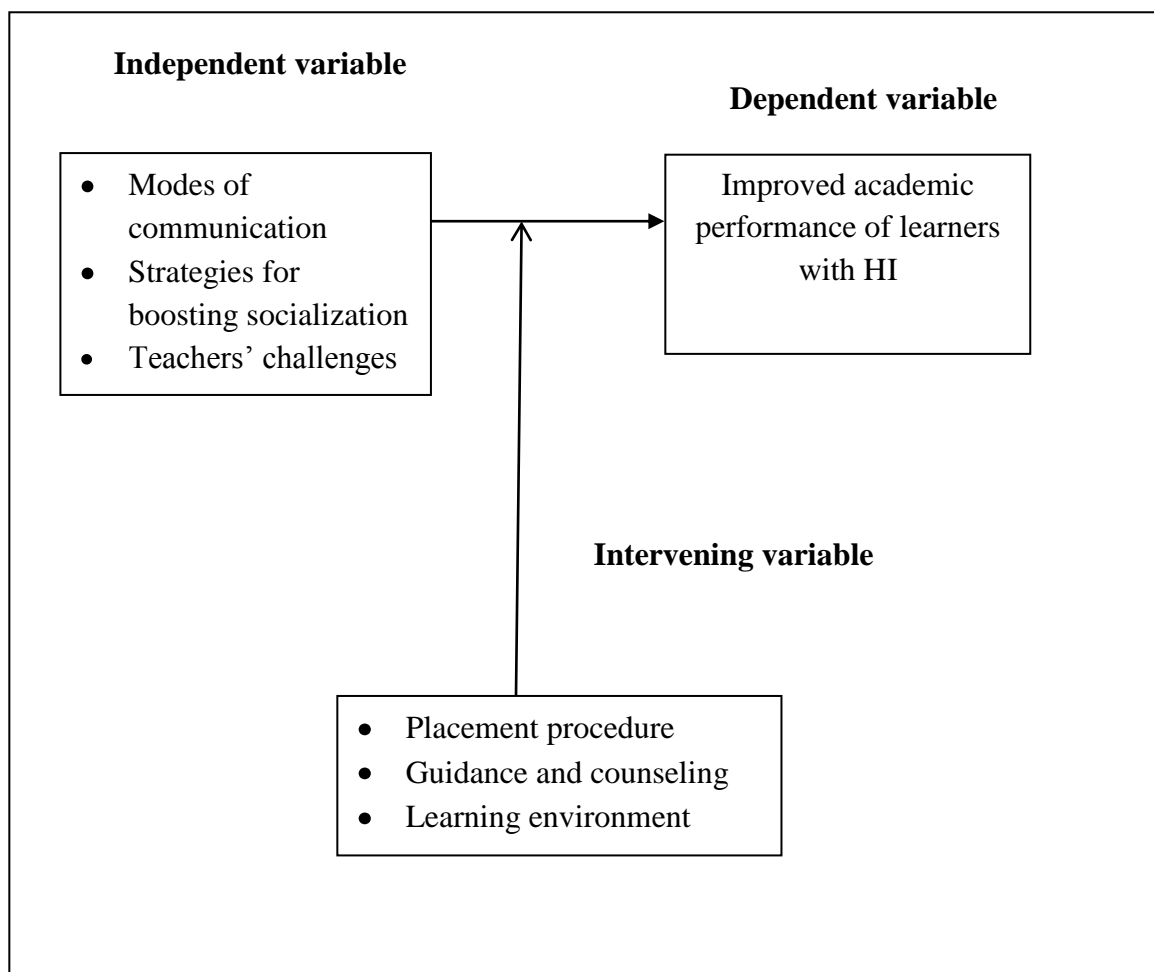
cultural society will interfere with their social integration later on in life, especially after school.

The socio-cultural theory focuses on the child as a product of social situation, and is between the teacher and the learner, before the child internalizes the concept. This theory recognizes that the social world mediates children's cognitive development. It highlights active participation as one of the components of the theory in facilitating dialogue hence ideas are exchanged, leading to advanced cognitive development. Such dialogue helps in molding the child. This implies that learning is not a direct result of activity. Other people should interact with the learner and use various mediatory tools to facilitate the learning process for cognitive development to occur. In further support to social interaction as a crucial element in learning, Vygotsky (1986) argues that in a supportive, interactive environment the learner is in a much better position to advance his/her knowledge and performance to a higher level than he/she could have not done independently.

Teachers in an inclusive set up can device various tools to assist learners to complete various classroom tasks in order to enhance learning as well as cognitive development. Basically, the secret of effective learning depends on the nature of the social interaction between two or more people with different levels of skills and knowledge. The role of the one with the most knowledge, usually a teacher, is to develop ways of helping the other to learn.

Vygotsky (1986) also states that cognitive development cannot be separated from its social context. This kind of context is where the learner can interact with others and use the new tools to learn. This idea implies that the learning environment must be authentic. An environment with people who use tools like language, symbols, and concepts, among others to a deaf learner is referred to as the Least Restrictive Environment (LRE).

### 1.9.2 Conceptual Framework



**Figure 1.1: Relationship between socialization of learners with HI and hearing peers**

**Source:** Researcher's own model 2020

Figure 1.1 shows the connectedness of socialization through modes of communication among learners with HI and their hearing peers in an inclusive setting for improved performance in education. Socialization among learners promotes sharing of ideas, skills and knowledge, hence improved academic performance. It equally lifts self-esteem, self-actualization and confidence amongst learners with HI. Correct placement, guidance and counseling and improved learning environment are key motivators in making these two different sets of learners to understand one another and treat themselves as equals in any given environment.

### **1.10 Operational Definition of Terms and Concepts**

**Assessment:** Gathering and weighing information for the purpose of making decisions based on our judgment and conclusion (Ndani & Murugami, 2009).

**Deaf:** Sense of hearing is nonfunctional for processing linguistic information through audition with or without amplification (Gargiulo, 2012).

**Hard of hearing:** Individuals in whom the sense of hearing although defective, is functional either with or without a hearing aid (Galgiulo, 2012).

**Disability:** Functional limitations that hamper functioning of a part or parts of the body (Ndani & Murugami, 2009).

**IEP:** A written plan that describes what the teacher and other professionals will do to meet special needs of a learner (Republic of Kenya Teachers' training manual, 2019).

**Multidisciplinary team:** A team of professionals from several disciplines, each of whom usually performs his/her assessments, interventions and other tasks independent of other (Gargiulo, 2012).

**Oralism:** Oralism considers aural (listening) and oral (speaking) mode to be the primary mode of communication.

**Total communication:** A philosophy of educating learners with hearing impairment that incorporates all means of communication

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

In this chapter, studies from various researchers and educationists on inclusive education for learners with hearing impairment were reviewed. They included; modes of communication for social interaction to learners with hearing impairment in public schools, strategies that influence social interaction on learners with hearing impairment, resources that promote social interaction of learners with hearing impairment and challenges facing teachers in enhancing social interaction to influence academic performance of learners with hearing impairment.

#### **2.1 Modes of Communication for Learners with Hearing Impairment**

Communication is the use of a suitable language to convey and decode ideas, knowledge, opinion or feelings (Gargiullo, 2012). It also involves the exchange of views, demonstration of skills or explanation of processes. The most difficult situation in communication is that when a child is born with a hearing impairment, depending on the severity of the hearing problem, normal language acquisition is disrupted (Gargiullo, 2012). In such a situation, there would be delay in speech and language development in the learner; this needs early detection for early intervention. Once early interventions are instituted, the learners with hearing impairment would be able to develop language which facilitates socialization in school.

Ademokoya (2008) confirms that speech is the most conventional and commonly used form of communication in any human settlement. He further points out that unfortunately, this is the greatest potential which hearing loss deprives a child. Speech provides the best medium for any communication, including learning. For inclusive education to take root and be effective, all the modes of communication; oral-aural, manualism, total communication and bilingual-bicultural should be used by both the teachers and learners with and without impairment in the school environment to aid communication. If this is done, learners with HI would be very comfortable with their hearing peers and this would equally promote self-esteem and actualization of themselves and ease communication barriers. Farrell (2009) supports this when he emphasizes on the social model by pointing out that disability is removable by social change, which can minimize the effect of any impairment. It will therefore enhance social interaction among learners with or without hearing impairment.

Farrell (2009) cites an example of barrier removal in relation to people with HI in one of the historical study cited by Groce (1985) of Martha's Vineyard, Massachusetts, an island of the eastern coast of the United States. Hereditary deafness was common in this isolated community and residents developed a dialect of sign language known as Martha's Vineyard Sign Language. It was estimated that by the late 1800s, around 0.7% of the residents were born deaf, nearly 20 times the national average. The sign language is reported to have been commonly used by hearing residents until the mid-1900s, enabling deaf residents to be more included in the society.

As deaf people could communicate with all their neighbours, it has been suggested they experienced no disabling barriers and their hearing impairment was not a problem.

According to Peel (2004), the oral-aural approach to the education of learners with HI emphasizes auditory skills and aims at teaching them to speak so that they are able to communicate with the hearing counterparts. It teaches learners with deafness how to develop listening skills through speech and language therapy that focuses on residual hearing using assistive devices. All learners should be given the choice to learn sign language which would then allow their mobility across both hearing and deaf communities (Peel, 2004). This study seeks to determine social interaction and its influence on academic performance of learners with hearing impairments in an inclusive school at Thawabu Primary School.

## **2.2 Strategies of Social Interaction of Learners with Hearing Impairment**

Relationship is the most powerful elements within the learning environment that forms the basis for social contact in which learning takes place (Liberante, 2012). This cannot happen in isolation if learners do not learn and cooperate in a normal school setting where they interact freely among themselves and their teachers. Stakeholders play a crucial role in bridging this relationship between learners with HI and peers in public schools. For learners with HI to be retained in public primary schools, they must have comfort through social interaction with both teachers and peers through effective communication.

According to Wanjiku (2014), in her study on “barriers to successful implementation of inclusive education for learners with HI in public day primary schools in Murang'a County, Kenya”, the major factors hindering the implementation of inclusive education was lack of funds to cater for school management and development, lack of trained teachers in special needs education in the area of hearing impairments, and teachers' /parents' attitude towards inclusive education. Regarding the adjustments of systems to accommodate learners with HI, the study established that only minimal adjustments were made in the schools hence making learning for learners with hearing impairment unfavorable. The study also revealed that there was inadequacy of resources both in Educational Assessment Resource Centre (EARC) and schools, therefore inappropriate assessment of learners with hearing impairment could occur leading to wrong placement. The study also established that there was minimal collaboration from the stakeholders and majority of them preferred learners with hearing impairment to be placed in special schools.

A study by Imbiti (2013) on the strategies used in implementation of Kenya sign language by teachers in primary school for learners with HI in western region found that teachers employed discussion, dramatization, demonstration, story-telling, project as well as question and answer method. These strategies are deemed important for the current study for promotion of socialization through collaboration, cooperation and team work in an inclusive school of Thawabu. Imbiti (2013) investigated strategies in relation to teaching method, facilities and resources used in implementation of Kenyan sign language as a medium of instruction. The study targeted 94 teachers and 6 principals who

were purposively sampled. A sample size of 30 respondents was used by the researcher to collect data using questionnaires and observation schedule.

Raga (2014) in her study on instructional resources used to address the language discrepancies in Kuja secondary school for the Deaf, reported that teachers used traditional teaching approaches in the classroom; visually signed sentences in spoken language pattern and unite word and sentence to students. These approaches do not reflect the actual signed word during instruction.

In a classroom situation, learners need to ask and answer questions in order to contribute to the learning and understanding of the subject content. Similarly, learners need to share the learnt knowledge with their peers to help synchronize the subject content through discussion. This calls for closeness, collaboration, team work, confidence and respect amongst learners with hearing impairment, their peers, teachers and parents through inclusiveness. If it is well rooted, nurtured and maintained in both classroom and social settings for learners with HI, they can improve their educational performance for a brighter future. Students who had positive teacher relationships demonstrated positive adaptation to school regardless of their gender or grade level, across the elementary age range (Baker, 2006). This may not be realized unless socialization is enhanced to mitigate the differences.

### **2.3 Challenges Facing Teachers of Learners with Hearing Impairments in an Inclusive Setting**

A teacher of a learner with hearing impairment should be qualified and conversant with the language, skills and knowledge required to provide quality education to these learners in mainstream settings. According to Asif (2008), regular class teachers need induction training to handle learners with hearing impairment in an inclusive setting.

Trained teachers in special needs education develop more positive attitude towards learners with diverse abilities in an inclusive setting including those with unique needs. This is contrary to what has been established by some studies from various fields.

Ndege (2010) carried out a study on factors which influence the academic performance of students in day secondary schools in Borabu District. His findings were that schools' poor infrastructure, teacher's level of training and the manner in which a teacher presents a subject greatly influences students' attitudes towards that subject. Teacher's' attitude towards the learner should be good and encourage development of self-image, to reduce anxiety. He also found that, "when a teacher is overloaded, he tends to follow the way of least resistance". He does not emphasize learning and cannot cater for individual differences since he has no spare time. He may not make use of teaching aids or make/prepare them.

Teachers in an inclusive setting are sometimes faced with role problems. These are sometimes experienced as they move from a general classroom to an inclusive set up. As Billingsley (2005), highlights, special educators experience numerous role problems that

include role ambiguity (lacking necessary information to do their work), role conflict (being asked to do contradicting things) and role overload (having more to do than is reasonable).

The teacher's knowledge and attitude plays a major role in learners' performance (Asif, 2008). Unfortunately, most teachers in an inclusive setting are not knowledgeable in diverse needs of their learners including those with HI. Wanjiku (2014) reported lack of trained teachers for learners with HI and negative attitude of teachers and parents towards inclusive education as the barriers of inclusion. A teacher for learners with hearing impairment should therefore be knowledgeable in the area of hearing impairment, its implications, as well as the kind of hearing aids that the learners may use to facilitate their communication. The teacher must learn by reflecting on experiences during communication and interaction with a learner who is deaf and use teaching strategies that increase participation of all learners in the learning process (Asif, 2008).

#### **2.4 Summary of Literature Review**

Various studies have shown gaps that the present study seeks to fill. Imbiti (2013) carried out a study on strategies used in implementing Kenya Sign Language (KSL) by teachers in primary schools in Western region of Kenya but the present study will focus on impact of socialization on learners with HI in Nairobi. Raga (2014) carried out a study on instructional resources used to address the language discrepancies in Kuja secondary school for the Deaf while this study focuses on influence of socialization on academic performance of learners with hearing impairment. Wanjiku (2014), in a study of barriers

to successful implementation of inclusive education for learners with hearing impairment in public day primary schools in Murang'a County while this study is on influence of socialization of learners with hearing impairment. Gaps that are identified include; modes of communication to promote socialization between learners with hearing impairment and hearing peers, to enhance academic performance in Thawabu inclusive public school. The study sought to establish strategies that promote socialization for inclusive education to learners with hearing impairment and challenges facing teachers in their move to enhance socialization for improved academic performance of learners with HI in Thawabu inclusive public school.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.0 Introduction**

This chapter describes the methods that were employed in the fulfillment of the research objectives. It entails the research design, variables, study location, target population, sampling techniques and sample size, piloting, data collection techniques and analysis. Finally, the research instruments, their administration and presentation to establish their validity and reliability were also discussed as well as logistical and ethical considerations.

