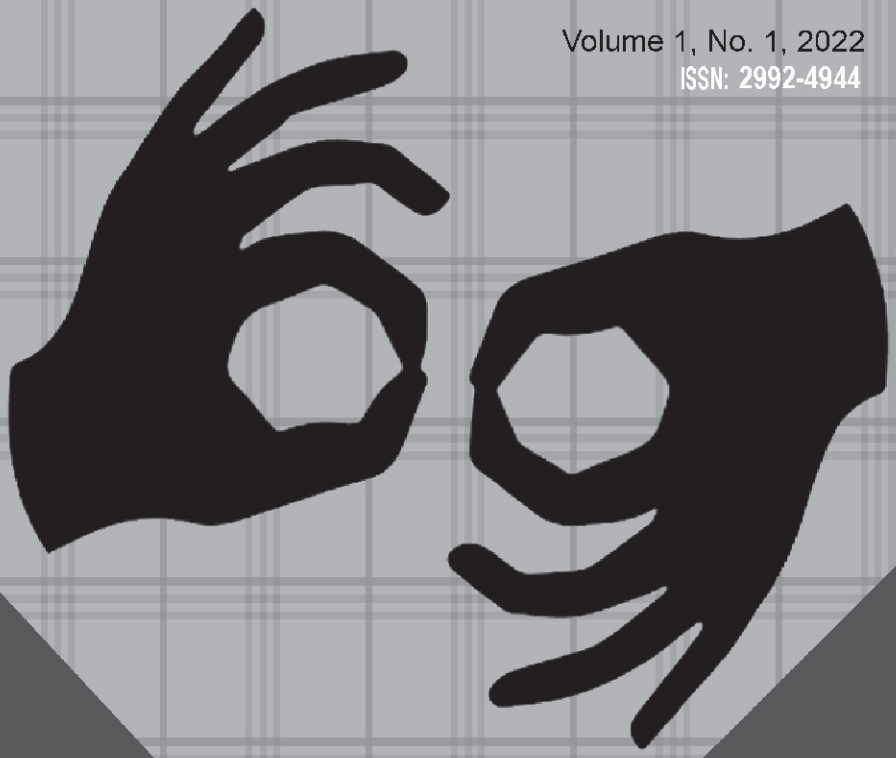
Volume 1, No. 1, 2022
ISSN: 2992-4944



THE SIGN LANGUAGE INTERPRETER

Journal of Association of Sign Language Interpreters of Nigeria

Published in Nigeria by:
Association of Sign Language Interpreters of Nigeria

ISSN: 2992-4944

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The Sign Language Interpreter

Journal of the Association of Sign Language Interpreters Association of Nigeria

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The Sign Language Interpreter emphacises empirical research in the field of Special Education particularly hearing impairment as well as sign language communication and interpretation. It provides an avenue for dissemination of research findings in form of original research, book review, theoretical and conceptual papers, among potential researchers, students, educators as well as policy makers.

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Editorial Note

The Sign Language Interpreter is a journal of the Association of Sign Language Interpreters of Nigeria (ASLIN). ASLIN is a registered professional body of experts in deaf education and allied disciplines who are committed to professionalization of sign language communication and interpretation and effective service delivery to members of the deaf community in Nigeria as well as drive home quality research output and dissemination in the obscured field of deaf studies. As part of its mandate, ASLIN organizes conferences, trainings and workshops to brainstorm on global best practices in sign language communication and interpretation for quality service delivery to members of the deaf community.
Papers considered for publication in this maiden edition of *The Sign Language Interpreter* were harvested at ASLIN 2nd National Conference held at the University of Calabar on July 27-30, 2021 on the theme: Impact of COVID-19 Pandemic on Sign Language Interpreting Profession and Inclusion of the Deaf in the Society. The quality of the articles published here attest to the thorough editorial job done by the assessors and by extension showcased the rigorous research and academic prowess of all the contributors.

The Editorial team wishes to commend the unequalled research skills of the authors and their willingness to make their findings available to the public. The thorough editorial work of the assessors, which greatly enhanced the quality of this edition, is highly appreciated.

I am therefore pleased and proud to recommend this maiden edition to students, scholars, teachers, researchers, policy makers and other stakeholders in deaf studies. Grape a copy and read it!

T.A. Adaka, ***Ph.D***
Editor-in-Chief

The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

RELEVANCE OF SIGN LANGUAGE INCLUSION IN THE LANGUAGE DEVELOPMENT OF CHILDREN WITH HEARING LOSS IN CALABAR MUNICIPAL LOCAL GOVERNMENT AREA OF CROSS RIVER STATE

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University of Calabar

Abstract
This study determined the relevance of sign language inclusion in the language development of children with hearing loss in Calabar Municipal Local Government Area of Cross River State. In order to achieve the aim of this study, three research questions and three null hypotheses were generated to guide the study. Literature review was done based on the variables under study. Survey research design was adopted for the study. 202 children with hearing loss in 3 special education schools participated in the study using the census approach. However, only 196 copies of the questionnaire were found usable. A questionnaire, validated by three experts (one each in Special Education, English and Measurement and Evaluation) and an English Language Achievement Test were the instrument data collection. Pearson Product Moment Correlation (PPMC) and independent t-test was used in testing the hypotheses. The study revealed that significant relationship between sign language usage and language development of children with hearing loss. The study also found that there is no significant difference in the language development with respect to sign language usage based on gender and school type. Based on the findings, it was recommended among others that teachers should use sign languages (total communication) in communicating to their students, irrespective of whether they are male or female, as language development is not affected by the gender of the recipient.

Keywords: Sign Language, Sign Language Inclusion, Language Development, Children with Hearing Loss

Background of the Study

The ear is one of the most important five sense organs, which must work properly for an individual to function well. If any of the parts of the ear is affected or damaged, it may result in hearing loss. **Hearing loss** is a partial or total inability to hear. It may be present at birth or acquired at any time afterwards. Hearing loss

may occur in one or both ears. Hearing loss may be caused by a number of factors, including: genetics, ageing, exposure to noise, some infections, birth complications, trauma to the ear, and certain medications or toxins (Adeleke & Oyundoyin, 2016).There are three main types of hearing loss: , sensorineural hearing loss, and mixed hearing loss.

According to World Health Organization (WHO, 2016) reported about 360 million people (about five percent) of the world's population live with hearing loss, which is considered disabling; and of this statistics, nearly 32 million are children. The vast majority of these individuals live in the world's low income and middle-income countries. For children, in fact hearing is very crucial to learning spoken language, achieving greater feats academically, and engaging in socially worthwhile activities. However, hearing loss poses a barrier to education, social integration and language development. Due to this, children with hearing loss can benefit greatly if they are identified early in life and offered appropriate interventions, like the use of sign language.

Spoken communication is uniquely human. If the sense of hearing is damaged or absent, individuals with the loss are denied the opportunity to sample an important feature of their environment, the sounds emitted by nature and by humans themselves. People who have hearing loss will have diminished enjoyment for music or the sound of a babbling brook. It is recognized that some hearing loss children are born to deaf parents who communicate through American Sign Language. Without hearing, these children have full access to the language of their home environment and that of the deaf community. However, the majority of these children are born to hearing parents. For these families, having a child with hearing loss may be a devastating situation. The loss or reduction of the sense of hearing impairs children's ability to hear speech and consequently to learn the intricacies of the spoken language of their environment. Hearing loss impairs their ability to produce and monitor their own speech and to learn the rules that govern the use of speech sounds (phonemes) in their native spoken language if they are born to hearing parents.

Consequently, if appropriate early intervention does not occur within the first 6-12 months, hearing loss or deafness, even if mild, can be devastating to the development of spoken communication with hearing family and peers, to the development of sophisticated language use, and to many aspects of educational development, if environmental compensation does not occur. It may cause delay in the development of receptive and expressive communication skills (speech and language); learning problems that may result in reduced academic achievement; communication difficulties which often lead to social isolation and poor self-

concept and may have an impact on their vocational choices. In addition, hearing loss can affect the development of children's ability to engage in age-appropriate activities, their functional speech communication skills, and their language skills. The researcher assumes that sign language may be relevant in addressing these ills in children with hearing loss. It is on this basis, that the study determined the relevance of sign language in the language development of children with hearing loss and whether difference exist in the language development of children with hearing loss with respect to sign language usage based on gender.

Sign languages (also known as **signed languages**) are languages that use the visual-manual modality to convey meaning. Sign languages are expressed through manual articulations in combination with non-manual elements. Sign languages are full-fledged natural languages with their own grammar and lexicon. According to Agomoh (2010), sign languages are not universal and they are not mutually intelligible with each other, although there are also striking similarities among sign languages. Linguists consider both spoken and signed communication to be types of natural language, meaning that both emerged through an abstract, protracted aging process and evolved over time without meticulous planning. Wherever communities of deaf or hearing loss people exist, sign languages have developed as useful means of communication, and they form the core of local deaf or hearing loss persons cultures. Although signing is used primarily by the deaf and hard of hearing, it is also used by hearing individuals, such as those unable to physically speak, those who have trouble with spoken language due to a disability or condition (augmentative and alternative communication), or those with deaf family members, such as children of deaf adults. Some sign languages have obtained some form of legal recognition such as the American Signed Languages (for example, pigeon signed English, total communication and signing exact English) (Oladoja & Oladoja, 2011).

Ozoji, Unachukwu and Kolo (2016) stated that the grammar of sign language relies on space, hand shape and movement; this language also has non manual components – facial expressions, body movements – that play an important linguistic role in constructing visual-spatial utterances. On the whole, just as in spoken languages, sign language, such as American Sign Language (ASL), is structured at syntactic, morphological and phonological levels of analysis (Scott & Ho Meiste, 2017).Leech and Cress (2011) have showed that sign language results to long-term cognitive benefits, including: +12 IQ point advantage, accelerated speech and emotional development, enables children to communicate effectively, lowers frustration levels, improves child-parent bonding, reinforces the learning of educational concepts such as ABC's, animals, and other specific themes, helps

children remember words because there is muscle memory involved, and the more senses involved in learning, the greater memory retention the child will have, improves attentiveness to social gestures of others as well as of themselves, larger speaking vocabulary and ability to form longer sentences, earlier reading and larger reading vocabulary and better grades in school outcome".

Also, Freel, Clark, Anderson, Gilbert, Musyoka and Hauser (2011) asserted that "profoundly deaf children must be exposed to sign language as early as possible or they may miss a critical learning period for language acquisition and never become fluent at signing." Assuming parents are convinced of the value of sign language for their children with hearing loss, there remains one possible hindrance to the child's language learning. In the same vein, Halliday, Tuomainen and Rosen (2017) noted that sometimes hearing parents "do not feel comfortable with sign language, especially in public, and tend to sign only when they communicate directly with the child." He goes on to say that this presents a difficulty for children with hearing loss because it disallows them access to environmental and incidental learning. If parents sign only when directly addressing their child, it "leaves the child ignorant of what is being said and constitutes an obstacle to the child's learning." In effect, lack of parental confidence could lead to semi-lingualism- the development of only a partial language which is not much better than the situation of other deaf children who, without exposure to signs, are left to semi-lingual development of English, or of no language at all.

The best hope for children with hearing loss to fully develop their language skills lies with their parents. It may be useful for parents to review their attitudes towards signing. If a parent acts in public as though the child's first language is a source of embarrassment, how will the child's perception of himself be affected during those important developmental years? And how will the child become proficient enough in his first language to allow him to grasp a second? Agomoh (2010) encouraged parents to sign as much as possible, regardless of their skill levels. "For a deaf child with hearing parents," she writes, "it is vital that parents start signing though the signing may first be simple and incomplete. This provides the opportunity for the child to start developing language." Kyle (2019) noted that several researchers have reported that children with hearing loss "speak more clearly if they have better mastery of the rules of syntax and strong skills in vocabulary and semantics."

With regards to the relevance of sign language based on gender, Dostal and Wolbers (2014) stated that historically, researchers frequently cited the hearing level of children with hearing loss as the sole culprit for performance, or lack of performance, in a variety of areas, including literacy, theory of mind, and

language development. This perspective allows for a broader consideration of languages and modalities and a wider array of strategies for meeting the needs of children with hearing loss and places special emphasis on the importance of language access at early ages.

Although the literature on language deprivation and its effects on academic outcomes such as literacy is in its early stages, researchers have examined the differences between d/hh students who had early versus late exposure to language for a number of years. Bennett, Gardner, Leighner, Clancy and Garner (2014) stated that documented differences in language development and language outcomes for male children who were exposed to ASL early in life as compared to those female children exposed to ASL later. However, such differences are not only present in those who go on to use ASL. Similarly, Nielsen, Luetke, McLean and Stryker (2016) stated that there is also potential for male children with even a mild to moderate hearing loss and who use primarily or only spoken language to experience the effects of language delay.

Similarly, Beal-Alvarez (2014) reported on a small number of case studies which have explored sign bilingual language development, with particular emphasis on the effect of early sign language acquisition on the development of spoken language. She found that "these studies have demonstrated that early sign language acquisition does not prevent deaf children from learning vocal language, but can support this process" (p. 65). Importantly, use of sign language from an early age does not inhibit the motivation and interest in the learning of speech.

Also, Nielsen, Luetke, McLean and Stryker(2016) studied six bilingual children and discovered a great deal about language milestones. They found that both a baby girl acquiring spoken French and English simultaneously and a baby boy, who was acquiring spoken French and Quebec Sign Language (Langue de Signes Quebecoise - LSQ), achieved classic linguistic milestones and exhibited patterns of lexical growth that were consistent with monolingual norms. Nelson, White, and Grewe (2012) asserted that use of sign with male infants leads to “earlier communication of wants, thoughts, and needs, advanced speech and language development, increased IQ and cognitive skills, reduced frustration and emotional outbursts, a strengthened parent–child bond, improved literacy, and increase self-esteem and feelings of satisfaction and accomplishment”. Parents may feel compelled to use baby sign as a way to “jump-start” initial reciprocal communication with a child and promote spoken language development.

Hence, the need for this study as it determined the relevance of sign language in the language development of children with hearing loss in Calabar Municipal Local Government Area of Cross River State. The study will be of immense

significance to parents, teachers, government, policy makers, students, researchers and the general public.

Purpose of the study

The main purpose of the study is to determine the relevance of sign language in the language development of children with hearing loss in Calabar Municipal Local Government Area of Cross River State. Specifically, the research seeks to determine whether:

1. Sign language usage relates to language development of children with hearing loss
2. Difference exist in the language development of male and female children with hearing loss with respect to sign language usage

Research questions

In order to achieve the purpose of the research, the following research questions were designed to guide the study:

1. What is the relationship between sign language usage and language development of children with hearing loss?
2. What is the difference in the language development of male and female children with hearing loss with respect to sign language usage?