#### **3.1 Research Design**

The case study research design was adopted in conducting this study. This type of design allowed the researcher to gather information from the respondents in their natural environment.

#### **3.2. Study Variables**

##### **3.2.1 Independent Variable**

The independent variables were modes of communication, strategies for boosting socialization and challenges facing teachers of learners with hearing impairment.

##### **3.2.2 Dependent Variables**

The dependent variable was improved academic performance.

### **3.3 Location of the Study**

The study was conducted in Thawabu inclusive public primary school in Embakasi, Nairobi City County, Kenya. Embakasi has 20 public primary schools but only one has learners with H.I (D.E.O's Embakasi office, 2016). The Sub-County was selected because it has one school with special units and practice inclusion of learners with HI in the mainstream classes.

### **3.4 Target Population**

The study targeted all learners with hearing impairment in Thawabu public primary school in Embakasi, Nairobi City County. The population of the school included; head/teacher, deputy head-teacher, seventeen teachers, nineteen learners with hearing impairment and one thousand and fifty hearing learners. The total enrolment of learners in Thawabu Primary Schools is one thousand and sixty nine (1069). These figures were gotten from Sub-County records (DEO Embakasi, 2016).

### **3.5 Sampling Technique and Sample Size**

#### **3.5.1 Sampling Technique**

The study adopted purposive sampling technique for individual learners with hearing impairment because they were the target for the study. In this form of sampling, the investigator relied on her/his expertise or judgment to select respondents that were representative or typical of the population (Orodho, 2009). Purposive sampling was also used to select the school under study. Simple random sampling technique was used to select hearing learners from class 4-8 (two from each class). The sampling technique was

also used to select teachers who participated in the study. According to Orodho (2009), simple random sampling is a process of selection from a population that provides sample of a given size an equal probability of being selected.

### 3.5.2 Sample Size

The study sample size comprised one (1) school (Thawabu inclusive Public Primary School, one head/teacher, one deputy head/teacher and ten (10) teachers, ten (10) learners with hearing impairment and ten (10) hearing learners, totaling to thirty two (32) respondents (Table 3.1). This number represents more than 20% of the teachers and learners in the selected school in Embakasi, which was adequate to contribute a sample in a study of this nature (Gay, 1992).

**Table 3.1: Target population**

<b>Respondents</b>	<b>TOTAL</b>	<b>SAMPLE</b>
Head-teacher	1	1
Deputy H/T	1	1
Teachers	17	10
Hearing learners	1050	10
Learners with HI	19	10
<b>Total</b>	<b>1088</b>	<b>32</b>

## **3.6 Research Instruments**

### **3.6.1 Questionnaires**

Questionnaires were administered to teachers, learners with hearing impairment and their hearing peers. A five point likert scale questionnaires were used to collect data from both teachers and learners in general. Questionnaires were used because they could collect a large amount of information in a reasonably quick pace of time (Orodho, 2009). Questionnaires ensured confidentiality and information needed was easily narrated (Kombo & Tromp, 2009). A five point likert scale questionnaire were teacher made which were used to gather information from the respondents and were free from biasness.

### **3.6.2 Interview Schedule**

Interview schedule were used to gather detailed information from the head teacher. The interview schedule was chosen and carried out in the head teacher's office because it created an opportunity to develop relationships with the respondent so that the researcher could get the full range and in-depth information from the respondent. The open-ended questions were used to interrogate and un-earth information that questionnaires could not deliver. The interview was to complement data collected from questionnaires.

### **3.6.3 Observation Schedule**

Observation schedule were used by the researcher to get more information on the availability of learning resources used both in classroom and outside classroom to enhance socialization and academic performance of learners with hearing impairment. It was also used to establish the mode of communication used by learners with hearing

impairment as well as the methods that was used to teach them. The observation schedule was preferred as it verified the truth of the statement made by the respondents in the context of questionnaires and interview schedule. The data obtained from the observation schedule was analyzed quantitatively as it justifies the information obtained under this method to what is currently happening on the ground (Cohen, Mahion & Marrison, 2000)

### **3.7 Pilot Study**

Pilot study was conducted in Wangu primary school in Njiru , Nairobi City County. Njiru sub-county neighbours Thawabu and the participants had similar nature of disabilities. The school was selected because it provided an environment and population similar to the population for this study. The population of the pilot study consisted of one (1) school head/teacher, two (2) teachers, five (5) hearing learners and (5)five learners with hearing impairment. These participants were not included in the actual study.

### **3.8 Validity**

Content validity was adopted for the study after piloting was carried out. Unclear directions, cluster questions, and wrong phrasing of questions were opened and cross-checked. Two lecturers in the department of special needs education competent in the area were requested to assess the relevance of the content used in the instruments. Their recommendations were incorporated in the questionnaires and the interview schedules. Ambiguities detected were corrected according to their advice.

### 3.9 Reliability

Reliability was established through test re-test method. This involved administering the same questionnaires at an interval of two weeks to the same group of respondents, and then comparing the two scores. According to Creswell (2003), qualitative data can be made reliable and valid by triangulating different data sources of information by examining evidence from the sources and using it to build justification for themes. The scores of both tests were correlated and reliability established using the Spearman Rank Order Correlation coefficient (Rho) formula.

$$\text{Rho} = \rho = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}$$

Where: P (Rho) is Spearman correlation index;

d is the difference in ranks for a pair of scores;

n is the number of scores within each distribution.

A reliability measure of 0.75 will be established. According to Mugenda and Mugenda (2003), a correlation coefficient greater or equal to 0.75 shows a high reliability of the instruments.

### 3.10 Data Collection Procedure

The researcher was personally involved in carrying out interviews with the head teacher in his office. Face-to-face guiding and prompting questions from interview schedule was used. Filling and collection of questionnaires was conducted in a natural classroom setting, where the researcher observed participants filling and handing over the

questionnaires to ascertain the behavior, participation and response of the respondents. Observation schedule was also employed to ascertain the actual facts on the ground. The researcher assured the respondents that the exercise was to take less than thirty minutes of their time but those who required more time were given.

### **3.11 Data Analysis**

Data was analyzed using descriptive statistical method. Responses from interview schedule were analyzed qualitatively using thematic approach. Quantitative data was analyzed using Statistical Package for Social Sciences program (SPSS). Descriptive statistics such as frequencies and percentages were used to present the data. The researcher established the completion of all the questionnaires. Data from the questionnaires were coded for analysis purposes. This was useful in explaining variable distributions, summarizing and organizing data to make meaning and observe trends.

### **3.12 Logistical and Ethical Considerations**

Permission to conduct the study was obtained from the Dean of Graduate School of Kenyatta University first. The researcher proceeded to Ministry of Research Science and Technology for research permit and the schools involved in the research. Thus participation in the study was voluntary. The researcher assured the head teacher that the school was to be identified using pseudonyms in order to protect the image. The right to privacy demands that direct consent for participation must be obtained from the participants (Orodho, 2004). The researcher assured all the respondents of confidentiality and anonymity. Assurance was given to the effect that the information and data collected

was not to be used for any other purpose other than for the study and that it was to be kept confidentially. Mugenda and Mugenda (2003) posit that lack of confidentiality and mishandling of information provided by the respondents may cause them some physical or psychological harm. Confidentiality and anonymity was addressed before conducting the study. The participants were assured that the information given would not be leaked to any other person and it is only for the purpose of the research. To address the issue of anonymity, the participants were requested not to reveal their names on the research instruments. All the participants were accorded the same treatment and informed on the purpose of the study and how its findings would be used to benefit learners with hearing impairment. According to Mugenda and Mugenda (2003), it is highly unethical for researchers to fail to disclose the real purpose of the study fearing that the respondents may decline to participate in the study.

Consent was obtained from the respondents and the nature of the research explained. The researcher as much as possible encouraged the research subjects to participate in the study. This was achieved through establishing rapport with the respondents through interaction and prior preparation. The researcher engaged the respondents in ways that facilitated dialogue.

## **CHAPTER FOUR**

### **PRESENTATION OF FINDINGS, ANALYSIS AND DISCUSSION**

#### **4.0 Introduction**

The study aimed at finding influence of socialization on academic performance of learners with hearing impairment in Thawabu inclusive public school in Embakasi, Nairobi City County, Kenya. This chapter deals with the presentation, analysis and discussion of findings. Interpretations were made from the analyzed data so that the findings of the study could come out eminently. Discussions of the findings were guided by demographic information and objectives that were set for the study to:

- i. Establish modes of communication promoting socialization between learners with hearing impairment and hearing peers,
- ii. Establish strategies for boosting socialization of learners with hearing impairment and their hearing peers.
- iii. Establish challenges facing teachers in enhancing socialization to improve academic performance of learners with hearing impairment.

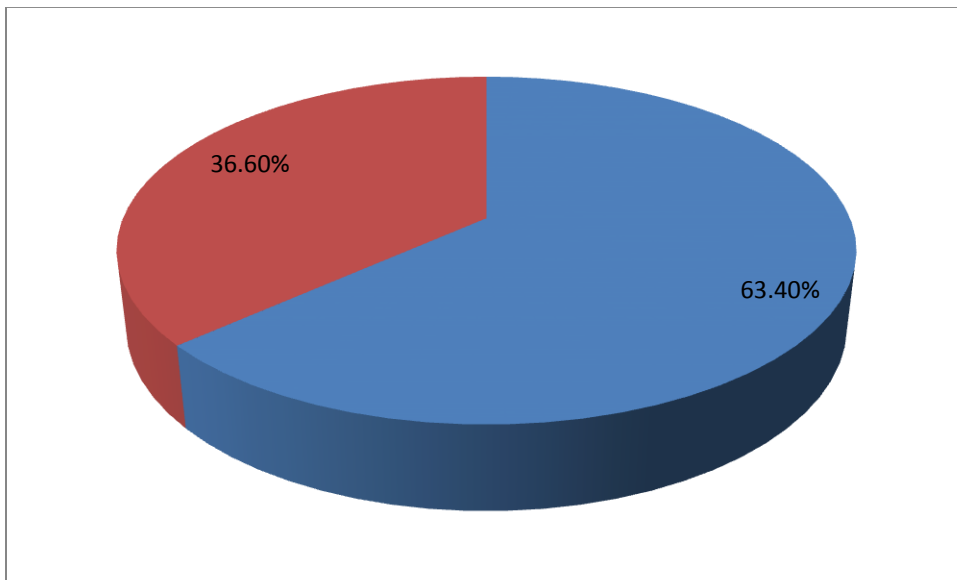
#### **4.1 Demography of Teachers of Learners with Hearing Impairment**

##### **4.1.1 Gender of Teachers of Learners with Hearing Impairment**

In this study, gender of teachers was considered important in determining social integration of learners with hearing impairment, hearing peers and their teachers. Out of 11 teachers in the study, 7 (63.6%) were female while 4 (36.4%) were male. From the

sampling, various proportions of the representation were recorded (Figure 4.1). Gender disparity in favor of females was realized.

This could be an advantage because of the love, empathy and sympathy of such learners by female fraternity. The result also confirms that despite more love, sympathy and empathy of women, a reasonable percentage (36.4) of male teachers of Thawabu inclusive public School are also actively involved. Such a combination equally promotes inclusivity. Inclusion of both learners and teachers should be emphasized at different levels to enhance performance of learners with hearing impairment in public regular schools.



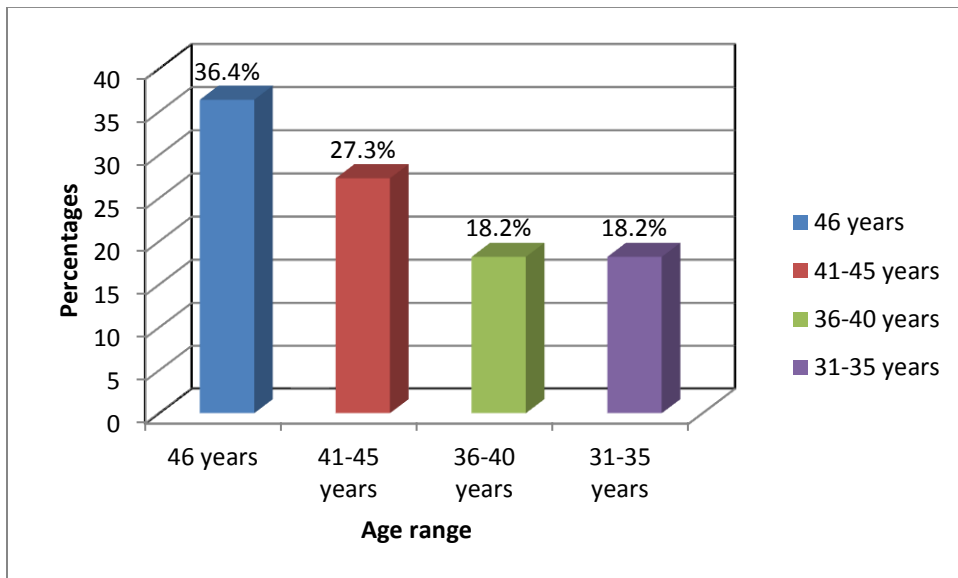
**Figure 4.1: Sex of teachers**

#### **4.1.2 Age of Teachers of Thawabu Inclusive Public School**

The study sought to establish the age of teacher respondents in the study school. It was revealed that 4 (36.4%) were of age 46 years and above, 3 (27.3%) were of age between

41 – 45 years old, 2 (18.2%) were between 36 – 40 years old while the remaining 2 (18.2%) were of age between 31 – 35 years old.

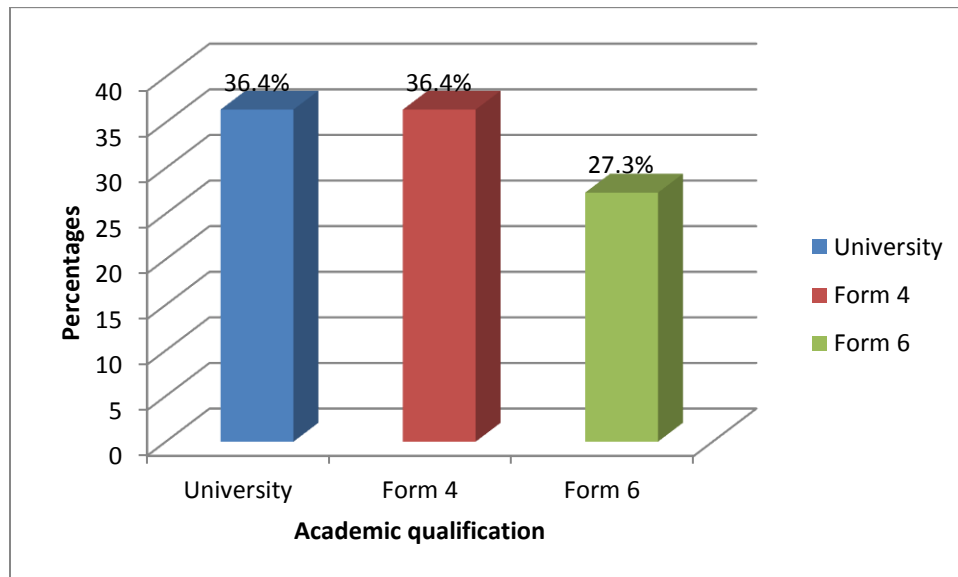
The fact that 36% of teacher respondents were of age 46 and above could be a pointer to the fact that there is a wealth of experience in teaching to promote inclusive education in Thawabu public school. For inclusion to be experienced between boys and girls with hearing impairment and their hearing peers, mutual respect, understanding and use of common language among the learners and teachers must be encouraged (Figure 4.2). This requires wide experience which can only be found in a reasonable age bracket and experienced teachers.



**Figure 4.2: Age of teachers of Thawabu School**

### 4.1.3 Academic Qualification of Teachers at Thawabu Primary School

The highest academic qualification of teachers of Thawabu inclusive public School was university graduates (36.4%), followed by form four (36.4%) while the rest 27.3% were form six school leavers (Figure 4.3).



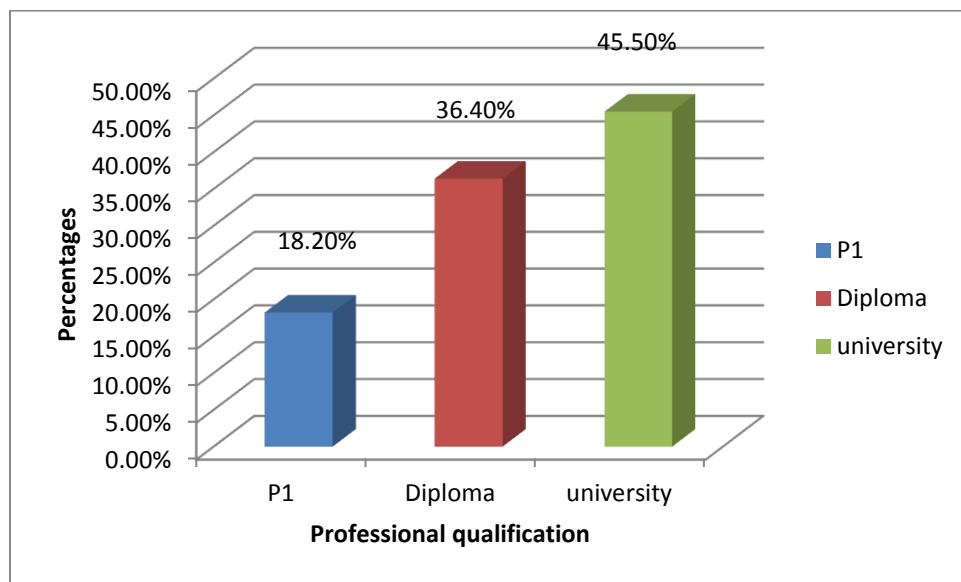
**Figure 4.3: Academic qualifications of teachers**

### 4.1.4 Professional Qualification of Teachers of Thawabu School

A reasonable number of teachers in Thawabu School (45.5%) had Bachelor of Education degrees, (36.4%) were Diploma teachers who had been there for quite some time in their capacity as teachers while (18.2 %) were P1 teachers for learners with hearing impairment and their peers with hearing in Thawabu inclusive Public School (Figure 4.4). Through advancement in educational studies, the current university graduate status had been achieved. The teachers were formerly P1 teachers but underwent professional advancement to teach their current level. The revelation is proof that that these teachers

had passion for helping learners with hearing impairment which provoked their furtherance of inclusive education to enhance the performance of learners with hearing impairment in Thawabu public school.

The finding is supported by Ndege (2010) who reported that teacher's level of professional training determines and influences the academic out-put for academic performance of learners. Good professional qualification outlines in-depth mastery of the subject matter hence quality delivery of subject content. Learners will always relate well with teachers who adequately deliver to boost and improve academic performance.



**Figure 4.4: Professional qualifications of teachers**

#### **4.1.5 Advancement of Professional Qualification**

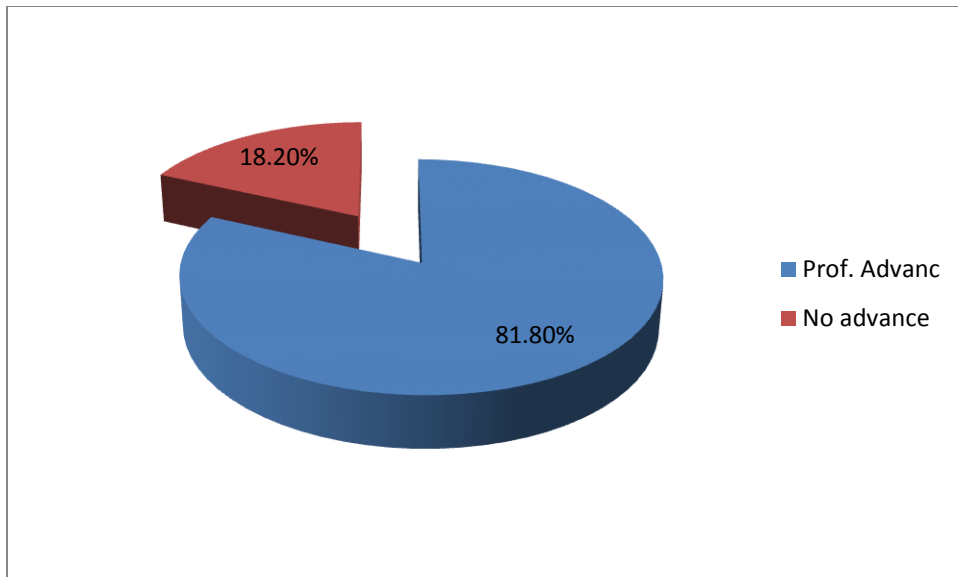
Some teachers at Thawabu were asked whether they had taken initiatives to advance their professional qualification. Out of 10 teachers, (63.3%) had advanced their qualification from P1 to diploma, bachelor and master degrees, (27.3%) failed to respond completely while (9.1%) did not advance their professional qualifications (Figure 4.5). Majority of

respondents who advanced their professional qualifications are some of the teachers with degrees and diplomas in Thawabu inclusive public school.

Initially those teachers were P1 but due to their determination and passion for teaching learners with hearing impairment they chose to further their education. This could be associated with inclusivity of learners with hearing impairment in the school.

Although the numbers of learners with hearing impairment in the school are still low, there is hope that the number will improve should all stakeholders double their effort to advance inclusion. Quite a reasonable percentage (27.3%) of teacher respondents did not give their views in regards to this question of professional advancement. Those could be contented teachers with less or no faith in inclusive education of learners with hearing impairment. Attention to inclusive education of children with hearing impairment and other nature of disabilities should be given priority in that school.

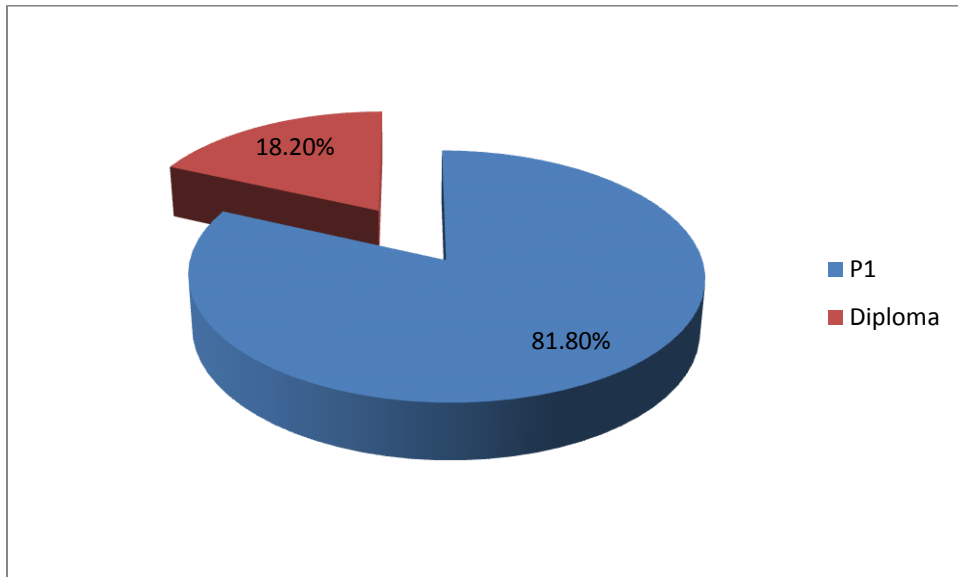
The finding supports that of Ayiela (2012) who found that the gap which existed between children with disabilities in decades caused disparity hence rendered them helpless and useless was diminishing. Inclusion therefore is not only helpful in the improvement social well-being of learners with disabilities but also from being assisted by others to be self-reliant, self-actualized, self-confident and self-esteemed (Wamocho, 2003).



**Figure 4.5: Advancement of professional qualification**

When teachers were asked about their initial professional qualification before advancement, majority of respondents (81.8%) said they were P1 teachers before advancement while 18.2% were Diploma teachers (Figure 4.6). The result showed that majority of teachers initially had P1 grade but were determined to make those with disabilities to be comfortable learning together with their peers in public school by advancing their professional qualification. Unlike before, learners with disabilities were meant to learn in special schools while some were killed or thrown into the bush for wild animals to feed on. The finding was an indicator of improved delivery of education to all individuals in the school settings. The inclusion of learners with hearing impairment in regular classes was a sign of the desire to bring about improvement on socialization between the learners with hearing impairment, the hearing peers and the teachers.

Thawabu inclusive public school creates awareness in valuing children with disabilities as can be witnessed by practicing inclusion of learners with hearing impairment both in regular classes and special unit.



**Figure 4.6: Initial professional training of teachers of Thawabu**

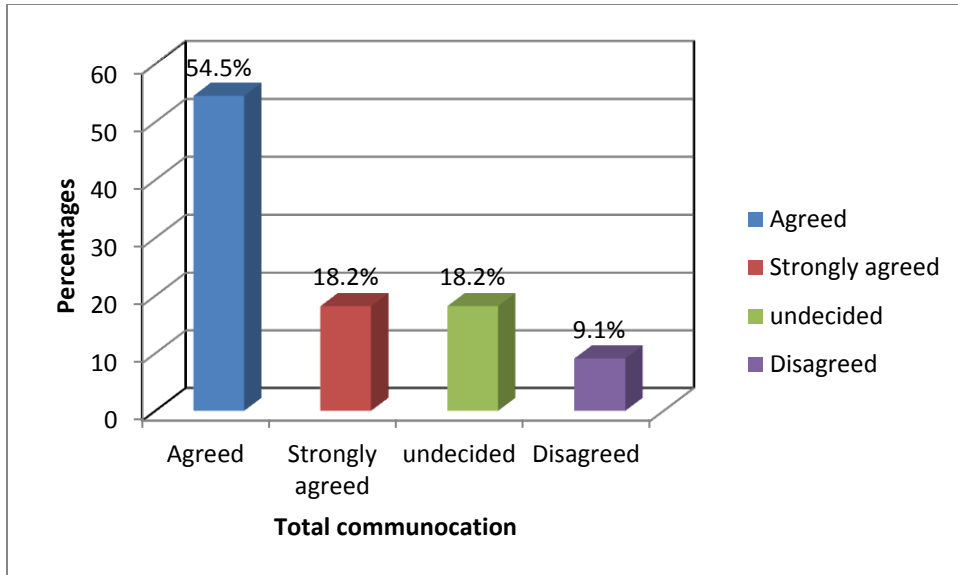
#### **4.2 Modes of Communication Promoting Socialization Between Learners with Hearing Impairment and Hearing Peers**

Objective one of this study sought to examine modes of communication for promoting socialization for academic performance of learners with hearing impairment in an inclusive setting. In doing that, the researcher focused on key thematic areas. They included; total communication between learners with hearing impairment and their hearing peers in the study school, use of Kenya sign language by all learners and teachers, systematic and consistent use of vocalic (paralanguage that includes; volume, rate, pitch and timbre).

The last under this objective is kinesthetic (body language including facial expression). These key thematic areas addressed communicational modes needed for socialization to improve academic achievement as the ultimate goal.

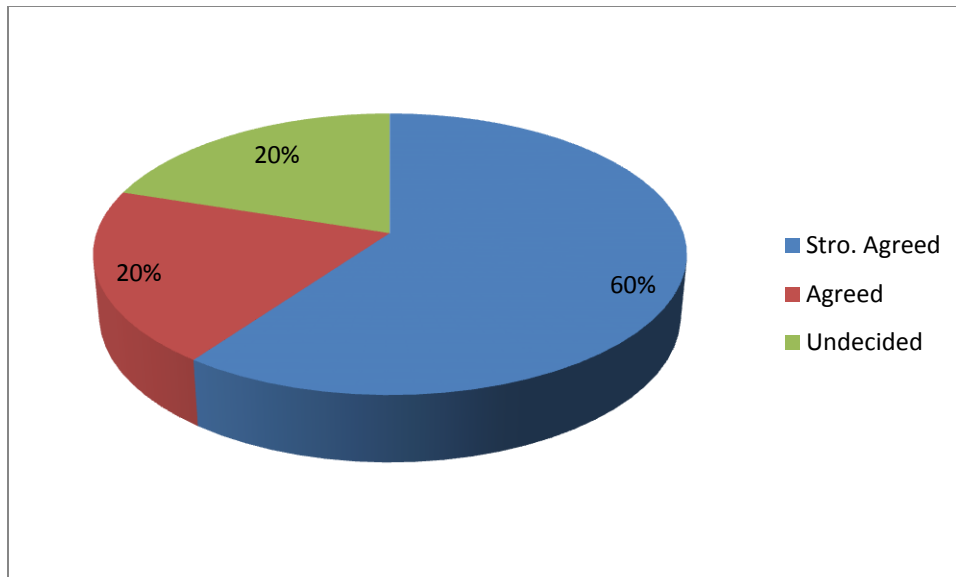
#### **4.2.1 Total Communication for Socialization Between Learners with HI and their Hearing Peers**

A high proportion (54.5%) of respondents were in agreement that total communication can enhance cordial relationship between learners with hearing impairment and their hearing peers to promote academic performance. Two teachers (18.2%) agreed and another (18.2%) were undecided. Only 1(9.1%) disagreed with that question (Figure 4.7a). Responses of learners with hearing impairment were; Majority (60%) strongly agreed, (20%) agreed while (20%) were undecided (Figure 4.7b). Responses on the same question from learners with hearing were; (50%) strongly agreed, (20%) agreed, (20%) disagreed and (10%) strongly disagreed (Figure 4.7 c).