Research hypotheses

The following research hypotheses were formulated to guide the study, and were tested at 0.05 level of significance:

1. There is no significant relationship between sign language usage and language development of children with hearing loss.
2. There is no significant difference in the language development of male and female children with hearing loss with respect to sign language usage

Methodology

The researchers adopted a survey research design. The study was carried out in special education schools in Calabar Municipality, Cross River State**.** The population of the study consists of 202 children with hearing loss in the study area (Records from the Cross River State Secondary Education Board, 2021). This comprises of 21, 61 and 120 children in Hillcrest, Greenland and Government Special Education Centers in Calabar Municipality. Purposive and Census approach was adopted in this study such that every member of the population is involved in the study due to the manageable size. The instruments for data

collection were a questionnaire titled "Relevance of Sign Language Questionnaire" (RSLQ) and an 'Achievement Test' to measure the children language development. The instruments were validated by three experts: One in special education, another in English Language and an expert in measurement and evaluation, all from the University of Calabar. To ascertain the reliability of the instruments, a trial test was carried out using 15children with hearing loss in Calabar South who were not part of the main study. The data collected were subjected to Cronbach Alpha Statistical Analysis, which yielded an overall reliability index of .84. 202 copies of the RSLQ were administered and 196 copies were correctly filled and returned giving rise to 97% return rate. After the data was collected, hypotheses were tested using Pearson's Product Moment Correlation. All the hypotheses were tested at 0.05 level of significance with 194 degree of freedom.

Results

There is no significant relationship between sign language usage and language development of children with hearing loss.

The summarized data was subjected to analysis, using Pearson Product Moment Correlation Statistical Technique and the result is presented in Table 1.

TABLE 1: Pearson Product Moment Correlation Statistical Analysis of the relationship between sign language usage and language development of children with hearing loss N=196

Variable	ΣX ΣY	ΣX² ΣY²	ΣXY	df	r-cal	Remark
Sign language usage		2,699	34,403			
			66,854	194	0.4987	
Significant						
Language development	5,396	133,686				

Result significant at p<.05, Crit-r=0.138

The result of the analysis as presented in Table 1 above revealed that the calculated r-value of .50 was greater than the critical r-value of 0.138 at .05 level of significance with 194 degree of freedom. The result of the analysis was said to be significant since the calculated r-value was greater than the critical r-value, with this, the null hypotheses was rejected. Thus, the result implies that there is

significantly relationship between sign language usage and language development of children with hearing loss. Also, since the result is positive, increase in sign language usage would consequently increase language development of children with hearing loss.

Hypothesis Two

There is no significant difference in the language development of male and female children with hearing loss with respect to sign language usage

To test this hypothesis, independent t-test statistic was used and the result is presented in Table 2: Independent t-test analysis of gender and language development with respect to sign language usage n=196

Variable Remark (Gender)	N	X	SD	df	t-cal	
Male	94	23.1041	6.2101			
				194	1.1420	NS
Female	102	24.2507	5.3240			

Result significant at p<.05, Crit-t=1.972, NS = Not Significant

From Table 2, the calculated t-value of 1.1420 was found to be less than the critical value of 1.972 needed for significance at 0.05 level of significance with 194 degree of freedom. Since the calculated t-value was greater than the critical t-value, the null hypothesis was retained. This implies there is no significant difference in the language development of male and female children with hearing loss with respect to sign language usage. Also, from the means, female students had a mean of 24.2507 higher than the mean of male students which is 23.1041; this implies that female students' language development in English Language is better than their male counterparts.

Discussion of Findings

Sign Language Usage and Language Development of Children with Hearing Loss

The finding in this regard revealed that there is significant relationship between sign language usage and language development of children with hearing loss. This is because the development of language is essential for the cognitive and social development of all children, including, of course, those children who have

hearing loss. Expressive language ability in any modality plays a major role in the development of spoken language. However, the ways in which language, cognitive and other aspects of development can best be stimulated and enhanced, and which language or languages should be learnt, are topics for on-going debate in the field of education of children with hearing loss.

The finding is supported by Leech and Cress (2011) have showed that sign language results to long-term cognitive benefits, including: +12 IQ point advantage, accelerated speech and emotional development, enables children to communicate effectively, lowers frustration levels, improves child-parent bonding, reinforces the learning of educational concepts such as ABC's, animals, and other specific themes, helps children remember words because there is muscle memory involved, and the more senses involved in learning, the greater memory retention the child will have, improves attentiveness to social gestures of others as well as of themselves, larger speaking vocabulary and ability to form longer sentences, earlier reading and larger reading vocabulary and better grades in school outcome".

The finding agree with Freel, Clark, Anderson, Gilbert, Musyoka and Hauser (2011), they asserted that "profoundly deaf children must be exposed to sign language as early as possible or they may miss a critical learning period for language acquisition and never become fluent at signing." Assuming parents are convinced of the value of sign language for their children with hearing loss, there remains one possible hindrance to the child's language learning. In the same vein, Halliday, Tuomainen and Rosen (2017) noted that sometimes hearing parents "do not feel comfortable with sign language, especially in public, and tend to sign only when they communicate directly with the child." He goes on to say that this presents a difficulty for children with hearing loss because it disallows them access to environmental and incidental learning. If parents sign only when directly addressing their child, it "leaves the child ignorant of what is being said and constitutes an obstacle to the child's learning." In effect, lack of parental confidence could lead to semi-lingualism- the development of only a partial language which is not much better than the situation of other deaf children who, without exposure to signs, are left to semi-lingual development of English, or of no language at all.

The best hope for children with hearing loss to fully develop their language skills lies with their parents. It may be useful for parents to review their attitudes towards signing. If a parent acts in public as though the child's first language is a source of embarrassment, how will the child's perception of himself be affected during those important developmental years? And how will the child become proficient enough in his first language to allow him to grasp a second?

Language Development of Male and Female Children with Hearing Loss with respect to Sign Language Usage

The finding in this regard revealed that there is no significant difference in the language development of male and female children with hearing loss with respect to sign language usage. This is because sign language provides all parents, whether their children have optimal hearing or not, a way of furthering their children's progress and helping them to meet their highest potential. There are many credible sources of information about the advantages of using American Sign Language and various sign language systems to boost language development, literacy, and even to improve the quality of children with hearing loss speech production

The finding is supported by Dostal and Wolbers (2014) who stated that historically, researchers frequently cited the hearing level of children with hearing loss as the sole culprit for performance, or lack of performance, in a variety of areas, including literacy, theory of mind, and language development. This perspective allows for a broader consideration of languages and modalities and a wider array of strategies for meeting the needs of children with hearing loss and places special emphasis on the importance of language access at early ages.

Although the literature on language deprivation and its effects on academic outcomes such as literacy is in its early stages, researchers have examined the differences between d/hh students who had early versus late exposure to language for a number of years. The finding agree with Bennett, Gardner, Leighner, Clancy and Garner (2014), who stated that documented differences in language development and language outcomes for male children who were exposed to ASL early in life as compared to those female children exposed to ASL later. However, such differences are not only present in those who go on to use ASL. Similarly, Nielsen, Luetke, McLean and Stryker (2016) stated that there is also potential for male children with even a mild to moderate hearing loss and who use primarily or only spoken language to experience the effects of language delay.

Conclusions

Hearing problem is the third most common disease after hypertension and arthritis. If an individual's hearing is affected, it may constitute a great challenge to the persons' living because in human development, hearing is a very important factor in social and academic life. Hearing helps an individual to communicate and interact with his/her environment. On the contrary, hearing loss may hinder a person's social and emotional growth, leading to low self-esteem, aggressiveness, labelling, stigmatisation and stereotyping. Hence, the need to re-emphasize sign

language inclusion and usage at all levels of education for the wellbeing of these persons in the society, as revealed in the findings of this study.

Recommendations

With regards to the findings of the analysis of the research hypotheses put forth for in this study, the following recommendations are made:

1. Government should employ competent sign language interpreters and educators in various schools, as this would enhance the speedy language development of these students, both in school and at home
2. Teachers should use sign languages (total communication) in communicating to their students, irrespective of whether they are male or female, as language development is not affected by the gender of the recipient.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

THE CHALLENGES OF PERSONS WITH HEARING IMPAIRMENT AMIDST COVID-19 PANDEMIC: IMPLICATIONS ON EQUITY & INCLUSION

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Abstract
The paper traced the origin of COVID-19 to the Republic of China in the year 2019 and identified its major signs and symptoms as well as its major risk factors. Psychological Implication of the pandemic is also traced. The major challenges of persons with hearing impairment such as lack as rich sign language vocabulary and access to appropriate health care services among others were discussed. The paper also discussed the implication of COVID-19 on the principle of equity and inclusion. The principle recognises fairness to all persons who disadvantaged than others in access services and facilities. The paper also discussed a way forward and calls for the development of rich vocabulary of sign language to cope with the dynamics of the pandemic.

Keywords: Deaf community, Equity, Inclusion, Sing Language, COVID-19

Introduction

Nigeria as a global community is being ravaged by COVID-19 pandemic which has worldwide effect. COVID-19 otherwise known as Corona virus caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). Corona viruses belongs to colony of viruses that are capable of causing common illnesses ranging from common cold, severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). Until 2019, a strange coron avirus was identified as the cause of a disease outbreak in Wuham, China (Mayo Clinic, 2021). The disease is popularly known as COVID-19 and was declared by World Health Organization (WHO) in March, 2020 as a pandemic.

COVID-19 has an incubation period of 2-14 days before exposure. According to Mayo Clinic (2021) its common signs and symptoms include but not limited to the following:

- Fever
- Cough

- Tiredness
- Loss of taste or smell
- Shortness of breath or difficulty breathing
- Muscle aches
- Sore throat
- Running nose
- Nausea
- Vomiting
- Diarrhea
- Rash

The severity of these symptoms range from very mild to severe. Some persons may experience few signs, while others may not experience any symptoms at all. It is also established that individuals who are advanced in age have higher risk of serious complications from Corona Virus and the risk increases with age. Those who have existing health challenges like diabetics, high blood pressure, weak immune system occasioned by HIV/AIDS, Sickle cell, Cancer, among others also have higher risk of the virus. It must be noted that there are majorly 2 risk factors for COVID-19. Viz:

- Close contact of less than 6ft to someone who is COVID-19 positive
- Being coughed or sneezed on by an infected person.

In Nigeria, first confirmed case was announced on 27th February, 2020, when an Italian citizen in the city of Lagos was tested positive. Since then the number of confirmed cases has risen to thousands. After the confirmation, several measures were announced to curtail the spread of the virus including lockdown and massive enlightenment of the general public. This period marked the beginning of exclusion as most if not all enlightenment programs were rather exclusive of persons with hearing impairment.

Meanwhile, hearing impairment according to IDEA is a condition whether permanent or fluctuating, that adversely affects a child's educational performance. While, deafness refers to hearing impairment that is so severe to the extent that the child cannot process sound through hearing with or without assistive/adaptive technology devices (Montana Gov, nd). Thus in this paper, persons with hearing impairment refers to those whose condition prevents them from receiving sound in all or most of its forms but may respond to auditory stimuli.

Psychological Status of Persons with Hearing Impairment during COVID-19

Keeping borders open and allowing free movement was a major cause for the fast spread of Corona Virus globally. However, lockdown measures were adopted literary throughout the world during the pandemic could not effectively combat the spread of COVID-19. Many nations insisted on a 14-day isolation period for those who were suspected to have contact with COVID-19 patients. Various quarantine measures were announced by different countries in an attempt to restrict the spread of the virus ranging from ban on the operation of public transport and other crowded public places such as shopping malls, cinemas and worship centers among others. Prolonged lockdown and movement restriction had a negative impact on persons with hearing impairment mental health.

Salwa and Emad (2021) reported cases of divorces, unwanted pregnancy, domestic violence and negative manifestations of mental dysfunction during the period of COVID-19 among persons with hearing impairment. This was occasioned by confinement at home for an unexpected but extended period of time, the fear of job loss, and an impending economic crisis and media coverage which often persons with hearing impairment were not carried along. Cora Virus-induced changes, made persons with hearing impairment to go through stages of coping that must correspond to their characteristics. Unfortunately, COVID-19 pandemic made it difficult even to communicate with members of the deaf community as movement was restricted and the pandemic required a new vocabulary that is hitherto unknown in sign language thereby making public enlightenment difficult among persons with hearing impairment

The experience of past outbreak indicated that changes in the human psyche correlate with isolation. To be restricted in an environment during pandemic make individuals generally experience a range of negative emotions such as fear of their parents, siblings and other close relations and friends getting infected, aggression, anxiety, and fear of future chaos. One can only imagine the implication of this scenario on members of the deaf community. They suffer permanent stress during the period of the confinement as we;; as feelings of loneliness, and uncertainty. The situation was aggravated by not necessarily adequate information and awareness.

Hearing loss and its impact on oral communication can impair social interaction and thus lead to various types of mental disorder. COVID-19 has damaging impact on people with hearing impairment owing to sensory limitations to process information and express their feelings, members of the deaf community experience a wide range of psychological traits that make them more

vulnerable than their hearing peers. This has far-reaching consequences that are job-related and bother on social adaptation strategies.

Challenges of Persons with Hearing Impairment during COVID-19

Persons with hearing impairment are faced with the following challenges as COVID-19 continues to ravage according to Naami & Mfoafo-M'Carthy (2020):
Lack of proper sign language: A universal signing vocabulary does not exist for the new SARS-CoV-2 virus. Sign language is the first language understood by the deaf community. As per different levels of understanding, written language does not convey information and can perpetuate misinformation leading to misguided actions. During the COVID-19 era, touching the face and the mouth is discouraged to prevent the transmission of coronavirus. Due to this, the essence of sign language is lost, missing important information. The general population dealing with the deaf community is unaware of the sign language except for few close contacts and instructors. The frontline warriors providing essential services do not have time to learn a new language for helping the deaf community.

Sign language interpreters, familiar with the new vocabulary for the SARS-CoV-2 virus, should be there at all press releases and official government announcements regarding the pandemic. This will help the deaf and hearing-impaired population to understand the current scenario of the pandemic and preventive measures against the disease.

At press conferences, sign language interpreters are often the only persons without a face mask because sign language requires the use lips and facial expression when signing for persons with hearing impairment. It is recommended that a transparent screen may be provisioned for ensuring safety and providing unobstructed view to the hearing impaired to facilitate understanding of lip reading.

Deaf leaders and skilled interpreters approved by the deaf community can work together to provide "live interpretations" of news on their personal social media platforms.

Lack of communication with deaf children at home: At the peak of first and second wave of COVID-19, the country was locked down. This means students with disabilities generally were sent home amid the COVID-19 pandemic.

Meanwhile, most of the parents are unable to fully communicate with their deaf children because they are not fluent in sign language. It is likely that these children are experiencing confusion, anxiety, and depression due to the coronavirus scare and the absence of familiar environment due to the lockdown.

Appropriate arrangements should be made for deaf instructors and sign

language interpreters in schools who can conduct sign language classes on weekends for parents. They can provide guidance to the children's parents and children on how they could be prepared mentally and emotionally to deal with the pandemic. This can help the deaf students to continue the study at home. Instructors can train parents for using additional visual resources with their deaf children such as reading storybooks or doing hands-on activities using sign language.

People should be made aware of the availability of surgical masks with see-through window panel showing the wearer's mouth. Innovations are being provided through YouTube channels to create do-it-yourself masks with clear windows. These masks should be monitored for cost-effectiveness by the government.

Barriers related to health-care system: Hearing-impaired and deaf population face challenges due to lack of consultation with health-care providers, including testing for hearing as facilities are overwhelmed with COVID-19 and other emergency conditions. By extension, little or no attention is given towards addressing health challenges of individuals with hearing impairment. Further, there are restrictions on getting an interpreter or a family member to accompany them to health facility due to the lockdown measures. All these can lead to confusion and stress on the hearing impaired.

Assistive devices used by individuals hearing impairment need constant maintenance. Many people who wear hearing aids have damaged their devices or lost them because most masks are worn behind the ears. The lack of availability of services for fitting and maintenance of these devices plus lack of batteries are preexisting barriers in many low-income settings. Because of the movement restrictions imposed to curtail the spread of COVID pandemic, these services are shut, causing extreme inconvenience to the users.

Doffing for personal protective equipment (PPE) kits used by health-care personnel has strict protocols to be observed, which makes it difficult for personnel to doff the PPE for communication to address the problems of persons with hearing impairment. The long hours on queues seeking for medical consultation is enough frustration for persons with hearing impairment.

Implications for Equity and Inclusion

The principle of equity **relates to fairness**. The principle recognises that some persons are more disadvantaged than others in being able to access services and facilities. It is therefore a responsibility to address this lack of equity (Eloquent,

2020). On the other hand, disability inclusion entails understanding the relationship between the way people function and the extent they participate in the affairs of society and ensuring that everyone has equal opportunities to participate in every aspect of life to the best of their abilities and desires (National Center on Birth Defects and Developmental Disabilities, 2020).

Disability inclusion allows people with disabilities (PWDs) to benefit from the opportunities that are available for people without visible disability in the health promotion and prevention programs to experience same. This implies that activities must be outlined to ensure fairness and equal distribution of opportunities for all including individuals with hearing impairment all sectors of the society amidst COVID-19 pandemic. Specifically, COVID-19 has the following implications on persons with hearing impairment as discussed by :

Facemask: The new normal under COVID-19 pandemic is wearing facemasks to prevent disease transmission. As a result of this preventive measure, members of the deaf community feel excluded from full participation in most affairs of society. This is because persons with hearing impairment rely largely on sign language in combination of lips reading and facial expressions for full comprehension of what is being communicated. While, those with hearing aids or cochlear implants during rehabilitation rely on lips reading to better procession of sound and to comprehend what is being heard. Anyone with hearing impairment will have difficulty with muffled speech due to facemask. This implies that the use of face masks affect the extent to connect and relate with members of the deaf deaf community.

Facial masks worn by essential service workers, health functionaries, and public service providers pose a barrier for the hearing impaired in getting essential services such as groceries, health care and other essential public services.

Lack of information: Persons with hearing impairment are deprived of accurate and reliable information on COVID-19 due to lack of availability of sign language specialists during lockdown and inability to comprehend lips reading and facial expression due to masks in direct communication. The public should be aware of recognition, reporting, and containment of COVID-19 to bring the pandemic under control.

Social Distancing: The 6-feet recommendation for physical distancing during the pandemic poses a problem for the hard of hearing population due to inaudible voice, resulting in social isolation and mental health implications. Members of the

deaf community may not understand the verbal communication by the next person and hence may not reply to them, thereby creating a feeling of social isolation. A companion or a family member, familiar with the sign language, should be there as much as possible who will help in required situations to act as a mediator.

To avoid confusion on telephonic conversations due to persons with hearing impairment used to schedule appointments, shop for grocery and attend important meetings in person to avoid confusion through telephonic conversations due to hearing impairment. However, due to the lockdown and social distancing in the COVID-19 era, all activities need to be done through phones or online, which is affecting the social, mental, and work profiles of persons with hearing impairment.

Stigma and discrimination as a barrier: Persons with hearing impairment are most often isolated on the grounds of old age, lack of hearing, hearing aid use, and sign language. They are unable to participate in conversations due to stigma, making them feel lonely and socially excluded. The implications of this are chronic stress and depression. During the pandemic, lack of information, using face mask, and inaccessible health care for the hearing impaired can add on to the pre-existing stress, making their mental health more vulnerable.

The way forward

- Government needs develop guidelines for communication with health-care providers during the COVID-19 pandemic. A list of COVID-19 resources that are available for deaf and hearing-impaired individuals should be provided including linkage to health-care facilities for emergency consultations.
- Videos providing necessary information, signs, symptoms, preventive and control measures of COVID-19 at home need to be published in sign language by the government for individuals with hearing impairment.
- A telephone line dedicated to COVID-19 matters for persons with hearing impairment and user-friendly links on the Internet for obtaining timely information from medical experts.
- There is no special arrangement to offer accessible and appropriate services to the deaf population in health institutions. Deaf leaders and sing language interpreters need to work in synergy to create a community with interpreters who are willing to volunteer their interpreting services for members of the deaf community.
- There is need for an application (software) where an operator transcribes calls/texts to individuals with hearing impairment. This can help them to

communicate with members of the larger community.

Conclusion

The recommendations require urgent responses to the vulnerable members of the deaf community. in line with the the principles of equity and inclusion for PWDs, there is need for access to equitable and qualitative education and health services by all disability notwithstanding. COVID-19 is considered both a challenge and an opportunity to review and implement more inclusive legislation, policies and actions in all sectors. It is only within this framework that the core values of equality and inclusion can be ensured for PWDs.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

LIBERATING PERSONS WITH DISABILITY: THE ROLES OF ECONOMIC EMPOWERMENT OPPORTUNITIES IN NIGERIA

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Abstract
The paper looked at who persons living with disabilities are and gives justification as to why persons living with disabilities need to be economically empowered. It outlines several ways in which persons living with disabilities can be economically empowered through Community Based Rehabilitation (CBR), referring to examples used by many CBR programmes and other related programmes. It emphasizes on the importance of sensitizing the community including the labour market, to increase recognition of the capabilities of Persons Living with Disabilities (PWDS) and enhance their participation in the general economic life of the society. The paper also outlines some strategies and way forward on how to ensure sustainability of economic empowerment of PWDS which cannot be achieved without their active participation in the whole process.

Key Words: Liberation, Disabilities, Roles, Empowerment and Opportunity.

Introduction

Education is an instrument for empowering every citizen and is imperative for reducing poverty and enhancing livelihoods. Empowerment in this context has been viewed as a strategy for addressing the needsand demands of people living with disabilities in less-developed countries, it seems to be the most accepted approach. For a long time, it has been apparent that persons living with disabilities should have equal rights, which they should be allowed to enjoy in the same way as the rest of the population. The notion of human rights is clearly demonstrated in the joint position statement of 1994 from the various United Nations Organizations. World Health Organization, United Nation Education System Cooperation Organization and International Law Organization. (2014), disclosed empowerment as a strategy within community development for rehabilitation, equalization and social inclusion of all persons and adults living with disabilities. Empowerment opportunities can be implemented through the combined efforts of persons living with disabilities, and the appropriate health, education, vocational and social services. In fact, empowerment promotes not

only the rights of persons living with disabilities, but also seeks to create an environment where they can have equal opportunities with their "able-bodied" counterparts.

Disability is seen as a damage done to some organ(s) of the body such that the affected person has functional limitation, especially in carrying out some important routine activities of daily life. According to Huib, John & Victor (2013), disability indicates the lack of power or ability to do something. It is usually regarded as a negative attribute. Disability in the World Health Organization classification system denotes consequences of impairments in terms of functional, performance and activities by the individual. Thus, an impairment is any loss or abnormality of psychological, physiological, or anatomical structure or function. Disability refers to excesses ordeficiencies of customarily expected activities, performance, and behaviour (Edu, 2016). In fact, persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others'. This explanation of PWDsreflects the social model of disability in which disability is perceived as a complex collection of conditions, many of which are created by the social environment rather than an attribute of the individual.

Disability affects hundreds of millions of families in developing countries. Currently, about 10% of the world's total population or roughly 650 million people live with a disability. For every child killed in warfare, three are injured and acquire a permanent form of disability; in some countries, up to a quarter of disabilities result from injury and violence. 80% of the persons living with disabilities live in developing countries (WHO, 2016). Persons living with disabilities include the hearing impaired, the physically impaired, the visually impaired, those with learning disabilities or intellectual disabilities, people with multiple disabilities, etc and they are the very persons that need economic empowerment opportunity.

Concept of Economic Empowerment of Persons with Disabilities

Economic empowerment is 'an ongoing process' which enables an individual to fulfil and be accountable for his or her duties and responsibilities and protect his or her rights in society. It is the process through which PWDs can develop the skills to take control of all aspects of their lives and their environment and includes confidence building, insight and the development of personal skills. Economic empowerment isa concept within general community development for the rehabilitation, equalization ofopportunities and social inclusion of persons with disabilities themselves, their families, organizations, communities and the relevant governmental and non-governmental health, education, vocational,

social and other services (WHO, 2014). It therefore involves providing PWDs the resources, opportunities, knowledge and skills needed to increase their capacity to determine their own future and fully participate in community life. The empowerment of PWDs is vital to enable them to take their place in the wider society.

It therefore involves affording PWDsa variety of opportunities to discover themselves, understand their environment, be aware of their rights, take control of their lives and partake in important decisions that lead to their destiny. It also involves providing them with the resources, prospects, knowledge and skills to fend for themselves and to be an integral part of their society. Thus, the economic empowerment of PWDs involves ensuring that they are given the opportunity to earn a living to sustain themselves. It involves addressing employment issues as well as other issues that amplify the cycle of disability, poverty and the exclusion of PWDs. In other words, like every other person, PWDs must be regarded as equal before the law and must be given equal chances and opportunities to better themselves through employment, education, and such without discrimination.

Thus, economic empowerment of PWDs is clearly an approach towards developing a more inclusive society. As such it requires efforts from all spheres of life and sectors to become inclusive and ensure the full participation of persons living with disabilities. Thus empowerment needs a strong multi-sectorial focus, as disability is a cross-cutting development issue. Furthermore, it means that in order to make economic empowerment a success, all professional training should have a disability success, all professional training should have a disability awareness components in it. Huib, John & Victor (2013) stress that in practice, it would mean that the health sector should be made aware of the needs and demands of PWDs; the educational sector should become inclusive to PWDs; the social sector should focus their work on the acceptance and participation of PWDs; the social sector should focus their work on the acceptance and participation of PWDs; the livelihood sector should ensure that PWDs enjoy the same entitlement and access to work and employment as every other citizenand economic empowerment of PWDs should become a deliberate strategy to enable PWDs to live a life equally as their non-disabled peers.

Economic empowerment on the other hand as, Helander (2013) opined as "an on-going process, which enables an individual to fulfil and be accountable for his/her duties, responsibilities and protect his/her rights in the society. Part of the process is to provide PWDs the resources, opportunities, knowledge and skills needed to increase their capacity to determine their own future and fully participate in community life. In fact, economic empowerment of PWDs therefore, refers to giving them a variety of opportunities to discover themselves, understand their environment, be aware of their rights, take control of their lives

and partake in important decisions that leads to their destiny.

Economic empowerment is associated with several activities concerned with the establishment and operation of a business enterprise. Allawad (2017) opined that entrepreneurship is the activity which involves evaluating business opportunities, development of a business plan and determination of the required resources as well as management of resulting enterprise. It can also be seen as a new way of developing a business plan for PWDs better than its usual way. Edu (2016) view economic empowerment education for PWDs as a programme that is tailored to job seekers, unemployed people and a scientist, engineers and researchers to encourage them to commercialize the intellectual property. In fact all the above mentioned can enhance and liberate the life of persons with disabilities. Furthermore, empowerment through education is often linked in a chain of support offered to those who decide to explore self- employment and establish a small or large enterprise. This type of education is for both individual living with disabilities or able body. Akponmi (2018) avowed that it is pertinent to expose all learners to empowerment education since this form of education of PWDs can be learned, practiced and developed. However, empowerment skills and attitudes provide benefits to society even beyond their application to business activities can be useful to persons living with disabilities in their daily responsibilities and business skills need to be provided to those special needs persons who choose to be self-employed or start their own ventures (Edu, 2016).

Importance of Economic Empowerment of Persons with Disabilities

Findings from a recent study on the "impact of services for PWDs on Economic empowerment reveals that PWDs suffer various forms of barriers including' access to empowerment, obtaining appropriate work, retaining work, receiving appropriate wages, discriminating attitude, appropriate skills, lack of educational qualification, inaccessible environment and transport system (Momin, 2014).

WHO, UNESCO &LlO (2014) observe that, "there is a strong correlation between disability and poverty. Poverty leads to increased disability and disability, in turn leads to increased poverty". When economic empowerment comes to stay in life of persons living with disabilities poverty and increase of people with stabilities will drastically reduce. In fact the effect of poverty on people living with disabilities is unbelievably huge and devastating. The Department for International Development (DFID) (2020) states that 50% disabilities cases are preventable and directly linked to poverty. Narayan and Petesch (2012) observed that, "poverty violates the fundamental human rights of PWDs depriving them of the basic necessities of life including, health, education, safe drinking water, food, shelter and clothing including means of livelihood.

"When they are economically empowered they will meet the needs of the above mentioned. PWDs need economic empowerment in areas of Agricultural science, vocational training and the like in order to live a better and fruitful life in the society.

Empowering PWDs economically is very vital because it will enable them to live a normal life and they can also contribute significantly to the development of the nation. Research shows that majority of persons living with disabilities are unemployed, andoften denied employment opportunities even when they have met the necessary requirements. Consequently they have no stable income and have to depend on the mercy of family members, well-wishers and charity groups for handouts to sustain their livelihood. International instruments, like the convention on Human Rights and Rights of the Child; ILO convention No. 159 on national policy for employment of PWDs, and the UN Standard rules on Equalization of Opportunities for PWDs, are practically ignored by most governments in Africa. As such, PWDs continue to suffer increased "discrimination", marginalization and oppression" (Onota, 2013; Akintaro, 2014) from the so-called able-bodied opportunists. Omubene, (2012) argues that such manifestations of negative societal attitudes suffered by PWDs creates animosity, engenders resentment and stifles initiatives and creativity". These attitudinal and environmental barriers tend to limit their abilities to participate effectively in economic activities. PWDs have great potentials that could be tapped and harnessed for community development, given appropriate opportunities, attitude, and approach.