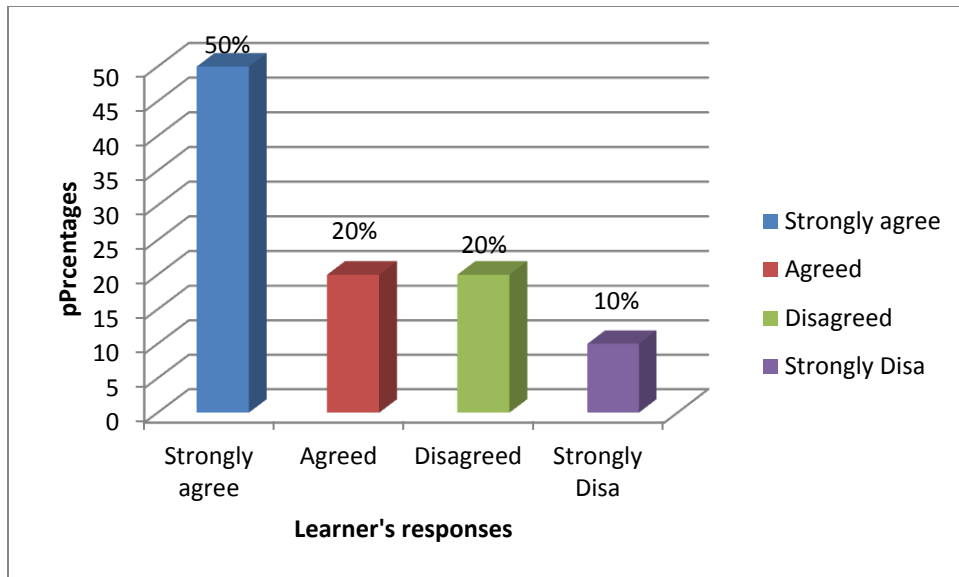
**Figure 4.7 (a): Teachers responses on total communication**

This finding shows that an overwhelmingly high percentage of respondents (80%) were in agreement that usage of total communication amongst learners with hearing impairment in Thawabu inclusive public School promotes socialization which could leads to improved academic performance. Among the teachers, 72.7% it worth noting that quite a good percentage of respondents were not decided and others did not agree. This shows that some members of the school community still believe that inclusion of learners with hearing impairment in mainstream cannot work. They still cling on to stigmatization and isolation of those with hearing impairment due to communication barrier as a curse hence should be separated. Communication breakdown can be limited through total communication to usher in socialization for improved academic performance to all learners.



**Figure 4.7 (b): Learners with hearing impairment responses on total communication**

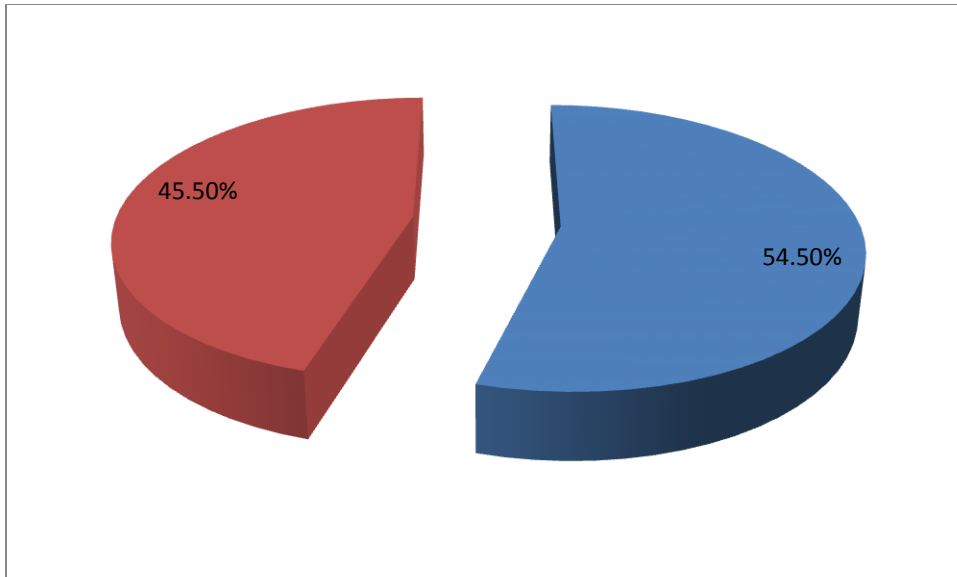
The finding is supported by Farrell (2009) who emphasized on the social model by pointing out that disability is removable by social change, which can minimize the effect of any impairment. It is equally supported by Gargiulo (2012) who reported that communication involves use of a suitable language to convey and decode ideas, knowledge, opinion or feelings to enable an individual contextualize fully the subject content for deeper and high level understanding. Total communication narrows the disability gap to enable learners with hearing impairment socialize both with their hearing peers and their teachers, which enhances mutual understanding for the good of academic improvement of all.



**Figure 4.7(c): Hearing learners responses on total communication responses**

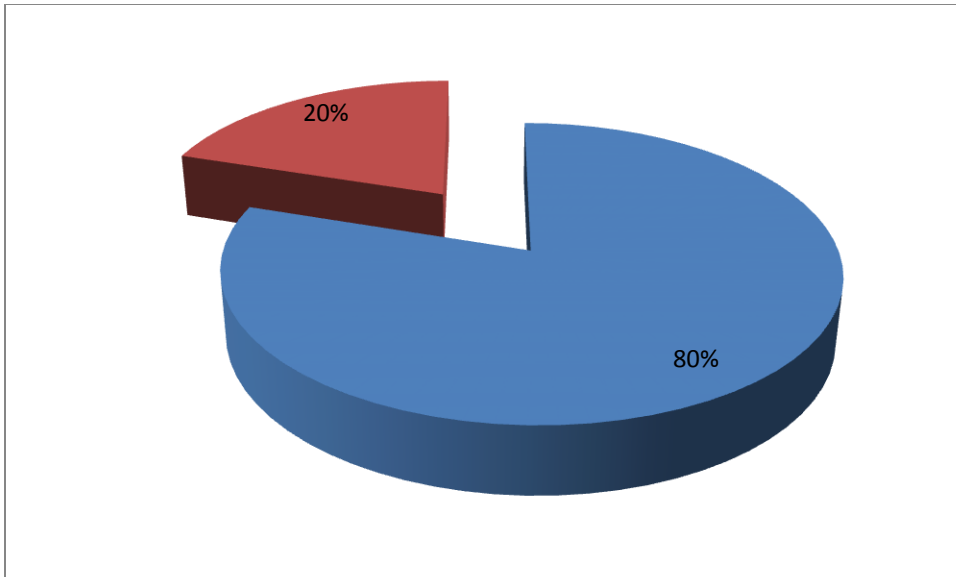
#### **4.2.2 Use and Learning of Sign Language by All in Inclusive School**

When teachers were asked about their views on use and teaching of sign language as a examinable subject in promotion of socialization their responses were; 6 (54.5%) strongly agreed while 5 (45.5%) agreed (Figure 4.8 a). All the teacher respondents were in agreement that use and learning of sign language as any other subject can boost socialization of learners with hearing impairment to enhance their academic performance.



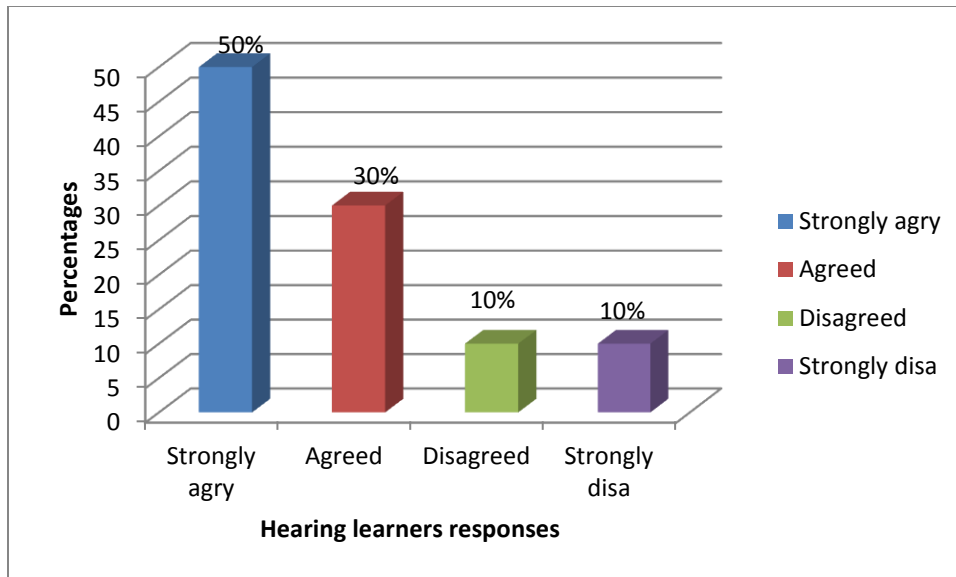
**Figure 4.8 (a): Response of teachers on use of sign language**

When asked whether use and learning of sign language can help boost socialization between learners with hearing impairment and hearing learners responses of learners with hearing impairment shows that (80%) strongly agreed and (20%) agreed. They unanimously agreed that learning and use of Kenya sign language by all learners can boost communication amongst learners and teachers in the schools which in turn creates understanding and cordial relationship to boost performance of learners with hearing impairment (Figure 4.8 b).



**Figure 4.8 (b): Response of learners with HI on sign language**

The findings show that for learners with hearing (50%) strongly agreed, (30%) agreed, (10%) disagreed while (10%) strongly disagreed with the statement (Figure 4.8 c). In short, 80% of learners with hearing were in agreement that learning and use of sign language by all would hasten socialization between individuals with hearing impairment and those with hearing. This could spur learning through sharing of ideas amongst all learners and teachers hence improved academic performance in the inclusive school of Thawabu. On the other hand, those who were of divergent opinion could be are the ones who still holds a view that learners with hearing impairment should learn in special schools.



**Figure 4.8 (c): Response of learners with hearing on sign language**

It was unanimously agreed by majority of respondents that learning and use of sign language improves socialization of both the teaching fraternity and the learners (hearing learners and those with hearing impairment) for cordial relationship which in the end enhances academic performance. Those other responses with divergent opinion could be as a result of failure to see learners with hearing impairment as complete individuals with full right of association and to learn in public schools.

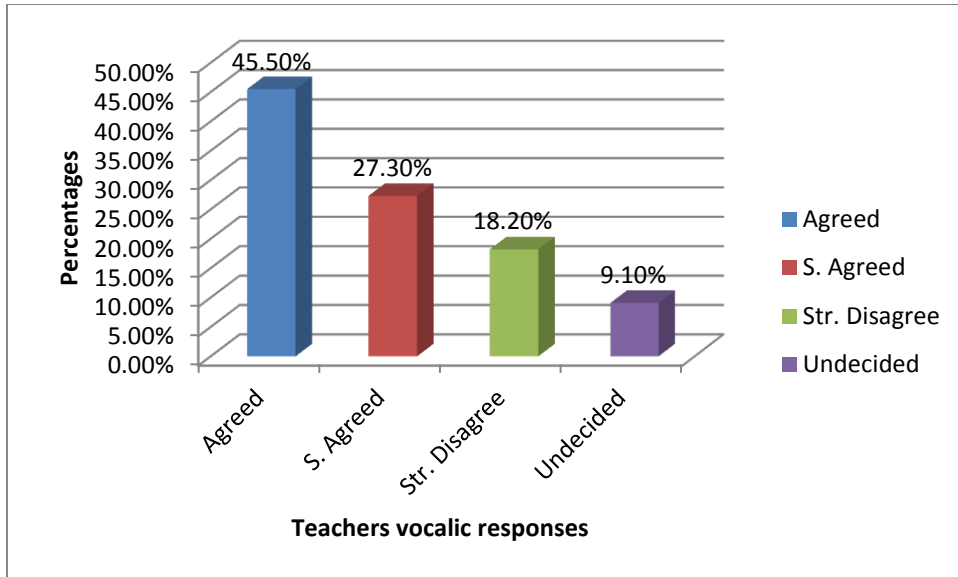
The finding is supported by Farrell (2009) who cited an example of barrier removal condition to people with hearing impairment in one of the historical studies by Martha's Vineyard, Massachusetts. This was an Island of the Eastern Coast of the United States of America where sign language was commonly used by hearing residents (Farrell, 2009). This brought enabling environment for deaf residents and learners to be more comfortable and felt included in the society.

When the level of socialization is high between the teachers and learners as can be witnessed in the findings, understanding equally improves hence good performance is realized. The study is supported by Hallinan (2008) who found that for learning process to be effective, both cognitive and socio-psychological dimensions are to be considered for achievements to be improved. Hallinan further stated that certain teacher traits make some students' like or dislike for school while others stresses the need to value and respect students.

#### **4.2.3 Systematic and Consistent Use of Vocalic**

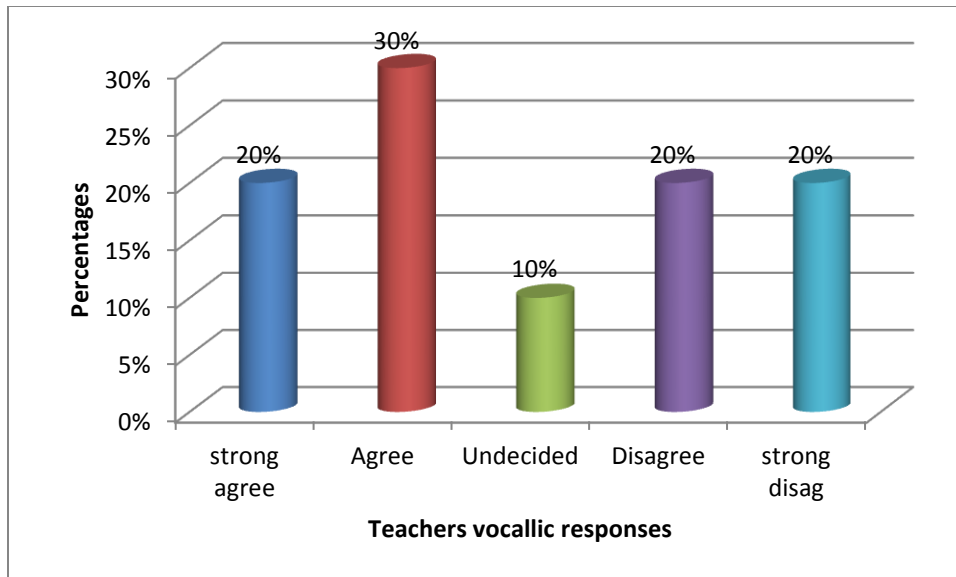
All respondents were asked their views on whether systematic and consistent use of vocalic (paralanguage that includes; volume, rate, pitch and timbre) can improve socialization among learners with hearing impairment, teachers and hearing peers in the inclusive public school of Thawabu.

Out of ten teacher respondents, (27.3%) strongly agreed, (45.5%) agreed, (9.1%) was undecided while (18.2%) strongly disagreed (Figure 4.10a). Overwhelming 72.8 % responses showed that they were pro systematic and consistent use of vocalic in the inclusive school to promote socialization. All ten learners with hearing impairment strongly agreed that systematic and consistent use of vocalic improves socialization among learners and teachers in the school. This is a strong indication of longingness of learners with hearing impairment to freely associate, intermingle, communicate and share their feelings, ideas, emotions and operate at same levels with their hearing peers and teachers of Thawabu inclusive public school.