The challenges lies with Community Base Rehabilitation (CBR) progammes as grassroots services providers and change agents. Coleridge (2013), Rifkin & Pridmore (2015) suggested that is high time that the "powerless" be liberated and given the opportunities to gain experience and confidence needed to influence the decisions that affect their own daily lives:, to discover and choose the path leading to their destinies, take control of their lives and make their contributions towards the development of their communities.

Strategies for Ensuring Economic Empowerment Opportunities of PWDs in Nigeria

The main ways to achieve successful economic empowerment **opportunities** of PWDs are discussed below:

Providing Educational Opportunities: Education is a powerful tool for economic empowerment of PWDs. Rifkin &Pridmore (2015), support this fact when they stated that "Information is power". PWDs can gain knowledge and skills needed to perform functions, tasks or carry out some socio-economic activities for

personal and community development. Education for empowerment should start from pre-school to adulthood. Economic empowerment programme should not underestimate the importance of pre-school skills like; speech, sign language, sorting/measuring, orientation and mobility, use of tools, daily living skills etc taught to children at pre-school stage. By teaching such skills, we are already preparing them for the future. Early pre-vocational skills training like farming, welding, shoe making, computer training, sewing, knitting and the likes will increase self-confidence, raise self-esteem and perfection which enhance effective task performance during future working life. Nigeria, like many African countries has limited number of inclusive schools offering special needs education and training in vocational skills. The very few existing ones do not have appropriate curricula that provide for the special needs of PWDs. Empowerment programmes and relevant government services need to support PWD's in schools with necessary assistive devices like hearing aids, talking calculators, mobility aids, provide learning materials/equipment, as well as encourage disability friendly school environment.

In fact, empowerment through education cannot be achieved only by training PWDs alone: it is also important to build capacity of the rehabilitation professionals working with them. However, to determine the effectiveness of these training or determine the needs to increase evaluation of impact of services provided by staff who benefit from trainings, especially how the negative attitudes are changed and the economic status of PWD's are improved Breisacher (2012) maintained that in-service training for PWD's under open employment gives them full qualification for favourable competition with able- bodied persons, and can also help them in retaining their jobs, thereby stabilizing their income.

Providing Employment Opportunities: Article 23(1) of universal Declaration of human rights by UN states that; everyone has theright to work, to free choice of employment, to just and favourable conditions or work and to protection against unemployment rate. In fact, unemployment rate among PWD's, in the developing world is an overwhelming problem up to 80% in some countries (LLO, 2013). Caswell (2013), observes that even though there exists legislation for quota system favouring unemployment of PWD's, unfortunately, this legislation is either underutilized or not enforced. In fact, many PWD's are well educated and have brilliant ideas to contribute towards development of their communities and indeed their nation, through public services; but generally they are not allowed the opportunity to do so due to their disabilities in the planning and implementation process. If PWD's have to be involved, then they must be fully represented by way of employment in all government ministries and offices. However, most

government and some NGO's in Africa do to some extent provide sheltered employment for PWD's although social exclusion, increase stigma and denies them their rights to equal employment opportunities as enjoyed by able-bodied persons.

Daniel & Sevin (2016) advocated that empowerment should facilitate employment of persons living with disabilities in leadership positions to enable them take advantage of such opportunities to develop themselves and use their initiatives in handling their responsibilities. Employers should also allow PWD's to join labour unions to enable them express their views and feelings concerning general problems and issues affecting their lives. Empowerment programmes can encourage open employment of PWD's through creating awareness on the need for equal opportunities for PWD's, educating the public on their political process by forming pressure groups capable of influencing government policies.

Self-Directed Employment: Self-directed employment is an option that is increasing interest of people living with disabilities both in economically developed and developing countries. This could be a strong tool for economic empowerment of people living with disabilities; not only because they take the initiative, but also because they play a leading role in their structural set up and day to day decision making and management process, and working in cooperative controlled by special needs persons. Albright (2013) supports self-directed efforts as an effective tool for empowerment and development. He further stated that: "Man can only liberate himself or develop himself. He cannot be liberated or developed by another. For man makes himself. It is his ability to act deliberately for self-determined purposes which distinguishes him from animals."The expansion of his consciousness and his society must therefore ultimately be what we mean by development. Empowerment programmes should encourage similar initiatives in other developing countries to enhance PWD's.

Providing Opportunities for Financial Resources: In an attempt to empower persons living with disabilities economically, it is not adequate for empowerment programmes to stop at "teaching them how to fish" without arming them with the necessary equipment that they need to use in "catching fish". PWD's who have successfully graduated from vocational training and have not been able to secure wage-earning generation activities in order to earn a living. Daniel &Sevin (2016) reported that in Nigeria, services for persons living with disabilities gave soft loans to 40 persons in 2003 under its Revolving loan funds. Loans ranged from ₦1, 000 to ₦50, 000. Loans are determined by the client's disability condition, nature of the business and economic situation of the PWD's/family among other requirements. Fact finding from world survey conducted by CBMI to determine

the success and failure of vocational training and livelihood programmes confirm that PWD's supported with both grant and loans are likely to succeed better than those who only have access to loans (Caswell, 2013). PWD's also need technical support for empowerment programmes in order to succeed.

Areas of support include: Elaborate business plan, teach basic book keeping, monitor progress, evaluate execution and advise in areas that need to be improved upon. PWD's should be encouraged to cultivate the habit of saving, either with the programmesor with local community banks; this provides relief in times of any hiccups, helps in case of expansion and raising the status of PWD's (Malcolm, 2016). In realization of the importance of economic integration programmes for the empowerment of PWD's and the challenges that exist in running them, CBMI recommends the training of specialist supervisors for all CBMI-supported empowerment programmes. The invaluable support of such supervisors can enhance the management of the programmes.

Recommendations

Based on the above discussed in the process of liberating persons with disabilities, the following recommendations were made:

1. Governmentshould develop policies and structure that support and complement empowerment programmes. Provision of an environment that enables partnerships between different levels in the same area of services as well as linkages between different services is essential in empowering persons living with disabilities.
2. Government should involve more persons with disabilities into its Npower programmes, small and medium empowerment scale, FADAMA programmes, N-Agro programmes, soft loan programmes and many other programmes that will empower the general public.
3. The number of service providers complementary to empowerment need to be increased. To achieve this, training of mid-level cadres has to be intensified, and training be provided with an appropriate mind set, emphasizing collaboration and adaptation to community set-up rather than a sterile opposition between specialist and grassroots approaches. Innovative ways of training therefore need to be introduced, enabling flexibility: for example, consideration has to be given to more modular courses. This allows continuous professional growth over a period of time while working.
4. Emphasis has to be placed on the persons living with disability in a way that empowers him/her to make decisions and gain autonomy. If programmes are person centered and the aim is to offer services tailored to each person, partnership building will become necessary. Thus, Specialists whether

providing health- related support, counselling or educational services, need to recognize that there is a continuum of services that do not end at a clinic, a school or an office, DPOs and family members.

5. Increase financial support for economic integration activities, increase public awareness on capabilities and possibilities of PWD's encourage capacity building of PWDs.
6. Encourage utilization of locally existing related services e.g.; community banks, vocational training centersetc encourage innovations.
7. Encourage monitoring, evaluation and research, encourage participation of the civil society organization (CSO) in planning and implementation of government economic policies. This can be achieved through holding consultative forums.

Conclusion

Economic empowerment of PWD's is very crucial in raising their status. However, this cannot be achieved without the involvement and participation of all stakeholders; the government, members of the community, the labour market and PWD's themselves. Empowerment programmes need to increase sensitization of the public on disability issues and rights of PWD's. Also innovation and increased support for economic integration activities is necessary; as well as implementation of realistic and results oriented plans in order to achieve successful empowerment of PWD's. In conclusion, the ability of PWD's to earn a living for themselves, rather than depending on others for a living is a cornerstone for their economic empowerment. It is important for PWD's to have a sustained economic power in order to meet their essential needs and contribute towards community development.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

DIAGNOSTIC MASKING OF HEARING DEFECTS IN INTELLECTUAL DISABILITY: IMPLICATION FOR COMPLEMENTARY AUDIO-VISUAL INSTRUCTIONAL SUPORT IN OYO STATE, NIGERIA

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Abstract
Despite the growing realization of the high prevalence of children with intellectual disability having comorbid hearing impairment, the auditory needs of these children are continually neglected in classroom instructional delivery. This study investigated available audio-visual instructional support for children with intellectual disability having comorbid hearing impairment. A survey of 115 purposively selected teachers in special schools was adopted for the study. Two research questions were raised to guide the study. An instrument of 18 items with reliability coefficients of 0.88 to 0.89 was used to ask teachers to rate how often they use 21st century audio-visual instructional support for children with intellectual disability having hearing impairment. The data collected were statistically analyzed using percentage count and regression analysis. The findings revealed that teachers do not use complementary audio-visual instructional support for children with intellectual disability having hearing impairment. Also, total communication makes significant contribution to effective classroom accommodation for children with intellectual disability having comorbid hearing impairment. It was recommended among others that there should be combined efforts of government and schools to design hearing screening services for all children with intellectual disability to determine eligibility for auditory support programmes.

Keyword: Diagnostic masking, hearing defects, classroom audio-visuals, intellectual disability

Background of the Study

The overwhelming effects of severe cognitive deficits in children with intellectual disability which often affect a wide range of major domains such as the intellectual functioning, social and adaptive behaviour sometimes overshadow or mask other sensory defects like hearing impairment inchildren with intellectual disability. This is much evident and true in Nigeria context where children with recognized cognitive, social, behavioural and sensory discrepancies are just

hurled into special education classrooms without proper special education processes to determine the eligibility of the child and what services and programmes the child may need to learn effectively (Dele & Tope, 2019). As such, even children with comorbid intellectual disability and hearing impairment who could benefit greatly from classroom instruction are left unattended to or just given a watered down curriculum without trying to provide for the child's hearing impairment through a range of complementary resources and instructional approaches. This consistently frustrates both the valued instructional efforts of teachers and the achievement of curriculum goals for these children.

The prevalence of hearing impairment is at least 40 times higher in people with intellectual disability compared with the general population (Carvill, 2011). In addition to developing conductive/sensorineural hearing loss, people with intellectual disability may also have central (cortical) auditory processing problems. WHO (2011) states that people with intellectual disability usually have multiple problems. To describe these problems adequately it is usually necessary to use several diagnoses taken from different parts of the classification. Undetected/untreated hearing loss imposes significant limitations upon individuals with intellectual disabilities (ID). It interferes with the already lagging cognitive development, impedes communicative and social interactions, and limits educational and vocational aspirations.

Difficulty in accessing generic services and the deficits in language and communication skills found in this population make the assessment of sensory impairment a challenge. In practice, diagnostic masking can occurs, with changes in behaviour are attributed to intellectual disability rather than to hearing impairment (Hull, 2016). Hearing defects in most children with ID in Nigerian classrooms are under diagnosed or misdiagnosed and consequently given wrong placement in the school system. Thus, the individual may receive inappropriate treatment that does not address the underlying problem. It is the observed that there is tendency for school assessors and classroom teachers to overlook symptoms of a compromised hearing health in these children; and instead trace these symptoms to the child's underlying intellectual disability. Teachers may perceive a person to be non-cooperative when in reality they cannot hear properly. The failure to recognize such double needs often technically stems more from the assessor's perception of the child's cognitive disability than from the difficulty inherent in sorting out multiple disabilities. Multiple studies consistently support the view that overshadowing is a common school teachers' bias occurring during classroom instruction for children with concomitant ID and hearing defects (Volleiy&Nunto, 2016).

Professional literature reports increased prevalence of hearing loss for people with intellectual disability compared to their general-population peers. It also reflects undetected hearing loss for individuals with ID, along with undertreated and unserved experiences once hearing loss is identified. The hearing health of children with intellectual disability has received considerable attention in published reports, and some studies have examined the hearing status of children with ID in classrooms for the purpose of providing need-based accommodations (Herer, 2012). Thus, it is important that the Nigerian educational system steps up its multidimensional assessment of children with intellectual disability to ensure that these children are given need-base classroom instructional supports.

Most people with intellectual disability with congenital hearing loss use a very simple version of sign language. Some of which have basic sign language vocabulary and structure. The Picture Exchange Communication System (PECS) can also be used to facilitate service users' autonomy by showing pictures of the items they need (**Reza & Miller, 2010)**. Thus, it might be important for classroom teachers to be ingenious both in observation and classroom practices to use adequate audio-visual instructional support or and total communication approaches in teaching children with intellectual disability to help to make up for the diagnostic biases that typify special education processes in Nigeria.

Therefore, total communication (TC) is philosophy of educating children with hearing problems that incorporates all means of communication; formal signs, natural gestures, finger spelling, body language, listening, lip-reading and speech. Also, closely related is audio-visual sensory support which is a procedure where classroom instructional communication is offered in a complementary manner to appeal to both sight and hearing at the same time. Children in total communication and or audio-visual sensory programmes typically wear hearing aids or cochlear implants. The goal is to optimize language development while providing curricula contents in most appropriate ways for optimum learning outcome (Hands and Voices, 2010). Its purpose is to provide each child with the communication tools needed for that child to develop language and social competence. This ought to continue to be the goal of every teacher for every child with intellectual disability who may have concomitant hearing defects.

The current classroom instructional practices for children with intellectual disability with associated hearing problems have become of much scientific and social value to researchers and parents alike. Thus, the purpose of this paper is to investigate the available classroom audio-visual instructional support for intellectually disabled children with compromise hearing health.

Statement of the Problem

Experience, researches and parents continue to provide strong evidence that children even mild with intellectual disability consistently perform academically and socially below the expected functional capacity and curriculum goals. Sequel to this, strong evidence suggest that because of the high incidence of its comorbidity with hearing impairment, adequate audio-visual instructional support to provide for associated hearing impairments is not adequately provided rather emphasis is on only intellectual functioning. With the claim that if there is improved intellectual functioning every other area of deficits will automatically improve. Thus, parents and researchers are keen to know the available audio-visual instructional support used by teachers to meet the hearing needs of children intellectual disability having hearing impairment.

It is as a result of this academic injustice that inspired the curiosity to investigate the audio-visual sensory instructional support available for children with intellectual disability having comorbid hearing impairment. Therefore, the problem of the study is what classroom audio-visual instructional support are available for children with intellectual disability having comorbid hearing impairment?

Purpose of the study

The objectives of this study to investigate:

1. The available audio-visual instructional support for children with intellectual disability having comorbid hearing impairment.
2. The relative contribution of total communication and nonvisual support approaches to classroom accommodation for children with intellectual disability having comorbid hearing impairment.

Research questions

In order to achieve the objectives of this study, the following research questions were posed:

1. What complementary audio-visual instructional support are adopted for children with intellectual disability having comorbid hearing impairment?
2. What is the relative contribution of total communication and nonvisual support approaches to effective classroom teachingof children with intellectual disability having comorbid hearing impairment?

Methodology

The study adopted a survey research design. Purposive sampling technique

was used to sample 115 special education teachers having learners with intellectual disability in their classrooms. A self-developed 18 item 4 points scale was used, of which 8 items were designed to ask teachers to rate the extent to which they use key best audio-visual instructional accommodations for children with intellectual disability having comorbid hearing deficits in the classroom. The other 10 items were used find out the extent to which total communication and nonvisual support approaches are effective in classroom teaching of children with intellectual disability having comorbid hearing impairment.

The instrument was validated with reliability coefficients ranging from 0.88 to 0.89 were administered to the 115 respondents. Two research questions were posed to achieve the objectives of the study. The data collected were statistically analyzed descriptively using percentage count and regression analysis at 0.05 level of significance.

Results

Research question 1: What complementary audio-visual instructional support are adopted for children with intellectual disability having comorbid hearing impairment?

Table 1: Available complementary audio-visual classroom instructional support

		Never → Always				
S/No	Items	0	1	**2**	**3**	**4**
1	Total communication	N=103	N=9	N=3	0	0
		89.6%	7.8%	2.6%	-	-
2	Intensive interaction	N=109	N=3	N=3	0	0
		94.8%	2.6%	2.6%	-	-
3	Soundproof classrooms	N=112	N=1	N=2	0	0
		97.4%	0.9%	1.7%	-	-
4	Preferential seating and lighting	N=15	N=19	N=39	N=36	N=6
		13%	16.5%	33.9%	31%	5%
5	Assistive listening devices	N=111	N=4	0	0	0
		96.5%	3.5%	-	-	-
6	Visual Presentation of Materials	N=12	N=27	N=41	N=32	N=3
		10.4%	23.5%	35.7%	27.8%	2.6%
7	Auditory sandwich	N=110	N=2	N=2	N=1	0
		95.7%	1.7%	1.7%	0.9%	-
8	Acoustic Highlighting	N=108	N=5	N=1	N=1	0
		93.9%	4.3%	0.9%	0.9%	-

The Table 1 above shows the response of teachers of children with intellectual disability on the frequency they use the understudied audio-visual classroom accommodations for children with intellectual disability having comorbid hearing impairment. The responses indicate that over 89% of teachers of these children do not employ total communication for instructional delivery in the classroom. Also, the responses reveal that over 94% of teachers of children with intellectual disability having comorbid hearing defects do not use intensive interaction during classroom instructional delivery.

Also, over 97% of teachers agreed that they do not ensure as a matter of pedagogical practice that unnecessary sounds do not disrupt classroom teaching by using soundproof classroom. Fortunately, only about 13% of teachers do not adopt preferential seating and lighting approaches to provide auditory needsof children with intellectual disability having comorbid hearing problems. About 87% adopt these to ensure classroom auditory and visual support. Though, assistive listening devices are outside the domain of the classroom teachers but having over 96% of teachers whose classroom children do not have these aids reveals how much their auditory needs are neglected. Desirably, only about 10% of teachers of these children agreed that they do not use audio-visual materials in classroom presentations. Visual presentation of materials is beneficial in meeting the sensory needs of children with intellectual disability.

Unfortunately, over 95% of teachers do not adopt auditory sandwich in classroom instructional delivery. Similarly near 94% of teachers of these children do not use acoustic highlighting in teaching.

Research question 2: What is the relative contribution of total communication and nonvisual support approaches to effective classroom teaching of children with intellectual disability having comorbid hearing impairment?

Table 2: Summary of multiple regression analysis showing relative contribution of total communication and nonvisual support approaches to effective classroom accommodation for children with intellectual disability having comorbid hearing impairment

Variable	Unstandardized Coefficients		Standardized Coefficients		
Model	(B)	Std. Error	Beta	T	Sig.
Constant	17.461	.546	-	21.577	.000
Total communication	.909	.058	.721	25.149	.000
Nonvisual support approaches	.111	.002	.001	9.238	.000

Table 2 reveals that total communication unlike nonvisual support approaches contributes significantly to effective classroom teachingof children with intellectual disability having comorbid hearing impairment expressed as beta weights. Using the standardized regression coefficient to determine the relative contribution of the variables, total communication ($\beta = 0.721$, $t=25.149$, $p<0.05$) indicates a potent contributor to effective teaching, while nonvisual support approaches ($\beta = 0.001$, $t=9.238$, $p>0.05$). This implies that while total communication contributes significantly to effective classroom teaching; whilenonvisual support approaches do not have any significant contribution to effective classroom teaching of children with intellectual disability having comorbid hearing impairment.

Discussion of Findings

The research findings have shown that there is little or no available audio-visual classroom instructional support for children with intellectual disability having comorbid hearing defects. The findings show that over 89% of teachers in the current study do not employ total communication in teaching these children. Research by Collette and Ruil (2020) provides evidence that teaching methods that adopt verbal language support to speech such as formal signs, natural gestures, fingerspelling, body language and lip-reading are crucially needed to meet the both intellectual and auditory needs of children with intellectual disability having

compromised hearing. Lack of such practices by teachers in the current study may probably be because of the limited knowledge of teachers on co-occurrence of intellectual disability and hearing deficits. The findings of the current study also corroborate the position of Yate and Bole (2018) which states the many educators are not equipped with 21st century pedagogical practices such as intensive interaction and auditory sandwich to help the majority of children with intellectual disability who may have hearing impairment to benefit from classroom instruction.

The findings of the current study show that over 93% of teachers of children with intellectual disability having comorbid hearing defects do not use intensive interaction, auditory sandwich and acoustic highlighting during classroom instructional delivery. Intensive interaction approaches such as using touch, stimulating sensory toys, enunciating syllables and words within close range hold potential to help these dual struggling learners to learn better. Also, auditory sandwich is not used in the classroom. This might in part due to limited knowledge on it use. It is important that for these category of children, information is presented through listening before the introduction of visual or other support information is given to a child. *Auditory sandwich*is based on the premise that children with this comorbid condition need to learn to trust their hearing and rely on auditory input to learn spoken language (Yate & Bole, 2018).

The findings of the current study also suggest that limited knowledge of the comorbidity and lack of training of teachers on acoustic highlighting may be the reason for such low utilization in the classroom. Interestingly, for every child with intellectual disability, it is important that teachers emphasize specific words (sounding it louder) when saying a phrase or sentence to make it stand out from the rest of the message. Similarly, the findings of the current study revealed that classrooms for children with intellectual disability having hearing impairment are not soundproof or low noise and hearing aids are not provided.

These findings are similar to Goge (2017) who reported that lack of hearing aids and noisy classrooms for children with intellectual disability who are already prone to compromised hearing. While soundproof classrooms are architectural and administrative provisions, and assistive listening devices are outside the domain of teachers, teachers also have ingenious ways of keeping out unnecessary noise interference in classroom instructions. Thus, preferential seating and lighting as well as visual presentation of learning materials help to some extent where there is lack of soundproof classrooms and hearing aids (Goge, 2017). Fortunately, the findings of the current study showed that over 80% of teachers adopt these practices but it is not clear whether or not they adopt these approaches

in response to the diagnosis of comorbid intellectual disability and hearing impairment.

The current findings are in agreement with (Alkhalhi, 2016) which reveals that total communication contributes significantly to effective classroom teaching for children with intellectual disability having comorbid hearing impairment. Conversely, the current study did not support the use of nonvisual support approaches (abstract verbal presentations, reading) as a way of meeting the auditory needs of children with intellectual disability who already have high risk of compromised hearing in addition to language acquisition problems.

Conclusion

The provision of effective instructional support for children with intellectual disability who also have hearing impairment is a continuing challenge for intellectual disability services. Most professionals lack knowledge and skills not only in the observational assessment but also in the classroom instructional management of this population of learners. Resources are sparse and there are limited numbers of specialist services to address this group's needs. Providing adequate and appropriate accommodations for students with hearing loss in the classroom is not easily accomplished; accommodations require time, money, expertise, and institutional support to be implemented well.

Hearing impairment has significant detrimental impact on sociocognitive and language development. Despite this, it is very much underrecognised and underdiagnosed in people with intellectual disability. Raising awareness of hearing impairment among professionals and carers is extremely important for early management to prevent further social handicap in people with intellectual disability.

Recommendations

Based on the findings of the study, the authors recommended that:

i. There should be combined efforts of government and schools to design hearing screening services for all children with intellectual disability to determine eligibility for auditory support programmes.
ii. Government and schools should provide in-service training for teachers on total communication and other audio-visual approaches to equip them with 21st century knowledge on classroom pedagogies for children with intellectual disability having comorbid hearing impairment.
iii. Government should support schools and parents not only in the hearing screening for all children with intellectual disability but also in the provision of hearing aids and good classroom environments for effective learning.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

ASSESSMENT OF COGNITIVE AND PSYCHOCULTURAL IMPACT OF COMMUNICATION BARRIER ON DEAF ADULTS' CONTENT OF SPEECH IN CALABAR EDUCATION ZONE

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Abstract
The researcher of this study conceptualised that a deaf person communicating with a hearing person is not only dealing with physical but also, a cultural barrier. This article examines the problems resulting from deaf people's inability to communicate effectively across these barriers. The main aim of the paper is to find out the cognitive and psychocultural impact of communication Barriers on deaf adults' content of Speech. The study is an ex-post factor design that adopted 32 participants in all the local governments in Calabar educational zone. The participants had hearing losses ranging from mild to profound. Some participants had hearing parents while others were deaf. Data were collected by the researcher and sign language interpreter through the use of a questionnaire. Data collected were subjected to testing using population t-test statistical analysis at .05 level of significance. The result of the study indicates that the cognitive and psychocultural impact of communication barriers on deaf adults' content of speech is significantly high and that these barriers create severe problems in the areas of education, emotions, and culture. The study suggested that signing is of significant importance to breaking the barriers leading to deaf people's development in cognitive, affective, social, and cultural functioning.

Keywords: Communication barrier; Deaf person; Speech

Introduction

Communication is the process of creating, transmitting and interpreting ideas, facts, information, thought, emotion, feelings, etc. between individuals or groups. The shared contents can be verbal or nonverbal, formal or non-formal;as long as there is a transition of a thoughtful idea, gesture, action, etc. such that both parties (sender and receiver) can understand, there is communication. In a real-time situation, the presence of the receiver is not imperative for communication to take place. This is so because there isa different medium to which information can be transmitted to the receiver. communication can occur across **vast** distances in time and space. The communication process is complete once the receiver has

understood the message of the sender. This understanding is evident through feedback.

Scholars have stated that effective communication is vital in all facets of life; work environment, education, family, friendship, etc. (Hargie, 2016; Jenaibi, 2010; White, Vanc, and Stafford, 2010;Barbato, Graham, Perse 2003; Runcan, Constantineanu, Ielics, Popa, 2012).Communication skills thus become one of required soft skills in modern complex society. It is agreeable by many that communication between two individuals should be simple. One key element is the ability to differentiate between talking and communicating. Communicating involved being successful in getting a point across to another person whereas, talking in most cases bared communication flows, thereby erecting barriers that hinder effective communication ability. Rani(2016) listed such barriers to include; attitudinal, behavioural, cultural, language,and environment. in addition to Rani's view. other barriers to effective communications may include; message overload, system design, individual linguistic ability, physiological, ability to organize thoughts before sharing; physical barriers, psychosocial barriers. biological, semantic or language barriers, emotional, socio-psychological, andcross-cultural barriers.

The communication difficulties of deaf people often begin at birth. According to Dube (1996) and Moores (1996),approximately 90% of deaf individuals are born to normal hearing parents. Deaf infants tend to progress through the normal stages of language development until approximately one year of age and they remain unexposed to language until their deafness is diagnosed and they become involved in an early intervention program. Despite the remediation programme, it is uncertain whether language deficit can be completely mediated. This is particularly worrisome when such children have little or no linguistic exposure. With the diagnosis of any form of hearing impairment, parents are left with no option but to use sign language as a means of communication. The aim is to help the child in learning and developing language skills much the same way with the normal hearing child.

Nevertheless, for the parent to become affluent sign language users, several years of intensive instruction and practice is required. In most cases, parents are unable to use sign language in communicating with their child, hence leaving such child unattended. Communication in the family circle with the deaf child, in this case, become more diffic ult because children learn a language when they are continually surrounded by fluent language users who model appropriate language patterns and vocabulary usage. Apparently, many parents have tremendously devoted time and are able to meet up with the challenges of learning

sing language. Yet, the majority of deaf children with hearing parents are only exposed to sign language teachers or interpreters at school and modelled after them.

For the deaf children who found themselves in high institutions, studies have shown that the cumulative lack of language learning makes them graduate from high school with a reading level of approximately that of a fourth grade (Rani 2016). Moreover, the author further found out that the literacy rates generally vary according to the amount of hearing loss: the greater the hearing loss, the lower the literacy rate (Rani, 2016). This is because language extends beyond cognition and memory manifesting to affective ability, social or pragmatic function. For a child to develop normally and discover the world, language is necessarily needed. As noted by Marschark, Lang, and Albertini (2006), deaf children are not completely exposed to communication until after they have passed the critical period(i.e infant language development periods). This could be the reason why deaf children of deaf parents have fewer problems in development and learning compared to deaf children of hearing parents. Studies by Koester (1994) and Swisher (1984) also shows that early deaf signers are emotionally better adapted and, on the whole, have a socially better relationship with their signing peers and parents, and academically do better, compared with deaf oral children of similar hearing loss. It is also worthy of note that deaf parents use different visual and tactile strategies in order to have effective communication with their children, but the hearing parents do not know about the strategies and cannot produce them naturally. Therefore, Harris, Mohay (1997); Hart, Risley (1995) and Meadow-Orlans, Steinberg (1993) argue that deafness and inability to speak does not lead to a delay in development. The authors maintain that the main cause of the delay is that parents and children cannot communicate effectively. The effect of this communication barrier is noted by Marschark M, Lang H, Albertini J (2006). The authors maintained that personal communication has a great effect on different aspects of life including cognitive, emotional, educational, language development, literacy, and general academic ability

People with hearing impairment or hard of hearing seem to be more affected by the communication barriers than those with normal hearing. They tend to dislike interaction with significant others due to their inability to understand one another. Their disabilities also create a barrier to effective communication. The situation becomes worrisome when such a condition is accompanied by any form of physical defects in one's body part. Semantic barriers are also inevitable as some parents, caregivers and insignificant others may not be able to use the American sign language in formal settings. Such barriers arise during the process of

encoding and/or decoding the message into words and ideas respectively. This is true because the sign used in American sign language is different from that used in the local sign language. Other significant barriers to communication with the deaf/hard of hearing include but are not limited to misinterpretation of words, use of technical language like computer jargon. This study was conducted in order to determine in detail the communication barriers faced by deaf people and the impact of these barrierson their cognitive and psychocultural development of the deaf. The problem of the study is stated in question form thus: to what extent does the communication barrier affect the cognitive and psychocultural development of the deaf individual?