**Figure 4.9(a): Teachers vocalic responses**

On the other hand, hearing learners' responses did not demonstrate strong support for systematic and consistent use of vocalic, with only (20%) strongly agreed, (30%) agreed, (10%) undecided, (20%) disagreed and (20%) strongly disagreed. The study revealed that 50 percent of the hearing peers of Thawabu inclusive public school have come to terms with the conditions of learners with hearing impairment and are ready and willing to learn and socialize together with them. Forty percent of the respondents are yet to come to terms with their peers with hearing impairment so that they cope up with the conditions of learners with hearing impairment. Besides those who disagreed, 10% were still in dilemma. This could be as a result of struggling to come to terms with communication modes to help them socialize with their peers with hearing impairment (Figure 4.9b).



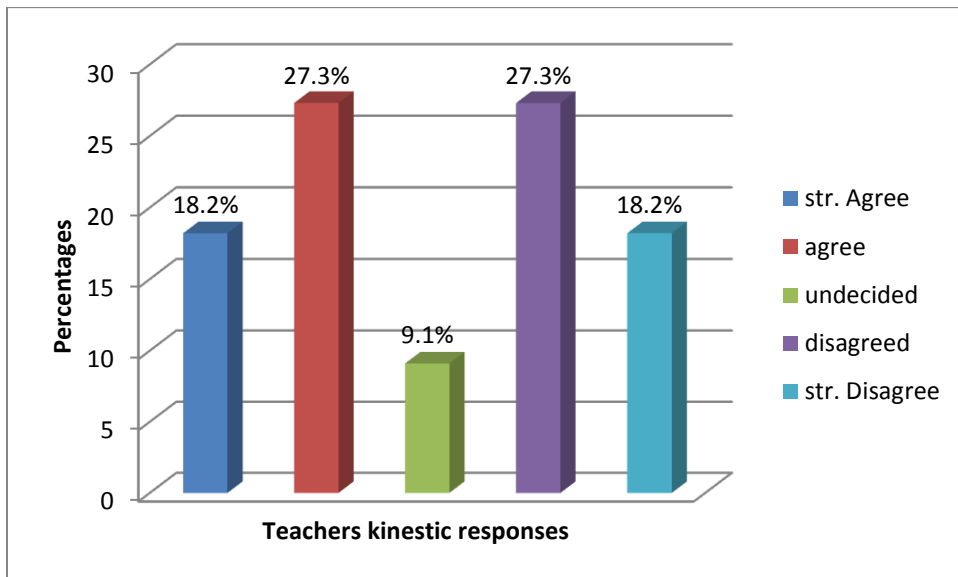
**Figure 4.9 (b): Vocalic responses of hearing learners**

The findings of the study confirms that genuine socialization offers freedom to ask and answer questions, which leads to learning and deep understanding of the concepts of the subject matter. In the presence of learning and understanding there would be room for good performance of learners with hearing impairment and their peers alike. Montalvo, Mansfield and Miller (2007) found that learners with higher level of understanding of the subject matter demonstrate a higher degree of persistence in their teachers' teaching, hence better grades. This would equally show high degree of socialization amongst learners and their teachers to mobilize academic achievement of all learners in the inclusive setting.

#### **4.2.4 Kinesthetic as a Component of Communication**

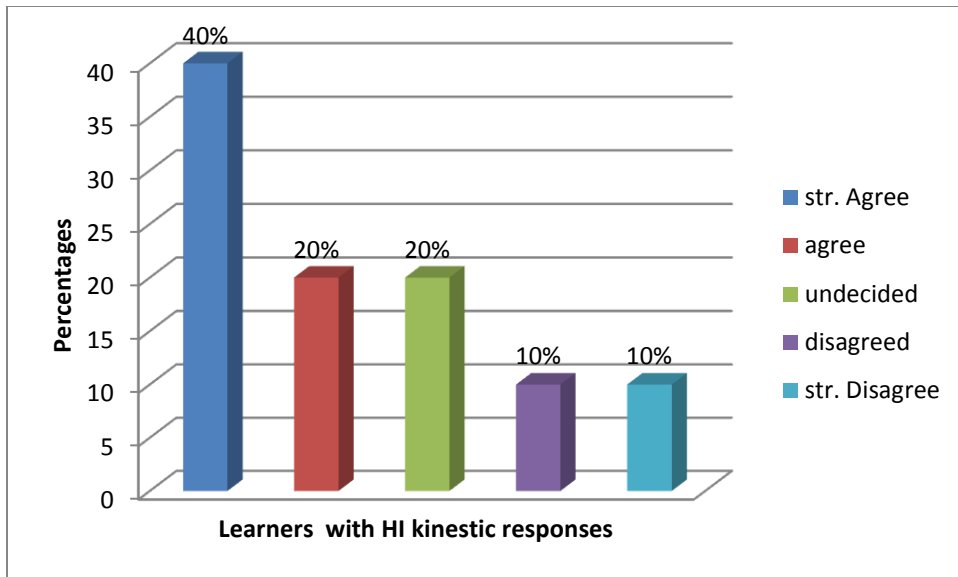
To establish whether kinesthetic (body language including facial) as a component of communication could improve socialization amongst teachers, learners with hearing

impairment and their hearing peers to boost learning in an inclusive school of Thawabu teachers were asked a question. Their responses showed that 18.2% strongly agreed, 27.3% agreed, 9.1% were undecided, 27.3% disagreed and 18.2% strongly disagreed (Figure 4.10a).

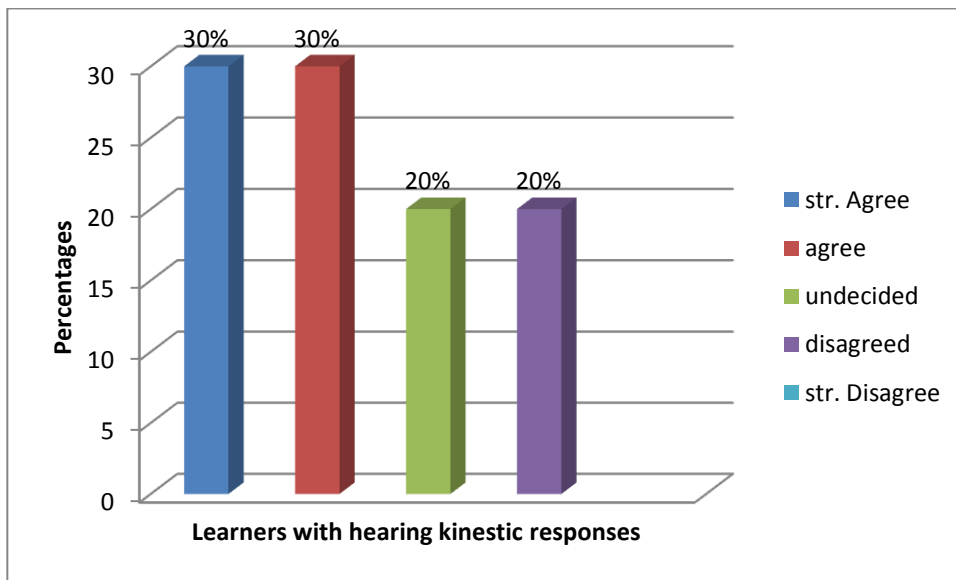


**Figure 4.10(a): Teachers kinesthetic responses**

Responses from learners with hearing impairment indicated that 40% strongly agreed, 20% agreed, 20% were undecided, 10% disagreed and 10% strongly disagreed (Figure 4.10b). Out of 10 learners with hearing's responses also showed that 30% strongly agreed, 30% agreed, 20% were undecided and 20% disagreed (Figure 4.10c).



**Figure 4.10(b): Kinesthetic responses for learners with HI**



**Figure 4.10(c): Kinesthetic responses for learners with hearing**

According to the finding of the study on kinesthetic as a component of communication responses, 45.5% teachers, 60% learners with hearing and 50% of their peers without hearing were in agreement.

Responses indicated that although more than a half of hearing learner respondents were in agreement, more than a half of teachers disagreed with this mode of communication. Therefore, majority of teacher respondents were dissatisfied with this mode of communication could be because it does not offer much to deliver when teaching.

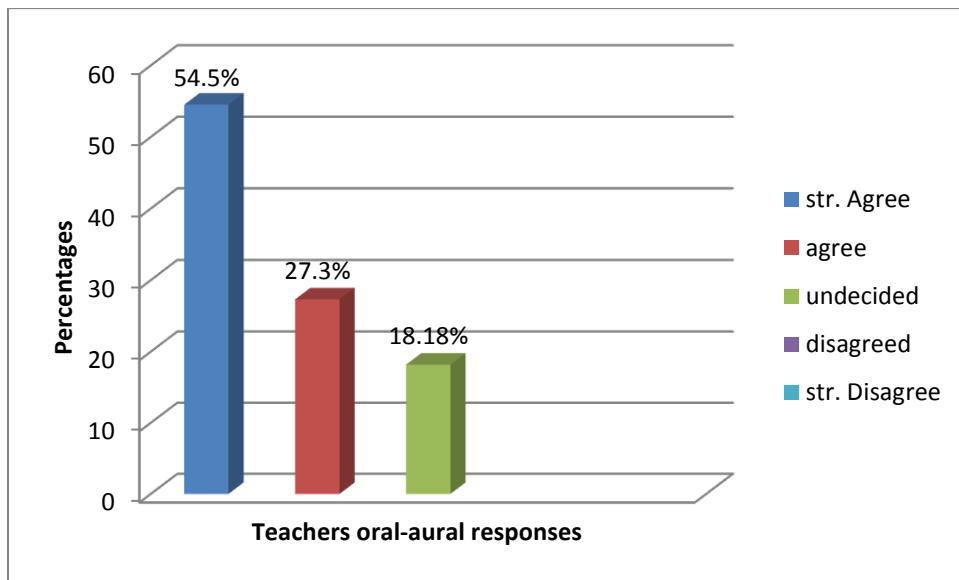
Revelation of the study is supported by Baker (2006) in a finding that the quality of socialization between teachers and learners has significant advantages on academic achievement of learners in an educational system. Education of learners with hearing impairment in Kenya has constantly trailed their hearing counterparts in academic performance as a result of communication barrier.

#### **4.2.5 Oral-aural Approach**

All respondents were asked their views in regards to oral-aural approach as a mode of communication that promotes socialization to enhance academic performance of learners with hearing impairment in Thawabu inclusive school. This involves the use of assistive devices such as hearing aids, augmented sound in classroom environment and other functions involving learners with hearing impairment. Majority (54.5%) of teacher respondents strongly agreed, (27.3%) agreed while (18.18%) disagreed (Figure 4.11a).

Teachers seem to believe so much in assistive devices to augment hearing for learners with hearing impairment to boost academic performance.

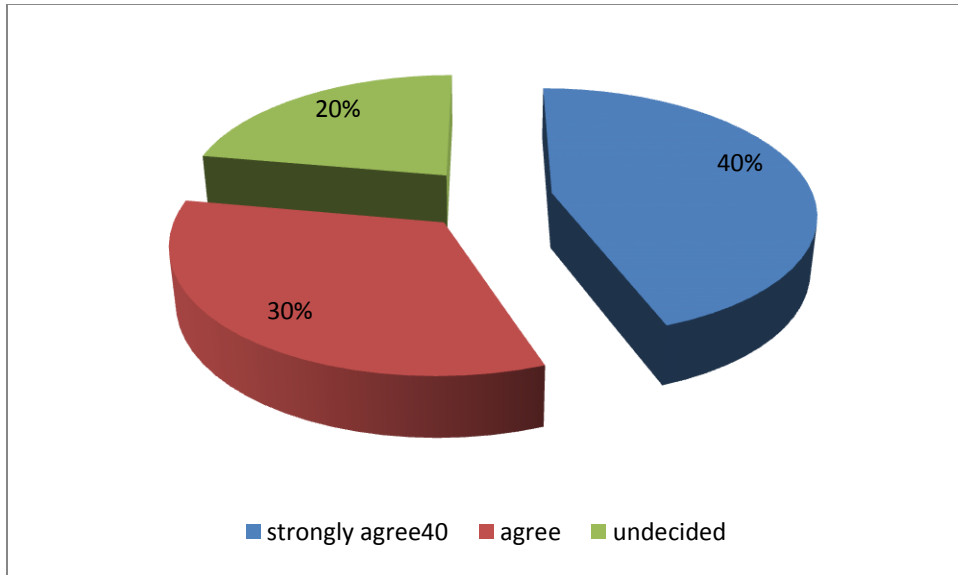
Eighty one point four percent of teacher respondents were in agreement that oral-aural approach would boost academic performance of learners with hearing impairment through enhancement of communication. This would equally improve socialization amongst the learners with hearing impairment, hearing peers and teachers.



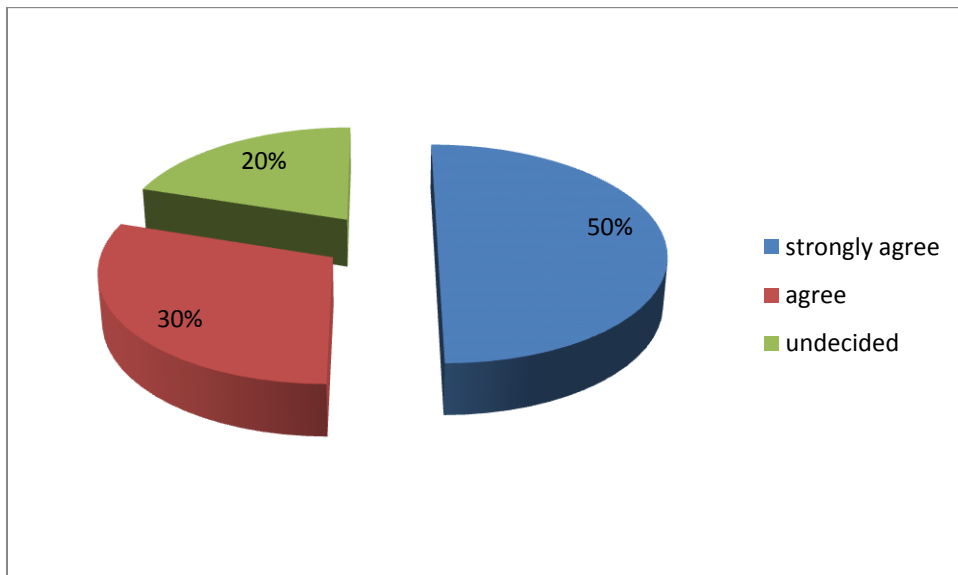
**Figure 4.11(a): Teachers' responses on oral-aural approach**

Learners with hearing impairment and their counterparts with hearing have responded respectively as follows; 40% strongly agreed, 30% agreed, 10% were undecided while 20% disagreed (Figure 4.11b). For hearing learners, 50% strongly agreed, 30% agreed and 20% were undecided (Figure 4.11c). The high percentage 70% and 80% respectively, clearly indicated that learners also believe that oral-aural mode of communication promotes socialization in Thawabu inclusive public school. This creates room for

academic advancement and inclusion of learners with hearing impairment in public school.



**Figure 4.11 (b): Learners with HI responses for oral-aural approach**



**Figure 4.11 (c): Hearing learners responses on oral-aural approach**

The overall result shows that majority of the respondents which include learners with hearing impairment; hearing learners and teachers accepted that oral-aural approach is the ideal mode of communication to spur both socialization and academic growth of learners with hearing impairment in public schools. This shows that hearing promotes language and speech which is a catalyst to socialization.

The finding is supported by Libarente (2012) in a study where it was found that good relationship between teachers and learners is the most powerful element within the learning environment, forms the basis for social contact and promotes learning. Peel (2004) found that oral-aural approach to the education helps learners with hearing impairment to be able to communicate with the hearing counterparts and develop listening skills through speech and language therapy that focuses on residual hearing using assistive devices.

#### **4.3 Strategies for Boosting Socialization in an Inclusive School**

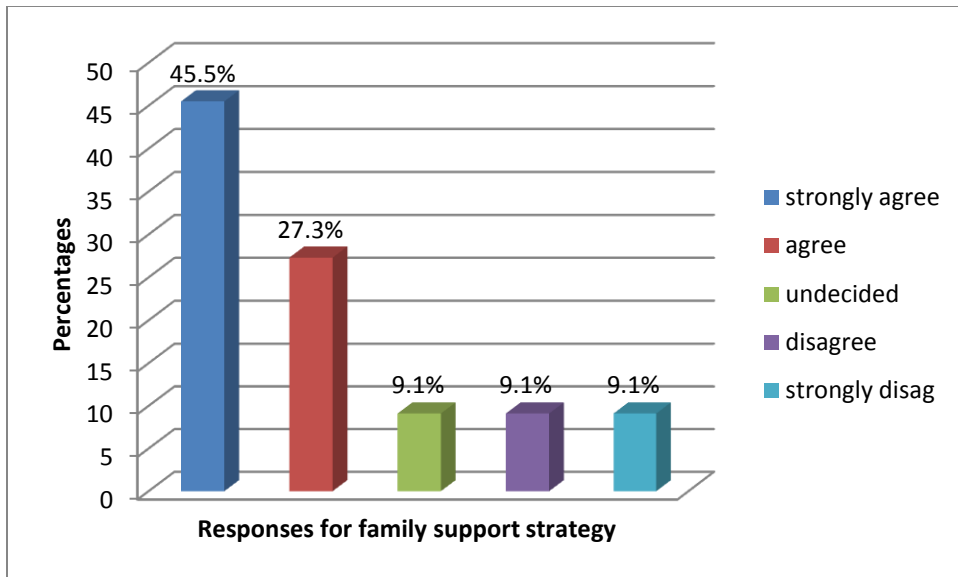
Objective two was to establish strategies for boosting socialization of learners with hearing impairment and their peers with hearing in an inclusive school setting. The objective was tackled under the following sub-headings; family support program (assisting families and children in language learning), family-infant-toddler program (organized activities to foster language and socio-emotional development), administration, research and development. Last sub-topic is a component focus on materials and resource for development strategies for boosting socialization.

### **4.3.1 Family Support Program Strategy**

The study population comprising of teachers, learners with hearing impairment and their hearing peers were asked to state whether family support program strategy can be used to enhance socialization of learners with hearing impairment.

Teachers responses show (45.5%) strongly agreed, (27.3%) agreed, (9.1%) undecided, (9.1%) disagreed and (9.1%) strongly disagreed (Figure 4.12a). Assisting children and families in language learning was found to be a very important aspect in socialization to aid learners with hearing impairment. The role of attitudinal, behavioral, emotional, language and speech is key to academic up-bringing of learners in general but more so to learners with hearing impairment.

The study finding shows that a significant proportion of teachers of learners with hearing impairment (72.8%), was in agreement that family support program lift socialization of learners with hearing impairment in an inclusive public school. The end result is that it enhances learning geared to boosting academic performance of learners with hearing impairment via ability to attend discussion, use good language and speech during class and group discussion.

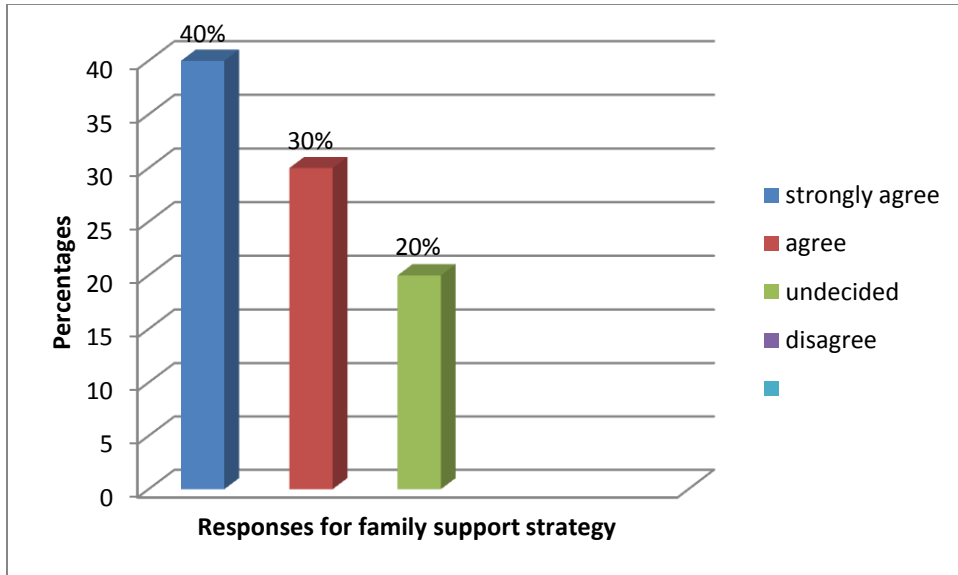


**Figure 4.12 (a): Family support program strategy**

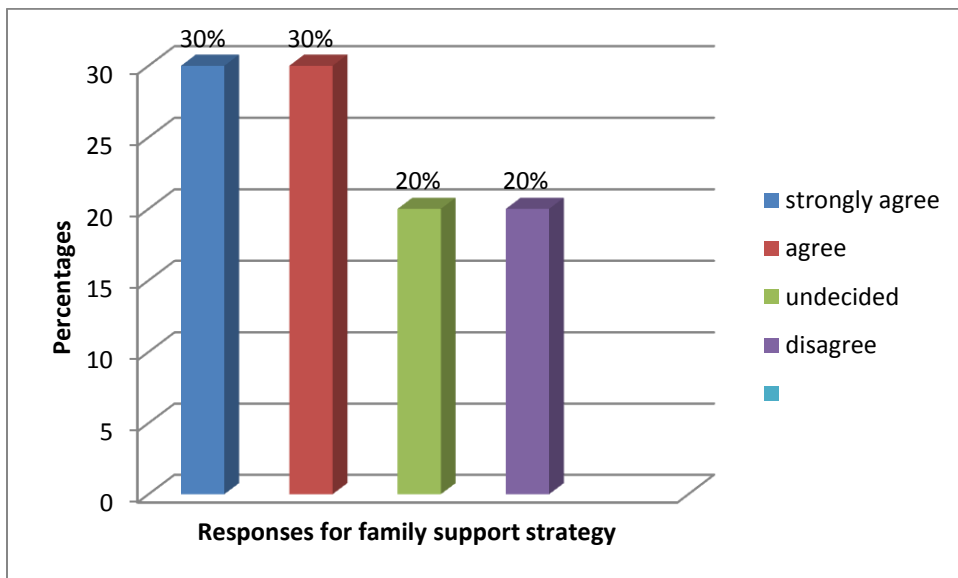
The response of hearing learners on family support program strategy show that (40%) strongly agreed, (30%) agreed while (30%) were undecided (figure 4.12b). Responses of those with hearing impairment on the same strategy show that (30%) strongly agreed, (30%) agreed, (20%) were undecided while another (20%) disagreed (Figure 4.12c). The study revealed that both learners with hearing impairment (60%) and their counterparts with hearing (70%) were in agreement that assisting children and family in language learning has a role in inducing quality learning through language and speech to propel quality academic achievement of learners with hearing impairment in Thawabu inclusive school.

Those who were undecided and disagreed could be were not aware of the power of language and speech at an early involvement of all stakeholders. These must be a group of people who still believe that hearing impairment is a curse and should be on their own.

Such a group still holds that learners with hearing impairment should not attend classes with hearing peers in regularly school and classes.



**Figure 4.12 (b): Family support program**



**Figure 4.12 (c): Family support program**

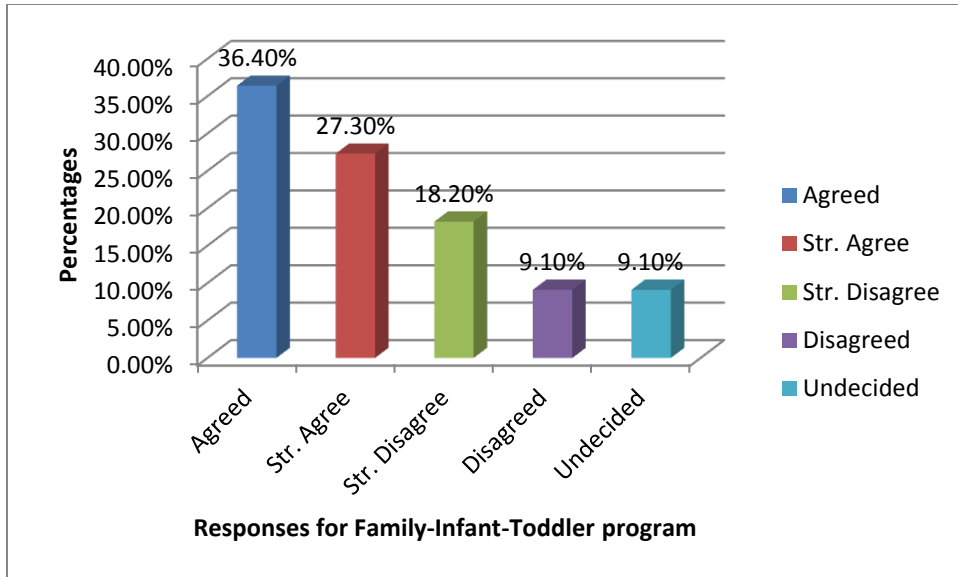
The researcher felt there was need to involve children and their families in language and speech training to establish socialization that could trigger improvement on academic performance of learners with hearing impairment in Thawabu public school in Nairobi County.

#### **4.3.2 Family-Infant-Toddler Program**

Majority of the respondents (36.4%) agreed with the statement that family-infant-toddler program (organized activities) can strengthen socialization through language practice to communize academic performance of learners with hearing impairment and their hearing peers. Twenty seven point three percent strongly agreed, (9.1%) were undecided, (9.1%) disagreed while (18.2%) strongly disagreed (Figure 4.13a). The finding concurred with that of the head-teacher who said the following in his interview with the researcher.

*“With my number of years in service as a teacher, involvement of family members at early life of the child is highly commendable in learning language which will essentially boost his/her vocabulary for future use. Family-infant-toddler program is very important especially to learners with hearing impairment. Parents and family members’ involvement in planned activities will obviously enhance language and cognitive development at an early life of the learner and will transform into future lifestyle. What is learnt at an early age matters a great deal in future education of the learner.”*

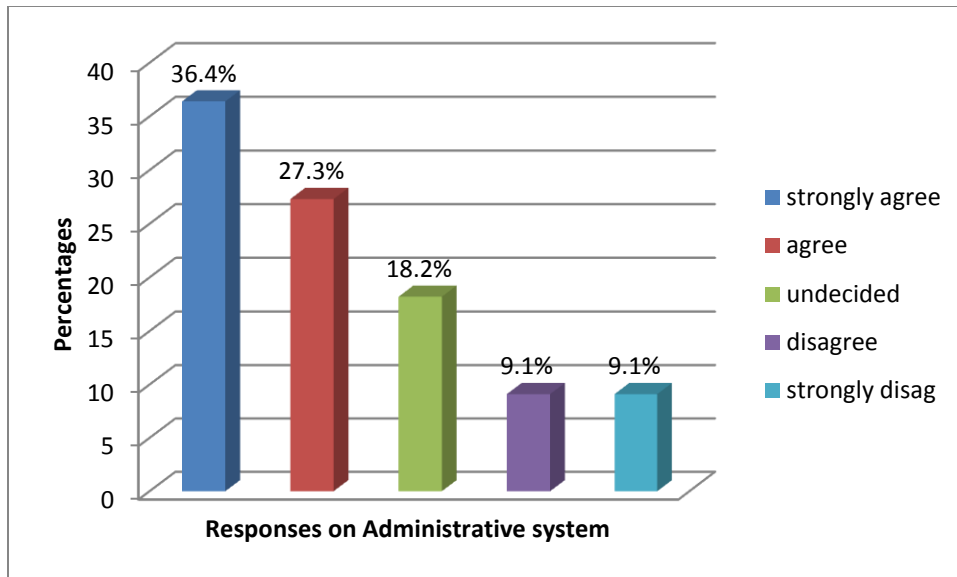
It is evident that despite a fairly reasonable percentage (63.7%) who positively responded that family infant-toddler program could spur socialization into both learners with hearing impairment and their hearing counterparts, very little is done by parents and family members to sustain the program.



**Figure 4.13: Family-Infant-Toddler Program**

#### **4.3.3 Competent and Consistent Administrative System, Research and Development**

The variable sought to establish how competent and consistent administration system, research and development of learners'/teachers' progress, problems and difficulties enhances socialization for academic good of both learners with hearing impairment and their hearing peers. About 36.4% strongly agreed, 27.3% agreed, 18.2% were undecided, 9.1% disagreed and 9.1% strongly disagreed (Figure 4.14). Majority of the teacher respondents were in agreement that competent and consistent administration system, research and development is a component of socialization in Thawabu public inclusive school.