Purpose of the Study

The main purpose of this study was to assess theimpact of communication barriers on cognitive and psychocultural features of deaf adults' content of speech in Calabar education zone. The study specifically sought to assess theimpact of:

1. Communication barriers on working memory of deaf adult contents of speech,
2. Communication barriers on anxiety in deaf adult content of speech.
3. Communication barrier on attitudes of a deaf adult during the communication process.

Research questions

The following questions guided the study

1. To what level does communication barriers impacted on the working memory of deaf adult in speech contents?
2. To what extent does communication barriers elicit anxiety in deaf adult when speaking with significant others?
3. To what extent does the communication barrier influence the attitudes of a deaf adult during the communication process?

Research hypotheses

Three hypotheses guided the study and they are stated as follows

1. The impact of communication barriers on working memory of deaf adult speech contents is not significantly high.
2. The impact of communication barriers on anxiety in deaf adult when speaking with significant others is not significantly high.
3. The impact of communication barrier on attitudinal disposition of deaf adult during communication process is not significantly high.

Method

The researcher adopted a*survey research design in this study. The design allow the researcher to collect data from sampled respondents and generalised the findings to the entire population. This study was conducted in Calabar education zone using* the sample of 32 deaf males and females aged 18-55 years who are hearing impaired. Their hearing loss ranged from mild to profound. They were selected from all the Local Governments in the entire zone using a snowball sampling technique. One deaf introduced the researcher to another and then assist the next person to participate in the study. From the information received, the onset of their deafness was prior to the age of 2 years, and therefore they were considered pre-lingually deaf. An interpreter was used by the researcher. For ethical consideration, interpreters who were family members of the participants(parents or siblings) and some others with a hearing family were also used to collect data.

The instrument for data collection was a 30 items questionnaire, designed by the researcher, validated expert in special education and measurement and evaluation from the University of Calabar, the instrument was alsotrial-tested for reliability purposes. The reliability stand of the instrument was .83 -.87based on the instrument sub-scale. The instrument was designed to measure the impact of communication barriers on working memory, anxiety and attitudinal disposition. The working memory measures the cognitive aspect of the variable while the anxiety and attitudinal disposition measure the psycho-cultural aspect of the variable. The instrument was designed in a five-point Likert scale. The deaf adults have naturally observed their homes. The researcher also communicated with them informally through sign language with the aid of the interpreter to prevent any anxiety and wrote down their responses and her observations for the purpose of data analysis. The data collected was analysed quantitively using a one-sample t-test at .05 level of significance.

Results

Each of the hypotheses was reinstated and tested using one-sample t-test statistical analysis in this section.

Hypothesis one

The impact of communication barriers on the working memory of deaf adult speech contents is not significantly high. The result of one sample t-test use in testing this null hypothesis is presented in table 1.

Table 1: One sample t-test of the impact of communication barriers on working memory of deaf adult content of speech.

	N	Mean	Std.Dev	t	df	p-value
Impact of communication Barrier on working memory of deaf adult Content of speech	32	31.84	11.89	.877	31	.38

Table 1 shows a one sample t-test value of .877, with 31 degree of freedom and the test-value of 30, whereas the p-value observed is .38. the significant level was tested at .05. The result of the analysis was not significant because the observed p-value of .31 was greater than .05 with 31 degree of freedom. With this result, the null hypothesis stated was retain while the alternate hypothesis, was rejected. This result implies that the impact of communication barriers on adult content of speech is not significantly high as at the time of data collection.

Hypothesis Two

The impact of communication barriers on anxiety in deaf adult during communication with significant others is not significantly high. One sample t-test was also use to test this null hypothesis. The result of the analysis is presented in table 2.

Table 2: One sample t-test of the impact of communication barriers on anxiety in deaf adult during communication with significant others. Test value= 30

	N	Mean	Std.Dev	t	df	p-value
Impact of communication barrier on deaf adult content of speech	32	33.44	12.56	1.54	31	.13

The second hypothesis was meant to test the level of communication barrier on anxiety in deaf adult content of speech during communication process. One sample t-test result as presented in table 2 shows a t-test value of 1.54 at 31 degree of freedom with the p-value of .13. The observed p-value was less than .05, hence the result of the analysis was not significant. with this result, the null hypothesis was retained while the alternate hypothesis was rejected. This means that the impact of communication barriers on anxiety in deaf adult during communication with significant others is not significantly high.

Hypothesis Three

This hypothesis was formulated to the impact of communication barrier on attitude of deaf adult. The hypothesis stated in null form that the impact of communication barrier on attitudinal disposition of deaf adult during communication process is not significantly high. In other to ascertain whether to accept or refute this null hypothesis. One sample t-test statistical analysis was used, and the result of the analysis is presented in table 3.

Table 3: One sample t-test of the impact of communication barriers on attitudinal disposition of deaf adult during communication process. Test value = 30

	N	Mean	Std.Dev	t	df	p-value
Impact of communication Barrier on deaf adult Content of speech	32	34.53	12.35	2.07	31	.04

The result of the analysis as shown in table 3 was significant. the table indicate a one sample t-test of 2.07 at 31 degree of freedom with the test value of 30. The observed p-value as seen in the table is was .04 which was less than .05 level of significant. the result of the analysis was said to be significant because the p-value was less than .05 level of significant. with this result the null hypothesis which stated that the impact of communication barrier on attitudinal disposition of deaf adult during communication process is not significantly high was rejected while the alternate hypothesis was retained. The implication of this result of that the impact of communication barrier on attitudinal disposition of deaf adult during communication process is significantly high.

Discussion

The interest of the first variable was on the impact of communication barriers on adultson the working memory of deaf adults in their content of speech. The result of the analysis revealed that the impact of communication barriers on deaf adult working memory's content of speech is not significantly high. Though the finding of this study was surprising to the researcher, it supported the work of a previous study conducted by Marschark, Sarchet, and Trani (2016) who found out that hearing status and preferred language modality (signed or spoken) are frequently confounded. Further,the finding of their study was that there were no significant differences among the groups (deaf signers' deaf non-signers, and hearing signers) on the task involving visual-spatial stimuli. However, across

varieties of other memory tasks especially those involving both verbal and nonverbal stimuli and those requiring retention of serial order, deaf individuals were found to score lower than hearing individuals

Contrastingly, the findings of Arf,Rossi and Sicoli (2015) was in variance with the present study. the researchers found that hearing people scored higher than deaf people at all levels of memory skills assessed. In the study, the researchers used verbal working memory skills, reading comprehension skills, and verbal rehearsal skills. Such findings as this could be accounted for the reason of finding by Marschark, Sarchet, and Trani (2016) which stated that 'hearing status and preferred language modality (signed or spoken) are frequently confounded'.

Marshall, Jones, Denmark, Mason, Atkinson, Botting, (2015)studied this issue of communication barriers on working memory of deaf by investigating working memory and its relation to communication and language processing in two different groups of deaf children: native users of British Sign Language (BSL) and non-native BSL users, as well as in a control group of typically developing children with no hearing difficulties and no knowledge of sign language. The native signers had at least one deaf parent who had communicated in sign language with their child since birth. The non-native signers had acquired sign language later. All three groups performed two executively demanding non-verbal working memory tasks as well as an expressive vocabulary test and a narration task based on a filmed scenario enacted in BSL. Results showed that the non-native signers performed more poorly than the hearing participants on both working memory tasks while there was no difference in performance between the native signers and the hearing participants. The non-native signers had poorer vocabulary scores than the native signers who in turn had poorer vocabulary scores than the hearing children. However, there were no group differences on the narration task. Regression analysis showed that vocabulary was a significant unique predictor of performance on both of the working memory tasks. This association was all the more striking considering that there were no explicit demands on verbal skills in the working memory tasks.

In the second hypothesis tested, it was found out that the impact of communication barriers on anxiety in deaf adult during communication with significant others is not significantly high. This is true because, deaf adult tends to understand their limitation and learn to leave with it. Surprisingly, the finding of this study was in variant with the work of Shoham, Lewis, Favarato, and Cooper (2018) who discovered that prevalence of anxiety is higher among people with hearing impairment during communication process than the general population.

The indication was their findings was that the excess anxiety morbidity may be related to the hearing impairment itself, as it was associated with the severity of impairment, and reduced after therapy was introduced.

Another study with a confounding finding was conducted by Ariapooran1 and Khezeli (2021). Their finding was that the presence of symptoms of anxiety disorder in adolescents during communication process are higher in deaf than in hard of hearing. Among the subscales, only the social anxiety disorder and the school avoidance anxiety disorder were significantly differed. The mean score of panic disorder, social anxiety disorder, and anxiety disorders during communication in the deaf adolescents were not higher than the hard of hearing ones.

Hearing impairment can impair verbal communication, increasing social exclusion and loneliness and exacerbating existing cognitive and functional impairments. It can also lead to greater dependence on others, increasing vulnerability to neglect, discrimination or abuse. It is possible that hearing impaired people may feel a greater sense of threat in challenging situations, if they are less able to understand what is happening or communicate their needs. Although risk factors for anxiety between people with acquired and pre-lingual hearing impairment might differ, both groups are likely to be at increased risk. Fellinger, Holzinger and Pollard 2012; Øhre, von Tetzchner and Falkum 2011).

Finally, the findings of the last hypothesis revealed no low significant impact of communication barriers on attitudinal disposition of deaf adult during communication process. This finding goes ahead to support the fact that most deaf people have been greatly influence by deaf culture, and by extension societal view. The finding of this study was in line with the work of Carruth, Robert, and Hurley (2007) who found out that hearing impairment associated with hearing loss, may not adequately represent communication handicap and the impact on quality of life. Further finding of study was that most of the deaf adult refuse to wear hearing aids, and that this is prevalent in the deaf culture. The assumption according to the researcher was that wearing hearing aids prevents others from getting one's attention. The findings of this study confirm that this attitude, along with hearing loss in the left ear, is associated with a communication handicap in work settings. Although being able to hear others on a day-to-day basis is important, this attitude may contribute to behaviors leading to hearing loss and decreased communication over time.

Studies also discovered that hearing loss affects every aspect of life. Individuals who have hearing loss are not always aware of the social consequences. They may have a poorer quality of life, be less active socially, feel

excluded or isolated, and have a negative self-image (Arlinger, 2003; Lusk, 1997). In the study by Al-Zahrani (2005), Significant differences were found in peer relations and social adjustment based on gender.

Conclusion

Barrier to effective communication is inevitable, and become necessary to overcome them for effective communication to be achieved. However, such barrier become more worrisome with the group of deaf and hard of hearing individual. Their emotional, cognitive, psychological and cultural life are affected if such barriers are not overcome during the communication process. This study access just a few variables under cognitive, psychological and cultural context. The aim was to ascertain the level in which communication barrier impacted each of these variables. Under cognitive, psychological and cultural variables, working memory, anxiety and attitudinal disposition were used respectively. The findings of the study show that the impact of communication barriers on anxiety in deaf adult during communication with significant others is not significantly high. The impact of communication barriers on anxiety in deaf adult during communication with significant others is not significantly high. the impact of communication barrier on attitudinal disposition of deaf adult during communication process is significantly high. The exhaustiveness of consideration under each variable calls for another study using different sub-variables.

Recommendations

Base on the findings of study, it was recommended that:

1. A conducive environment should always be created during the communication process with the deaf and heard of hearing. This will ease their anxiety eliminating all potential communication barriers that may arise.
2. It is also recommended that the families, educators, and all the people related to the deaf people should use sign language to enrich their communication; this will provide the deaf individuals with equal
3. opportunity to enjoy the communication benefits and grow in cognitive, affective and social aspects of life

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

THE PEER INTERACTION OF HEARING IMPAIRED CHILD AND MOTHER RELATIONSHIP VIS-À-VIS CHILD UPBRINGING

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Abstract
The paper shows that mothers of children enrolled in both integrated and specialized programs perceived their respective settings as valuable for the development of their child's peer relations and friendships. Mothers of children in integrated settings reported that their child played better and was more social due to the participation of children without special needs. Nevertheless, both groups of mothers were clearly concerned about peer rejection and noted the importance of having other children with special needs in the program available as means of promoting tolerance and acceptance.

Keywords: Peer, Hearing impairment, Peer-relationship, Mother, Paretntal experience

Introduction

The emergence of community based programs that integrate preschool age children with and without disabilities has been accompanied by an extensive examination of critical issues related to the process of service provision and to the general impact of inclusive programs on children and families (Guralnick, 1990a; Lamorey &Bricker, 1993; Odom & McEvoy, 1988).One issue that is central to inclusive programs concerns young children's social interactions with their peers and their ability to establish friendships. In part, the prominence of this issue stems from the fact that peer relations and friendships represent, perhaps more than any other aspect of development, an expression of the philosophical and ideological basis of inclusive programs. The concepts of acceptance, rejection, social integration, and social isolation are all linked to children's interactions with their peers.

In addition to its central role related to the goals of inclusive programs, interest has occurred because establishing successful relationships with peers and forming friendshi ps constitute vital developmental tasks during the preschool years and carry important implications for children's cognitive, communicative, and general prosaically development as well as for an emerging sense of self (Bates, *1975;* Garvey, 1986; Hartup, 1983; Howes, 1988; Rubin & Lollis, 1988).

Moreover, parents of preschool-age children with and without disabilities recognize the significance of peer relations and friendships, highly valuing social development (Quirk, Sexton, Ciottone, Minami, & Wapner, 1984). Mothers were asked the extent to which their child played with peers representing special needs or non special needs groups and whether their child's peer-related social interactions benefited more from playing with children from one or the other group. Mothers 'perceptions of the value of having children with special needs available in their child's preschool program. The primary issues addressed were the importance of having other children with special needs in the program, possible unique benefits to their child in terms of social play, effects on the child participating in a specialized program (containing children with similar special needs), and any concerns should children with special needs. In part, this was based on the stated importance of having other children with similar skills and abilities available for their child. However, greater emphasis was given to the belief that the presence of children with special needs encourages tolerance and acceptance of others. In a related matter, the possible rejection of children with special needs by children without special needs is a pervasive and troubling issue. On the one hand, parents want their children to "learn about the real world" (Bailey & Winton, 1987; Guralnick, 1994), yet they appear to be equally concerned that rejection of their child is more likely to occur in integrated than specialized settings (Guralnick, 1994).

Of interest, young children with special needs have nearly twice as many non special needs friends than friends with special needs in integrated programs, suggesting a reasonable degree of social integration. Moreover, nearly half of school based friendships extended to the community, suggesting further that friendships formed in the pre-school have important implications for community integration as well. Clearly, the absence of children without special needs in specialized programs has implications for both preschool and community interactions with children without special needs.

The Concept of Hearing Impairment

Hearing impairment is a term that refers to all degrees of hearing loss from profound deafness to mild or moderate hearing loss. However hearing difficulty in its more severe form is a disability whose effects are so pervasive that they give rise to the disorganization of the whole personality of the affected, including his physical, mental, social and psychological well-being. The greatest effect of hearing impairment, however, is in the area of communication. National Development of Language and Speech depends primary on a child's ability to hear

the speech of those around him and to associate what he hears with meaning (Mba 2002).

Hearing impairment is a condition whereby the organs of hearing is non functional or malfunctioned to an extent that makes difficult or precludes the understanding of speech sound for ordinary purposes of life with or without hearing aids. It includes the subsets of hardness of hearing and deafness. Hard of Hearing refers to an individual whose hearing is disabled to an extent that make difficult the understanding of speech sound through the alone are with or without amplification for ordinary purposes of life. Under this category are people with mild (26-45dB) and moderate (46-65dB) hearing losses. A deaf refers to an individual whose hearing is so disabled to an extent that it precludes the perception and understanding of speech sound through the are alone with or without amplification for ordinary purposes of life. Those in this category have severe (66-85dB) or profound (90dB and above) hearing loss (Babudoh, 2007) Aiyeleso (2009) posits that it is best defined as a lack or reduction in the ability to hear clearly due to a problem somewhere in the hearing mechanism.

Types of Hearing Impairment (H.I.)

There are various typologies of hearing impairment. However, only those types of hearing impairment pertinent to this discourse will be highlighted.

i. **Deafness:** This is a complete inability to use the auditory mechanism for the purpose of communication with or without amplification. A deaf person cannot use the sense of hearing for the ordinary purpose of life, and automatically resort to the use of signs and gestures in communication. Persons with this type of loss, from experience, tend to derive little or no benefit from the use of hearing aids which ultimately lead to abandonment.
ii. **Hard of hearing:** This is a hearing loss that can be improved through amplification. It is still functional with or without hearing aids. The hard of hearing have enough residual hearing that still allows oral communication through with some level of assistance and/or discomfort.
iii. **Pre-lingual hearing impairment:** This is a hearing loss that occurs before the acquisition of language either before birth or immediately after birth. In most cases it is usually severe or profound and is considered as deafness.
iv. **Post-lingual hearing impairment:** This is a hearing loss that occurs after the acquisition of language. Persons with this condition have acquired speech and language skills to a reasonable extent before hearing loss started. They are still able to use residual speech and their residual hearing can be amplified. They are considered hard of hearing.
v. **Congenital hearing impairment:** This is hearing loss that occurs either

before birth or at birth. The persons with this condition have not acquired any speech or heard any meaningful sound. It is usually considered as deafness.

vi. **Adventitious hearing impairment:** This is an acquired hearing loss that occurs later in life as a result of sickness, diseases, accident e.t.c. Persons with this condition are born with normal hearing but lost it later in life after they have acquired speech and language skills. Most of them usually have residual hearing and speech.

vii. **Conducive hearing impairment:** This is a hearing loss that occurs in the conductive pathway of the auditory system because of a disturbance in the flow of acoustic energy from the outer and middle ear to the inner ear. Persons

viii. with this condition always have a residual hearing in the inner ear. Hence, the outer and middle ear can be bypassed through an amplified sound strong enough to stimulate the mastoid process. This is considered hardness of hearing.

ix. **Sensorineural hearing impairment:** This is a hearing loss that occurs as a result of a problem or damage to the inner ear. The severity determines the presence or absence of residual hearing.

x. **Mixed hearing impairment:** This refers to a simultaneous existence of conductive and sensorineural hearing loss. That is; a condition where both the conductive as well as the inner part of the ear are impaired. An individual is said to be a mixed hearing impairment when he has a Sensorineural as well as a conductive hearing impairment such as fluid in the middle ear.

Indicators/Symptoms of Children with Hearing Impairment

According to Babudoh (2008), hearing impairment is not a glaring type of disability as it is with visual impairment. You can never suspect an individual to be hearing unless you interact with him/her. The following are some of these characteristics or indicators or symptoms of hearing impairment exhibited by individuals:-

In Babies

1. Failure to startle at loud sounds
2. Not turning towards the sound of a voice
3. Not imitating sounds after(month of age)
4. Does not babble even at nine (9) months of age.
5. Using gesture instead of words to express needs.

In older Children and Adult:-

1. Develops vocabulary more slowly than their peers.
2. Has speech that is difficult to understand by a listener.
3. Turns on the TV/radio too loud always.
4. Frequently fails dictation exercises woefully.
5. Cubs a hand around the ears in attempt to hear better.
6. Turns one of the ears to the speaker indicating the presence of a better ear.
7. Speaking very loud or very low always because he/she lacks auditory feedback.
8. Speaking on mono-tones, either high pitch or low pitch.
9. Has low speech and poor in sentence making.
10. Complains of buzzing or ringing sounds in the ear.
11. Always complains of itching of ears or ear ache.
12. Pays more attention to movement than sound.
13. Has a running ear(pus coming out of the ear)
14. Looks at the face/mouth of a speaker during conversations probably to read the lips of speaker.
15. Frequently brings the wrong item when asked to bring something from somewhere.

Peer-Relationship

Piaget (1932) suggested that children's relationships with peers could be clearly distinguished from their relationships with adults. Adult-child relationships could be construed as being asymmetrical and falling along a vertical plane of dominance and power assertion. Children normally accept adults' rules, not necessarily because they understand them, but rather because obedience is required. By contrast, children's relationships with peers were portrayed as being balanced, egalitarian, and as falling along a more-or-less horizontal plane of power assertion and dominance. Thus, it was in the peer context that children could experience opportunities to examine conflicting ideas and explanations, to negotiate and discuss multiple perspectives, and to decide to compromise with, or to reject, the notions held by peers. These experiences were believed to result in adaptive developmental outcomes for children, such as the ability to understand others' thoughts, emotions, and intentions.

Contemporary perspectives on the role of peer exchange for developmental growth can be seen in the work of co-constructivist thinkers (Baker-Sennett, Matusov, & Rogoff, 2008). Some researchers have examined whether the quality of the relationship between the peers who are interacting with each other may contribute to cognitive and social-cognitive growth and development (Malti &

Buchmann, 2010). For example, *friends* can challenge each other with relative impunity. Given that friends are more sensitive to each other's' needs, and more supportive of each other's thoughts and wellbeing than non-friends, it may be that children are more likely to talk openly and challenge each other's thoughts and deeds in the company of friends than non-friends. If this were the case, one would expect exchanges between friends to be more promoting of cognitive and social-cognitive growth than non-friend peer exchanges (McDonald, Malti, Killen, & Rubin, 2014).

Like Piaget, Sullivan believed that the concepts of mutual respect, equality, and reciprocity developed from peer relationships. Sullivan, however, emphasized the significance of "special" relationships -- chumships and friendships -- for the emergence of these concepts. In the early school years, whether friends or not, Sullivan thought children were basically insensitive to their peers. During the juvenile years (late elementary school), however, children were thought to be able to recognize and value each other's personal qualities; as a consequence, peers gained power as personality-shaping agents. Sullivan's theory has proven influential in the contemporary study of the protective role played by friendship in the lives of children who have poor relationships with parents (Rubin, Dwyer, Booth, Kim, Burgess &Rose-Krasuor, 2004) or who are at risk because of their own personal characteristics (Bukowski, Laursen, & Hoza, 2010), and studies focused on the negative psychological consequences of not having close dyadic relationships with friends (Erath, Flanagan, Bierman, & Tu, 2010).

Building on the turn-of-the-century notions of Cooley (1902), George Herbert Mead (1934) offered a third influential theory in which he suggested that the ability to reflect on the *self* developed gradually over the early years of life, primarily as a function of peer play and peer interaction. This theoretical position has been highly influential in contemporary research concerning relations between peer rejection and victimization, and the organization of the self-system (Ladd, Troop-Gordon & Ladd, 2003).

Peer Acceptance, Rejection and Perceived Popularity

The experience of being liked and accepted by the peer group-at-large is known as *peer acceptance* and the experience of being disliked by peers has been termed *peer rejection.* Being liked by peers is distinct from being "popular," cool, central, or highly visible, which has been termed *perceived popularity* (Bukowski, 2011). In the following sections, we examine the methods used by researchers to assess acceptance, rejection, and perceived popularity within the peer group. We also describe findings concerning the possible determinants of peer acceptance,

rejection, and perceived popularity and the outcomes that persistent difficulties with peers may entail.

Hearing parents of deaf children may also share the dominant culture's norms and myths about deafness that influence their perceptions and expectations of their children. For hearing parents of deaf children, knowledge, processes, interactions, routines, and tasks about which parents would seldom think twice become frustrating, and their normal parental capacities become frozen or seemingly unavailable for use. As a result, deaf children may struggle for understanding and mirroring in their families, as well as at school. For deaf children, the Deaf community, especially Deaf parents who have themselves raised deaf children, can be an essential key to understanding and education in home and at school.

Outcomes of Relationship Difficulties to Children with Hearing Impairment and Mothers

This paper indicated that peer rejection in childhood is associated with a wide range of *externalizing* problems in adolescence, including delinquency; conduct disorder, intentional difficulties, and substance abuse (Kupersmidt & Coie, 1990).

There is some debate among researchers as to the 'causal' nature implied by the relations typically reported between peer rejection and psychological maladjustment. For example, it is possible that underlying behavioral tendencies that may account for children being rejected by peers (i.e., aggression) also contribute toward later negative outcomes (i.e., juvenile delinquency). In this regard, the experience of peer rejection itself may not lead, in and of itself, to adjustment difficulties. However, results from a series of recent longitudinal studies have provided compelling support for the notion that peer rejection does make a unique contribution to subsequent maladjustment.

Parental Experiences with Hearing Impaired Children

The definition of deafness as a category of disability is in contrast to the construction of Deaf people as members of a linguistic minority. In the last decade, in the wake of the civil rights movements of the l960's and the realization that the signed languages used by Deaf people are linguistically valid, activists in the Deaf community have begun to describe the perspectives, knowledge, and strengths of deafness as a cultural identity. “Deaf culture and current technologies make being Deaf different from having another disability, and the Deaf community has a tradition of being a social and artistic subgroup within the larger society.”

(Marschark, 1997, p. 44)

Deaf parents with deaf children bring to child-rearing their own years of implicit as well as explicit experience, knowledge, and attitudes about what it means to be Deaf. If the Deaf parent was born deaf, they have grown up responding visually to the world around them. Deaf parents intuitively think in visual ways, which is the best way to convey information to young deaf children who are just forming a language base (Erting, Prezioso & Hynes, 1994; Erting, Thumann-Prezioso, & Benedict, 2000). Despite the fact that Deaf parents are raised in a society that sees them as disabled and can seldom avoid the attitudes of deficiency, they also know the capabilities of themselves and their peers, and are more attuned to the potential of deaf children. Although Deaf community members who have, themselves, raised deaf children can provide valuable insights into deaf children, they have seldom been sought out for their expertise.

Deaf parents can act as a catalyst for reawakening the intuitive knowledge of hearing parents raising deaf children. Seeing that other parents (Deaf and hearing) share common experiences and that simple parental interactions (such as playing the *Copy Game*) are an effective way to enjoy a relationship with their child helps to reaffirm what parents already know. A shared sense of social stigma also help to unite parents of deaf children, allowing them to work together to challenge societal (and sometimes school) assumptions about the possibilities available to them and to their children. Deaf parents, themselves active leaders and family members, provide a reality check for both hearing parents and teachers about what the future can hold for deaf children. Deaf parents also serve as a bridge between the cultural knowledge of the Deaf community, the knowledge of deaf educators, and parental knowledge and experiences. Thinking visually, following eye gaze, telling stories, and communicating by any means necessary are important reminders for all members of the home-school-community partnership who care for and about deaf children.

Conclusion

Educating children with special needs places extra demands in school. However, the field of education in the country has been committed to providing care and quality educational opportunities to the less fortunate though the system of support for children with disabilities is complex and requires special attention. Parents require knowledge on how to train their children who have special needs in various aspects of life. Children with disabilities just like any other child should be trained in all kind of manner, behaviour, skills and personality. This should start as early as possible in order to establish a foundation for advanced learning.

Early assessment, identification, intervention and placement with expertise makes a child learn to be confident, independent and have bright hopeful future. Parent therefore should maintain attachment with the child's growth and development and learning.

Parental role in the learning process cannot be underestimated. When the foundation of a house is strongly well established, the rest of the house would be easy to construct and remain firmly erected. Parents should introduce their child to their faith early, train him in social and cognitive growth and development. They should discuss life challenges and help overcome them. It is important thatparents monitor the child's movement and company when he/she is not in school or at home to save them from bad companies.

Recommendations

This study therefore suggests the following recommendations to improve parental involvement in the learning process hence advance the education of people with special needs.

1. Parents (society) need to be trained in early assessment, mentoring, identification, placement and educational intervention measures of their children for proper learning.
2. Parents (society) get informed and advised on changing their negative attitudes and self-defeating that deter their efforts in the learning process of children with special needs.
3. Sign language should be taught in all learning institutions just like any other language and not just in schools for the hearing impaired and create awareness on special needs education.
4. Review curriculum to include technical courses that can favour children with hearing impairment such as fine art, baking, games and sports, agriculture among others.
5. All organizations including religious gatherings in rural and urban regions should engage sign language interpreters for an inclusive society.
6. Government should increase the financial allocations for institutions of persons with disabilities (hearing impairment) to support the learning process with further learning resources according to the diverse needs of such learners.
7. Institutions of learning should deploy successful persons with disabilities to serve as role models in those centres, e.g. Deaf teachers in schools for the deaf.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

INFLUENCE OF SIGN LANGUAGE INTERPRETERS ON ACADEMIC PERFORMANCE OF STUDENTS WITH HEARING IMPAIRMENT IN OTANA INTEGRATED SCHOOL JOS, PLATEAU STATE, NIGERIA

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Abstract
This research study was conducted to investigate the influence of sign language interpreters on the academic performance of students with hearing impairment in Otana Integrated, Jos Plateau State. Two research question was formulated and two hypotheses was raised. The research adopted for the study was survey research design and under the survey type of research, cross sectional research design was maintain. A 10 item Questionnaire was used to survey 20 respondents of students with hearing impairment. The study revealed that sign language interpretation as a means of communication has positive influence on the academic achievement of students with hearing impairment. Based on the findings, the researchers made a few recommendations apart from sign language interpretation which included, that lip reading and imitation should be encouraged for effective communication between the teachers and the students with hearing impairment.