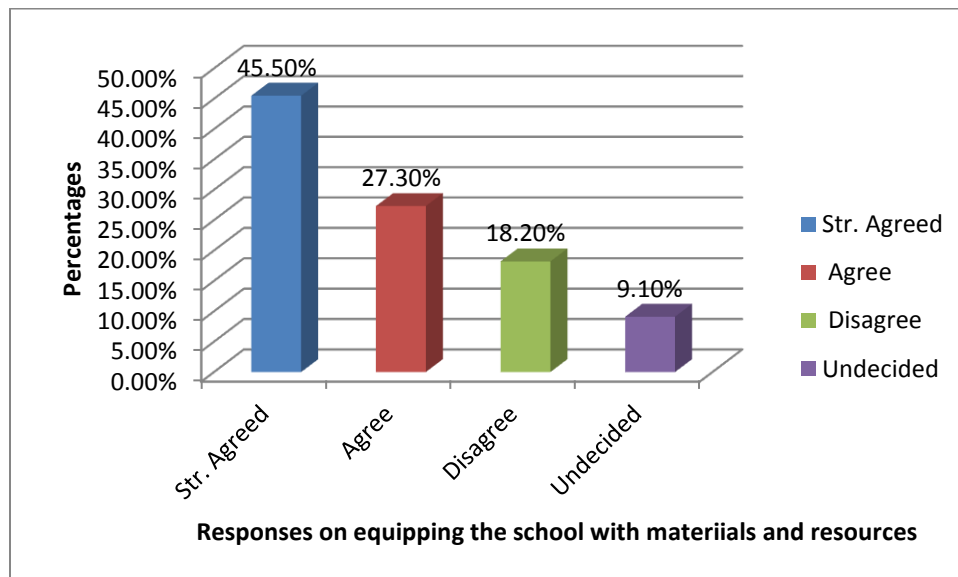


**Figure 4.14: Administrative system, research and development strategy**

The finding also corresponds to the interview between the researcher and the headteacher of Thawabu. He confirmed that a lot has to be done still in regards to socialization of learners with hearing impairment in order for them to be comfortable with their hearing peers in inclusive public schools. Administration needs to be steady, unwary and consistent in policy formulation and implementation for the school and learners to have a direction. Performance of all learners could improve if continuous research and development is maintained to unearth problems and difficulties within the teaching and learning of all learners in an inclusive setting, Development in terms of teaching and learning resources, classroom set-up to accommodate all learners irrespective of their nature of disabilities and many others, should be availed. This could help improve socialization which in the end enhances academic performance through mutual sharing of ideas and group discussion.

#### 4.3.4 Equipping the School with Materials and Resources for Development

The researcher asked a question on whether equipping of materials and other resources required for learners with hearing impairment and their hearing peers could improve socialization to facilitate inclusion in Thawabu. The response to this question was; 45.50% strongly agreed, 27.3% agreed, 9.1% were undecided while 18.2% disagreed. Majority 72.8% of the teacher respondents attested to the fact that equipping materials and resources is ideal to promote socialization with ultimate aim of improved performance of learners in an inclusive school. Materials like hearing aids improve sound production in the classrooms to mention a few. This promotes learning for all learners at equal rate and pace which is very important in enhancing mutual understanding of the subject matter hence good academic performance at the end (Figure 4.15).



**Figure 4.15: Equipping the school with materials and resources**

The revelation of the study is supported Wanjiko (2014) who found that lack of funds for school management and development were contributors to drawback in the implementation of inclusive education system of learners with hearing impairment in public regular schools.

#### **4.4 Challenges Facing Teachers in Enhancing Socialization to Improve Academic Performance of Learners with Hearing Impairment**

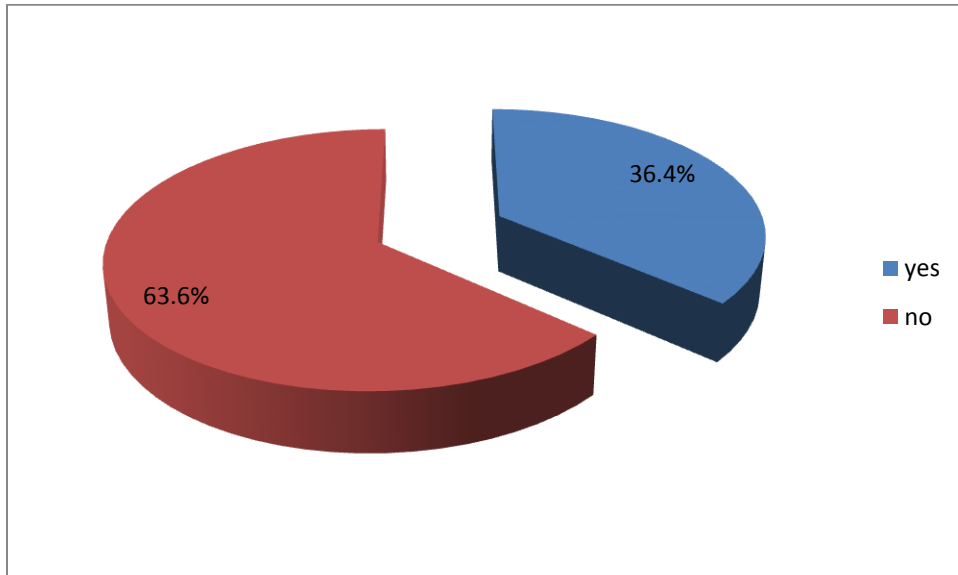
The third objective of the study was to determine the challenges of enhancing socialization for improvement of academic performance of learners with hearing impairment in Thawabu inclusive school. This objective was analyzed under the following sub-topics; professional training of teachers, resources used in teaching learners with hearing impairment, teaching experience, mode of communication, attitude towards learners with hearing impairment and methods of teaching (discussion, role taking etc.)

##### **4.4.1 Professional Training of Teachers of Learners with Hearing Impairment**

A question was asked to teachers of learners with hearing impairment on their professional training for learners with hearing impairment. Their responses were; (36.4%) admitted that professional training was done to only few teachers initially while (63.6%) had no prior professional training (Figure 4.16).

From the findings of the study it can be seen that majority of teachers (63.6%) of learners with hearing impairment were not specially trained to teach learners with hearing impairment although they were handling them in an inclusive setting.

This could be a pointer to why few learners with hearing impairment are registered in Thawabu inclusive school. Although the trained teachers of learners with hearing impairment were few, their attitude towards inclusion of those with hearing impairment seemed highly positive and that can be seen through the number of learners with hearing impairment in the school. No discrimination of those with disability could be realized in the school through inclusion of learners with hearing impairment in classes alongside those with hearing. It is proof of socialization that exists though at a low level, but can be improved to enable performance and number of learners with hearing impairment to increase in the school. The stronger the relationship, the greater the self-esteem, self-motivation and self-actualization hence improved academic performance.



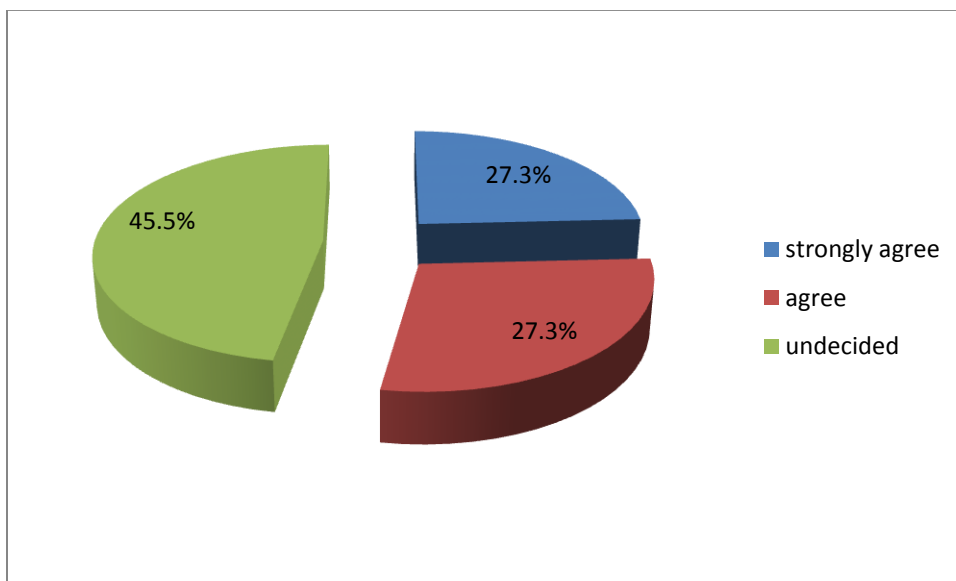
**Figure 4.16: Professional training of teachers**

The finding is supported by Asif (2008) who found that regular class teachers need induction training to handle learners with hearing impairment in an inclusive setting.

Despite positive attitude teachers exhibit in Thawabu, training them to become Special Needs Education teachers would add more vigour towards learners with diverse abilities in an inclusive setting.

#### 4.4.2 Resources for Teaching Learners with Hearing Impairment

The researcher intended to establish the resources used for teaching learners with hearing impairment in Thawabu inclusive school. A question was asked to that effect to establish what availability of resource materials to be used on learners could do to enhance socialization, inclusion and good academic performance. Three teachers 27.3% strongly agreed, 27.3% agreed while 45.5% were undecided. Majority of the teachers 54.6% were in agreement that the resources availed for use by learners with hearing impairment determines the degree of involvement in any discussion which results in the beginning of socialization and engagement in learning (Figure 4.17).



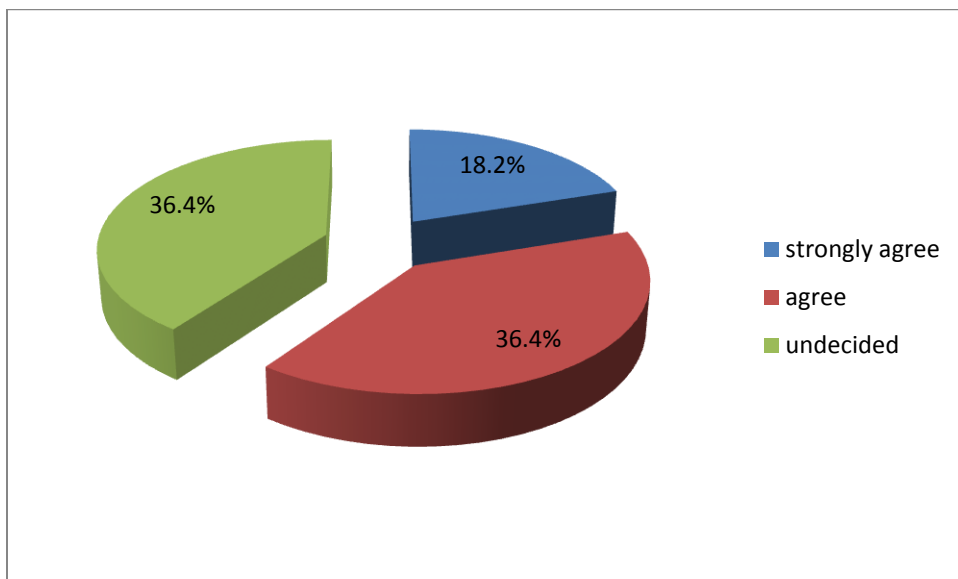
**Figure 4.17: Resources for teaching learners with hearing impairment**

The findings of the study shows that most teacher respondents (54.6%) were of the opinion that availability of resources and materials would bring ease to hearing and communication amongst learners (both hearing and those with hearing impairment) and their teachers to promote socialization in the school. In the presence of this, learners with hearing impairment would automatically improve in academic performance. If every individual is concerned about one another's welfare, upkeep and progress that would be proof of socialization which transforms into perfected academic performance. It shows that there is cooperation, discussion and concern of one another's welfare in the inclusive school. A withdrawn individual can never socialize with others hence poor academic performance at the end. From the finding, it can be argued that lack of adequate materials and resources in an inclusive school is the cause of poor academic standards of learners with hearing impairment. Lack of self-esteem, self-actualization and withdrawal of learners with hearing impairment, would obviously lead to poor socialization hence dismal academic performance.

#### **4.4.3 Cooperation of Learners in the Inclusive School**

This study examined adaptation of cooperation of all members in the inclusive school. Learners with hearing impairment would embrace comfort and liking of the school environment if the mode of communication is common, to promote cooperation. When teacher respondents were asked their views in that regard, two (18.2%) strongly agreed, (36.4%) agreed and (36.4%) were undecided. The finding shows that 54.6% of the respondents were in agreement that cooperation among learners with and without hearing impairment can initiate socialization which would lead to informed decision and ideas for

academic growth. Cooperation amongst learners would encourage group and class discussions, sharing of ideas and problems to bring forth socialization. This could mean that common understanding and mode of communication amongst learners with hearing impairment and hearing peers which makes them part ways would be bridged to enhance comfort and confidence. It promotes strong bond and interrelationship in the inclusive school hence self-esteem to pursue high educational achievement.



**Figure 4.18: Cooperation of learners in the inclusive school**

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.0 Introduction**

The purpose of this study was to investigate virtues of socialization on academic performance of learners with hearing impairment in an inclusive school of Thawabu in Nairobi City County.

#### **5.1 Summary**

The study was conducted in Thawabu Inclusive Primary School in Nairobi City County, Kenya. The three set objectives guided the study. The study targeted administrator of Thawabu inclusive public school, teachers, learners with hearing impairment and learners with hearing; a sample size of 32 respondents were selected for the study. These included head-teacher, 11 teachers, 10 learners with hearing impairment and 10 learners with hearing. The research findings were summarized as follows:

##### **5.1.1 Modes of Communication Promoting Socialization Between Learners with Hearing Impairment and Hearing Peers**

All the respondents; teachers, learners with hearing impairment and hearing peers agreed that total communication enhances socialization to improve academic performance of learners with hearing impairment in an inclusive public school.

All the teacher respondents were in agreement that use and learning of sign language as any other subject boosts socialization of learners with hearing impairment for their academic improvement

Majority of learners with hearing impairment were in agreement that use and learning sign language ignites and raises level of understanding between the teachers and learners in general. Commonness in language promotes socialization hence learners with hearing impairment's growth academically in the inclusive school of Thawabu.

The overwhelming positive responses from all respondents on board (teachers, learners with hearing impairment and hearing peers) showed that they were pro systematic and consistent use of vocalic in the inclusive school to promote socialization. The nature of freedom between the teachers and the learners improves approach in the academic sphere, which result to improved educational standards of the learners with hearing impairment in an inclusive setting.

Majority of learners were convinced that kinesthetic improves attitude, behavior and emotion of learners in general in inclusive school to offer remedy of educational standard of learners with hearing impairment in those schools.

Oral-aural approach as a mode of communication was overwhelmingly supported by teachers for socialization of learners with hearing impairment in Thawabu Inclusive School.

Mode of communication creates both social and educational change for improvement of academic performance. Modes of communication narrowed the gap between learners with hearing impairment and others with hearing in public schools to promote meaningful socialization amongst them. A mode of communication enhances socialization to some of those with disabilities to minimize the impact of their disabilities to focus on future life ahead of them. It helps to reduce fear, stigmatization of the disability and reproach hence improving self-esteem, self-actualization and confidence to do what others can do. By improving socialization, it help remove disability related barriers, makes learners with hearing impairment to work hard just like their peers without disabilities to improved academic performance for a well-integrated society.

The study revealed that there are different agreeable modes of communication that can be used interchangeably amongst learners and teachers to bridge communication gap existing in learners with hearing impairment which prevents incidental learning. The ultimate aim of using these modes or a preferred one should be to promote incidental learning which is lacking in learners with hearing impairment to meet their educational obligations. In the inclusive school, if appropriate use of these modes of communication is enhanced, learners with hearing impairment are likely to benefit greatly in their educational endeavors and good relationship with their peers and teachers would be realized. Teachers and other learners who still doubt the realities of this findings should be made to understand to avoid suffering, isolation and uncooperativeness of learners with hearing impairment which causes dismal educational performances in them.

Socialization may encourage consultation among peers and teachers to bring harmony in the classroom environment for conducive learning for all.

### **5.1.2 Strategies for Boosting Socialization in Inclusive Schools**

Majority of teachers agreed that family support program strategy (assisting children and families in language learning) was found to be a catalyst to socialization to aid learning of learners with hearing impairment.

Family-infant-toddler program was supported by majority of teacher respondents as one of the strategies which can be used to socialize learners with hearing impairment in Thawabu inclusive school. An overwhelming percentage of teachers of learners with hearing impairments strongly agreed on the fact that the strategy could instill ideas and concepts of working together with family members as a team to socialize and make learners with hearing impairment discuss, share and internalize the taught concepts for academic achievement. It is proof of good ties together for improving learning environment to enhance academic performance of learners with hearing impairment in the school. Learners with hearing impairment strongly agreed that they can perform well if learning strategies are improved in the school.

Most of the teacher participants in Thawabu inclusive school showed that competent and consistent administration system, research and development is a component of socialization in an inclusive school. There could be great attitudinal change in the lives of learners with hearing impairment in terms of how they relate with one another in the school environment if this program is initiated and maximized.

Another supported strategy for socialization of learners with hearing impairment in an inclusive school was equipping the school with materials and resources for development. Majority of teachers were in agreement that it is a working strategy for learners with hearing impairment in Thawabu inclusive school.

### **5.1.3 Challenges Facing Teachers in Enhancing Socialization to Improve Academic Performance of Learners with Hearing Impairment**

Majority of teacher respondents in Thawabu inclusive school were not specially trained teachers of learners with hearing impairment. It could be one reason for the few learners with hearing impairment. There exists positive attitude in the teachers who are not specially trained and learners with hearing at school to encourage inclusive system in the institution. The more trained teachers in special needs education, the greater the help for those with disabilities to gain self-esteem, self-motivation and self-actualization for improved academic performance.

Most teacher respondents said there were no enough resources for teaching learners with hearing impairment in the inclusive public school of Thawabu even though they were very concerned with the learners' welfare, upkeep and progress. It showed that lack of adequate resources was a hitch for proper impartation of educational concepts to learners with hearing impairment in the inclusive school.

Majority of the respondents were in agreement that cooperation among learners with and without hearing impairment can initiate socialization which would lead to informed decisions and ideas for academic growth of learners with hearing impairment.

Cooperation amongst learners would encourage group and class discussions, sharing of ideas and problems to bring forth socialization. Hearing learners agreed that learners with hearing impairment's cooperation with teachers, classmates and other people around them would automatically offer incidental learning which translates into good academic performance of all learners. Cooperation between learners with hearing impairment and their hearing peers would improve participation of learners with hearing impairment in group and class discussion to regulate and equalize academic performance. Cooperation between learners with hearing impairment, their teachers and hearing peers improved performance of learners with hearing impairment.

## **5.2 Conclusions**

Based on the findings, the study concludes that:

- a) Socialization influences incidental learning of learners with hearing impairment to put them at par with their peers on matters related to both academic performance and social advancement. It equally boosts their morale through use of varied modes of communication, group discussions, class discussion and approaches to other people around them in the study school. This is very important to learners with hearing impairment as it helps in improving self- esteem, self-actualization and confidence in them.
- b) Teachers and family members of learners with hearing impairment would promote socialization through use of varied strategies such as (family support program, family-infant-toddler, materials & resources program and communication modes to spur academic growth of learners with hearing

impairment in inclusive settings in public schools. Socialization establishes cooperation in the study school through enhanced communication modes amongst learners with hearing impairment, teachers and their parents.

- c) Socialization of learners with hearing impairment, their hearing peers and teachers in Thawabu inclusive public school in Nairobi County improves academic performance of learners with hearing impairment. The role played by socialization in Thawabu inclusive public school is splendid and pivotal in enhancement of inclusive education and social advancement of learners with hearing impairment, leading to positive educational direction for the learners. A number of learners and teachers in the study school could improve their relationship with peers, teachers and other people through improved socialization for better academic performance.

Even though majority of teacher respondents were not specially trained for learners with hearing impairment, they showed positive attitude towards inclusion of learners with hearing impairment in Thawabu Inclusive School. Teachers and learners need to adjust in upholding socialization with one another for good of education and social growth in the school. A number of the teachers were not professionally qualified in handling learners with hearing impairment, but were willing to advance their professional training to enhance inclusion of learners with hearing impairment in public schools.

### **5.3 Recommendations**

These recommendations are made based on the findings of the study;

- (a) The government, teachers, learners, the community, the school sponsors and NGOs should work together to promote strategies and communication modes to enhance education standards of learners with hearing impairment. All the stakeholders should fully be involved to make it possible for learners with hearing impairment fit well in an inclusive school. Teachers, learners and the community should accept, recognize and use common modes of communication both at school and homes of learners with hearing impairment. This will boost socialization between the learners with hearing impairment and the hearing lots which should translate into good academic performance.
  
- (b) The government to initiate strategies of financing and maintaining systematic campaign for smooth running of inclusive schools to ensure socialization of learners with hearing impairment for their academic performance. The headteachers should engage the non-governmental organizations, the faith based organizations, individual well-wishers and the community in mobilizing resources especially for provision of modern assistive devices for communication of learners with hearing impairment
  
- (c) The Teachers Service Commission should post more specially qualified teachers of learners with hearing impairment in Thawabu Inclusive Public School to help promote socialization in the school. This will eventually eradicate isolation of learners with hearing impairment to promote their academic performance. This will

ensure that learners with hearing impairment gain confidence and self-esteem to narrow the gap between them and their hearing peers. Equally, more teachers should be trained to cope with the rising demands of the learners with hearing impairment and to usher in socialization for inclusion of learners with hearing impairment in public schools.

#### **5.4 Suggestions for Further Research**

The following suggestions were given as problems for further research:

- (a) A study of this nature should be carried out in other schools with inclusive setup to establish views of stakeholders on socialization of learners with hearing impairment in promoting inclusion of learners with disabilities in public schools in their societies of origin to enhance harmony and educational standards in the society.
- (b) A study should be carried out to establish other advanced modes of communication devices that can be used to promote socialization of learners with hearing impairment in public local schools of origin.

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**APPENDICES****APPENDIX I****INTRODUCTION LETTER**

I am a master's student at Kenyatta University in the department of Special Needs Education. This questionnaire is designed to gather information on the social interaction and its influence on academic performance of learners with Hearing Impairment in an inclusive school. The information in this questionnaire will be treated with confidentiality and will only be used for the purpose of this research. Your honest contribution in facilitating the same will be highly appreciated. Thank you in advance.

**APPENDIX II**  
**HEADTEACHERS INTERVIEW**

1. What is your Name?
2. What is your age bracket?
3. What is your highest Level of Education?
4. For how long have you worked as a head teacher?
5. For how long have you been in this school?
6. Which mode of communication do you think can be used to determine improved level of comprehension of all learners in an inclusive setting?
7. What is your take on the right mode if used, by teachers in regards to general performance of all learners?
8. The learning process depends entirely on how the modes of communication are used. Comment on that.
9. The instructional strategy put in place by the teacher plays a major role in improving performance of learners in an inclusive setting. Comment on that.
10. The teachers have adequate training on the right instructional strategies to use on the learners in an inclusive setting to promote their social well-being and their improved performance. What is your take in that?
11. Which challenges do teachers face in schools to influence inclusive education in public primary schools like Thawabu?

**APPENDIX III**  
**TEACHERS' QUESTIONNAIRES**

**BIODATA**

1. Gender:    Male         Female   
 Ages:        25 -30     31 – 35     36 – 40     41 -45     46 and above
2. Highest academic qualification attained;  
 Form IV     Form VI     University
3. Highest professional qualification attained;  
 P1     Diploma     Bachelor of education     Master of education
4. Did you advance your current professional qualification? Yes  No
5. State your initial level of professional qualification before advancement.  
 P1     Diploma     Bachelor of education
6. Are you professionally trained teacher for learners with HI?  
 Yes         No
7. Are you a professionally trained Special needs education teacher?  
 Yes         No

If no, please explain area you are specialized in-----

-----

Teaching experience (years) -----

**SECTION B**

8. Kindly respond to the statements below by ticking the portion that fits your opinion.

The statements have five possible responses on socio-cognitive influence of inclusion of learners with hearing impairments. Choose only ONE from each statement.

**Strongly Agree 5   Agree 4   Neutral 3   Disagree 2   strongly disagree 1**

Statements for the responses		RANKING				
		SA	A	U	D	SD
1.	The school avails resources materials to be used by the teachers on the learners to enhance inclusion.					
2.	The resources used in teaching greatly promote academic performance of learners with HI					
3.	Inclusive education influence positive attitudinal change towards learners with hearing impairment.					
4.	Cooperation between learners with and without hearing impairment has led to active participation of learners with HI in both group and class discussion.					
5.	Learners with HI consider discussing with their hearing counterparts as their equals in school and home settings.					
6.	Learners with HI enjoy learning together in an inclusive setting.					
7.	Placement of learners with hearing impairment in class is done according to individual learner's needs.					
8.	Social interaction in inclusive education has positive attitudinal and educational change in learners with HI					
9.	Cooperation between learners with HI and their hearing peers improved performance of learners with HI					

**Strongly Agree 5   Agree 4   Neutral 3   Disagree 2   strongly disagree 1**

<b>Statements for the responses</b>		<b>RANKING</b>				
		<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>
	Family support program (assisting children and families in language learning) enhances socialization to improve performance of learners with HI in an inclusive setting					
	Family-infant-toddler program (organized activities) can strengthen socialization through language practice to communize academic performance of learners with HI and their hearing peers					
	Competent and consistent administration system enhances socialization for academic good of both learners with HI and their hearing peers					
	Equipping the required materials and resources for development in the school increases socialization hence good academic results for both learners with HI and hearing peers					

## APPENDIX IV

### LEARNERS' WITH AND WITHOUT HI QUESTIONNAIRES

#### BIODATA

1. Gender: Male  Female
2. Ages: 5 -10  11 – 15  16 and above
3. Your class or grade  
Class IV  Class V  Class VI -- Class VII --
4. Kindly respond to the statements below by ticking the portion that fits your opinion. The statements have five possible responses on socio-cognitive influence of inclusion of learners with hearing impairments. Choose only ONE from each statement.

**Strongly Agree 5    Agree 4    Neutral 3    Disagree 2    strongly disagree 1**

Statements for the responses		RANKING				
		SA	A	U	D	SD
	Total communication can enhance socialization between learners with hearing impairment and their hearing peers to promote academic performance.					
	Learning and use of KSL by all learners in school can boost socialization of hearing and HI learners in school and at home,					

	Systematic and consistent use of vocalic ( paralanguage that includes; volume, rate, pitch and timbre can improve socialization among learners with HI and hearing peers					
	Kinesthetic (body language including facial) as a component of communication, improves socialization amongst learners with HI and their hearing peers to boost learning in an inclusive setting					
	Research and development of learners'/teachers' progress, problems and difficulties enhances socialization for academic good of both learners with HI and their hearing peers					
	Oral-aural approach encourages an individual learner's auditory skills and aims at teaching how to speak so as to communicate with the hearing counterparts in a social setting					

**APPENDIX V****LEARNERS OBSERVATION SCHEDULE****Instruction**

*To be conducted in the classroom during lessons, out of classrooms, when students are either receiving instructions or when they are not with the teacher.*

- 1) Behaviour of learners in class and out of the classroom
- 2) Mode of communication in and out of the classroom settings.
- 3) Teachers instructional strategies put in place to enhance social interaction that promotes inclusiveness of learners
- 4) Teacher attitude towards inclusion of learners with hearing impairment
- 5) Learner's attitude towards one another.
- 6) Facilities/equipment/materials:
- 7) Teaching/learning approach whether learner centered or teacher centered

## APPENDIX VI

## RESEARCH AUTHORIZATION LETTER

Approved  
 HAP 26/4/2018  
 COUNTY COMMISSIONER  
 NAIROBI COUNTY  
 P. O. Box 30124-00100, NBT  
 TEL: 341666



NATIONAL COMMISSION FOR SCIENCE,  
 TECHNOLOGY AND INNOVATION

Telephone: 020 400 7000,  
 0713 788787, 0735404245  
 Fax: +254-20-318245, 318249  
 Email: dg@nacosti.go.ke  
 Website: www.nacosti.go.ke  
 When replying please quote

NACOSTI, Upper Kabete  
 Off Waiyaki Way  
 P.O. Box 30623-00100  
 NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/74196/21782**

Date: **16<sup>th</sup> March, 2018**

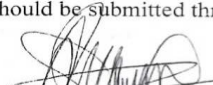
Everlyne Achieng Owuor  
 Kenyatta University  
 P.O Box: 43844-00100  
 NAIROBI.

**RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on "*Influence of socialization of learners with hearing impairment on academic performance: A case of Thawabu Inclusive School in Nairobi County, Kenya*" I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **15<sup>th</sup> March, 2019**.

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.




  
**DR. STEPHEN K. KIBIRU, PhD.**  
**FOR: DIRECTOR-GENERAL/CEO**



Copy to:

The County Commissioner  
 Nairobi County.

The County Director of Education  
 Nairobi County.

**APPENDIX VII**  
**RESEARCH PERMIT**

<p><b>THIS IS TO CERTIFY THAT:</b> <b>MS. EVERLYNE ACHIENG OWUOR</b> of <b>KENYATTA UNIVERSITY, 0-400</b> <b>SUNA</b>, has been permitted to conduct research in <b>Nairobi County</b></p> <p>on the topic: <b>INFLUENCE OF</b> <b>SOCIALIZATION OF LEARNERS WITH</b> <b>HEARING IMPAIRMENT ON ACADEMIC</b> <b>PERFORMANCE: A CASE OF THAWABU</b> <b>INCLUSIVE SCHOOL IN NAIROBI COUNTY,</b> <b>KENYA.</b></p> <p>for the period ending: <b>15th March, 2019</b></p> <p style="text-align: center;"> ..... <b>Applicant's</b> <b>Signature</b></p>	<p>Permit No : <b>NACOSTI/P/18/74196/21782</b> Date Of Issue : <b>16th March, 2018</b> Fee Received : <b>Ksh 1000</b></p> <div style="text-align: center;">  </div> <div style="text-align: center;">  ..... <b>Director General</b> <b>National Commission for Science,</b> <b>Technology &amp; Innovation</b></div>
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<p style="text-align: center;"><b>CONDITIONS</b></p> <ol style="list-style-type: none"> <li>1. The License is valid for the proposed research, research site specified period.</li> <li>2. Both the Licence and any rights thereunder are non-transferable.</li> <li>3. Upon request of the Commission, the Licensee shall submit a progress report.</li> <li>4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.</li> <li>5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.</li> <li>6. This Licence does not give authority to transfer research materials.</li> <li>7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.</li> <li>8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.</li> </ol>	<div style="text-align: center;">   <b>REPUBLIC OF KENYA</b>  <hr style="width: 100px; margin: 5px auto;"/>   <b>National Commission for Science,</b> <b>Technology and Innovation</b>  <b>RESEARCH CLEARANCE</b> <b>PERMIT</b> </div> <p style="text-align: center; margin-top: 20px;"><b>Serial No.A 17963</b></p> <p style="text-align: center;"><b>CONDITIONS: see back page</b></p>
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