Key Words: Hearing Impairment, Sign Language, Interpreters.

Background to the Study

Hearing is the second most important human sense next to vision. Hearing impairment fall along a condition with normal hearing at one end, and profound hearing impairment (deafness) at the other. Hearing impairment is one of the common handicapping conditions in the world. These condition heterogeneous conditions are not too obvious like blindness which could be seen easily. It would appear that society as a whole, knows little about the hearing impaired (deaf) population. Many people seldom or never come into contact with them. Their special needs to a great extent removes them from usual avenues of contact with people and they are a class apart in the community. Hearing impaired (Deafness)

is by far the greatest educational handicap besides being physical one. According to Smith (2018) buttress that hearing impaired are those in whom the sense of hearing is nonfunctional for the ordinary purposes of life in spite of medical treatment and use of hearing aids. Hard of hearing on the other hand, are those who have lost some but not all of their hearing and who can benefit from the use of hearing aids in other to understand the use speech.

Thus, there are usually signs and symptoms or characteristics to be used to identify, recognize, discover or find out students that are living with hearing impairment. Oriade (2004) while quoting Adima (1989) observed that hearing impairment can be associated with certain distinctiveness that are often displayed or often manifested (seen or complained about) by persons with hearing impairment. Jatau, Uzo and Lere (2009) categorized the causes of hearing impairment into three: prenatal, perinatal and post natal causes of hearing impairment. Thus, prenatal causes are the condition that takes place before birth and such maybe due to the exposure of the mother to infection during the first month's pregnancy or through viruses of mumps, German measles and /or influenza impairment that occur at this stage (pre natal development) may be attributed to the result of toxic condition – when expectant mother take unprescribed drugs, cigarette smoking or alcohol intake and a host of other destruct the auditory cells or auditory channels.

In the study of academic progress of hearing impaired individuals, Susanne, Shrin & Kathryn (2008) argued that facilitators and detractors of academic status of the concern learners are self-advocacy, motivation, high family and school expectations families' ability to help with homework, and good communication between professionals. Meanwhile detractors included additional disabilities and poor family school communication. Each above – average student had many facilitators, whereas each below – average student had several significant detractors.

Looking at the general performance of students with hearing impairment, the average academic achievement of deaf and hard of hearing peers. However average marks the wide range of achievement, some hearing impaired individuals make academic gains commensurate with the general school age population (Karchmer & Mitchell, 2003). Variable that enhance or depress academic achievement have been examined by several researchers (Luckner & Muir, 2001; Mitchell & Karchmer, 2006; powers, 2003). Variables examined include demographic variable such as degree of hearing loss, ethnicity, and socio economic status, family variable such as parental support and resources, classroom and school variable such as degree and kind of special education support.

However, the educational provision and procedures for teaching hearing impaired students are quite distinct from those their normal counterpart. The hearing condition of the hard of hearing students still permits them with the ability to acquire speech and language through hearing. The problem in teaching them is mainly because it is possible for them to learn through the methods and procedures used with hearing students. On the other hand, the hearing impaired child faces quite a different problem, because he never hear speech, does not acquired language which are more developed through the sense of hearing. The education of the hearing impaired is probably the most technical area in the whole field of special education because of it requires more specialized training on the part of the teacher than any other form of special education.

The education of the hearing impaired persons will be incomplete without considering the methodology appropriate for impacting curriculum content, instructional materials or instructional objectives into this unique group of students for better academic achievement. Solow (1981) in her book "Sign Language Interpreting" suggested that "Sign Language is generic term for many forms of manual communication". Sign language is the native language used mostly in the hearing impaired community. It is probably the most popular with the hearing impaired but definitely the most widely utilized in the core hearing impaired community. It is a visual gestural language unlike spoken language which is mainly auditory vocal.Haffer & Wilson (1996), in their book" Come and Sign with us" asserted linguists who have studied sign language have found individuals' signs have three features. The first is the Hand Shape; this is how the hand is formed. Then, there is the Location; this refers to where that hand shape is placed. And the third is the Movement; which deals with where and how the hand shape moves. Solale (1997) in his book "Talking Fingers" observed that sign language "does not involve only the use of hands alone, but also the use of the whole body to present and describe ideas.

The application of the model has been widespread, particularly in empirical research on occupational health issues related to social epidemiology, behavioral medicine, and psychosocial job analysis to explore mental strain, cardiovascular diseases, musculoskeletal disorders, diabetes, cancer, psychiatric illness, gastrointestinal illness, occupational and traffic accidents, suicides, alcohol-related diseases, absence from work, sleeping problems, depression, reproductive problems, anxiety, work satisfaction, and quality of life of interpreters (Kristensen,1996). Specific to the interpreter, controls can be related to education, experience, preparation, and specific choices made regarding the interpreting

process. Consistent with, these controls, or decision attitude, are resources that can be influential when faced with demands. Theorized that interpreters are often placed in highly demanding high-strain working situations. It has been suggested that some possible reasons for high occupational stress may be related to confidentiality standards, as well as training and support (Dean & Pollard, 2018). Clearly, the issue of social support for the sign language interpreter is a complex one. As Dean and Pollard note, professional confidentiality standards, as well as limited opportunities for confidential supervision, provide a challenge for interpreters needing to process difficult work experiences.

Given the unique structure of interpreting, the noted level of demands related to the job, and the high level of work related strain, it seems reasonable that interpreters would be experiencing a level of stress that would be influential to their work. The job demand-control (JDC) model provides information regarding the tension between demands and controls that helps to analyze the complex process of interpreting. In the application of JDC schema to burnout, it is hypothesized that sustained demands that exceed controls will result in emotional exhaustion, depersonalization and a lack of personal accomplishment. It is in the light of the above that the researchers investigated the influence of sign language interpreters on academic performance of pupils with hearing impairment in Otana Integrated School Jos, Plateau State, Nigeria.

Statement of the Problem

A teacher has the greatest potential to influence the student's education while a student's achievement is related to teacher's competence in using different methods of teaching. Thus students with hearing impairment achieve more when teachers employ sign language interpreter in systematic teaching procedures that make teaching and learning easier. Efforts are being made by different government in the country to improve the education of students with hearing impairment. Students with hearing impairment cannot be fully rehabilitated in the regular school if they are not given extra attentions by the teachers or do have the teaching-learning methodology turned to their disability.

Purpose of the Study

The study looked at the influence of sign language interpreter on the academic performance of students with hearing impairment. Specifically, this study intended to:

1. find out how sign language interpretation can be used in teaching students with hearing impairment.

2. assess the effectiveness of sign language interpreter on academic achievement of this targeted group.

Research Questions

The researcher asked the following questions to enable him find solution to the problem under investigation and to break down the problem into smaller part of unit: -

1. What is the influence of sign language interpreter in teaching and learning of students with hearing impairment?
2. To what extent does academic performance of students with hearing impairment using sign language interpreter vary from those who do not use sign language interpreter?

Hypotheses

The following hypotheses are formulated and tested using simple percentage mean scores.

1. There is significant difference between hearing impaired pupils who use sign language interpreters and those who do not use sign language interpreter.
2. There is no significant difference between pupils who use sign language interpreters and those who do not use sign language interpreter.

Methodology

Research Design. The design used for this study was survey. The study maintained cross sectional research design. This design requires that the researcher select a group of respondents, to collect information and analyzed the information to answer the research questions raise. The source of information came from students with hearing impairment due to the fact that students with hearing impairment are involved in the teaching and learning process and they deal with a lot of challenges mostly both at school and home.

Population. Twenty (20) students with hearing impairment were sampled out of the 44 students with hearing impairment that formed the target population. This said sample of 20 students were randomly assigned to experimental and control groups such that each group had: 10 males, 10 females; giving a total of ten (10) samples in each group. The school in focus was Otana Integrated School in Jos metropolis, which had forty four (44) students with hearing impairment in the school; this size informed the choice of the school for this study. The overall population of Students with hearing impairment at the school was 44.

Sample. Twenty (20) students with hearing impairment were sampled out of the 44 students with hearing impairment Otana Integrated School Jos that formed the target population. This said sample of 20 students with hearing impairment were randomly selected bearing in mind their age, sex.

Sampling Technique. In the selection of sample for this study, the researcher "adopted simple random sampling" which involved cutting of pieces of paper and written "YES" and "NO" on each paper and squeezed. These pieces of paper were divided into group for fair participation between male and female teachers. The researcher ensured that those who picked "NO" were exempted from participating in the study while those that picked "YES" automatically became the research sample which researchers need to represent the whole population under the study.

Instrument for Data Collection. The instrument the researchers considered for the collection of data for the study was questionnaire since mainly the students with hearing impairment supply the information needed, so only students questionnaire is to be used.In the construction of the questionnaire the researcher took cognizance of the research questions. The questionnaire was therefore designed to reflect the formulation of the research questions. For this reason, the questionnaire was divided into two major sections. That is section "A" and 'B" respectively. Each section of the questionnaire aimed at providing information that is needed for the analysis of the postulated research questions.

Section "A" is aimed at providing information about the respondents such as name, Qualification, Class in charge, Year of Experience etc. meanwhile section "B" part of the questionnaire is aimed at providing information about the research topic being investigated. On this note, questions are generally asked in which the respondents are supposed to agree, strongly agree, disagree, strong disagree or undecided.

Validity of Instrument. The instrument was given out to three professionals for validation. One from the department of educational foundations, test and measurement unit while two experts from the department of special education, hearing impaired unit all in the Faculty of Education University of Jos. The experts were asked to examine the item of the instrument in relation to the purpose of the study, research question and hypotheses were check for appropriateness.

Reliability of Instrument, To determine the reliability of the instrument, the instrument was trial tested on 20 teachers from Otana Integrated School Jos, Plateau State. The choice of the school for the rail testing was informed by common factors with the study area. The internal consistency of the instrument was obtained using Cronbch Alpha reliability method in which Cronbach alpha reliability coefficients 0.5 level of significance for the entire instrument.

Procedure for Data Collection. A letter of introduction was written to seek for consent and cooperation of the school and students investigated. The researchers administered the questionnaire to the sample subjects in person. The respondents were able to fill and return the filled questionnaire instantly.

Method of Data Analysis

The data analysis for this study was analyzed using means score distribution of respondent's responses. Any item within a mean value of 2.50 and above was accepted. For testing the hypotheses, chi-square statistics were employed which were computed using software package for social sciences (SPSS).

Results

Research Question One: What is the influence of sign language interpreter in teaching and learning of students with hearing impairment?

S/N	Statements and Total Respo ndents	SA	A	SD	D	Mean
1	Sign Language interpretation help greatly on the academic performance of students with hearing impairment.	19	2	0	0	4.0
2	There is a great benefit and encouragement given to sign language interpreters in all special schools for students with hearing impairment.	18	2	0	0	4.0
3	Individualized training approach should be adopted in training students with hearing impairment	19	1	0	0	4.0
4	There are enough sign language inte rpreters in the school	12	2	1	5	1.45
5	Employment of qualified personnel must be made for hearing impaired pupils	19	1	0	0	4.0

Source: Field data 2022.

Base on criterion for decision making that any mean score equal to or greater than rated mean score 2.5 is accepted and less that 2.5 is rejected. The result on table 1 above shows that in item 1, the mean score is 4.00 is above 2.5 so is stand accepted that sign language interpretation help greatly on the academic performance of students with hearing impairment. Item 2, the mean score is 4.00 is above 2.5 so is stand accepted that there is a great benefit and encouragement given to sign language interpreters in all special schools for students with hearing impairment. Based on the forging discussion, item 3 the students recorded a cluster mean score of 4.00 which stand accepted that Individualized training approach should be adopted in training students with hearing impairment. On the other hand, item 4 the students recorded a low cluster mean score of 1.45 which stand rejected that there are no enough sign language interpreters in the school. Thus, item 5 had a high mean score of 4.00 which stand accepted that Employment of qualified personnel must be madefor students with hearing impairment.

Research Question Two. **To what extent does academic performance of students with hearing impairment using sign language interpreter vary from those who do not use sign language interpreter?**

S/N	Statements and Total Respo n dents	SA	A	SD	D	Mean
1	Students with hearing impairment taught by sign language interpreters perform better in class	19	1	0	0	4.0
2	Students with hearing impairment can read better in class using verbal training than sign language interpretation	18	2	0	0	4.0
3	The performance ofstudents taught with oral method of communication is higher than those taught with sign language interpretation	19	1	0	0	4.0
4	Government should make sign language course compulsory in all special schools	12	5	2	1	3.40
5	Interpreters will perform well, if they are being sponsored to attend wor kshops, seminars or conferences on interpretation	19	1	0	0	4.0

Source: Field data 2022.

The table above item 6 shows that the mean score is 4.00 is above 2.5 so is

stand accepted that students with hearing impairment taught by sign language interpreters perform better in class. Item 7, the mean score is 4.00 is above 2.5 so is stand accepted that students with hearing impairment can read better in class using verbal training than sign language interpretation. Based on the forging discussion, item 8 the students recorded a cluster mean score of 4.00 which stand accepted that performance of students taught with oral method of communication is higher than those taught with sign language interpretation. On the other hand, item 9 the students recorded a cluster mean score of 3.40 which stand accepted that government should make sign language course compulsory in all special schools. Thus, item 10 had a high mean score of 4.00 which stand accepted that interpreters will perform well if they are being sponsored to attend workshops, seminars or conferences on interpretation.

Hypothesis 1. There is significant difference between hearing impaired pupils who use sign language interpreters and those who do not use sign language interpreter.

Summary Table of Chi-square Analysis between pupils with hearing impairment who use sign language interpreters and those who do not use sign language interpreter.

	Sign Language Interpreters			
	Sign Language Interpreter		Mode of Communication	Total
Interpretation	10(4.50)	16 (3.50)	15 (3.00)	10
No Interpretation	10 (4.50)	4(2.40)	5 (2.00)	10
Total	20	20	20	20

Source: Field Questionnaire 2022

Originated from table above is the calculated chi-square value of 3.50 which was greater than the tabulated chi-square value of 2.40 tested at degree of freedom 4 under 0.05 level of significance. The researchers accepted the alternative hypothesis and rejected the null hypothesis. This implies that there was a clear significant difference between pupils with hearing impairment who were thought

using sign language interpretation and those who did not used sign language interpreter.

Hypothesis 2

There is significant difference between pupils who use sign language interpreters and those who do not use sign language interpreter.

Summary Table of Chi-square Analysis between pupils with hearing impairment who use sign language interpreters and those who do not use sign language interpreter.

	Sign Language Interpreters			
	Sign Language Interpreter		Mode of Communication	Total
Interpretation	10(4.50)	12 (3.50)	16 (4.00)	10
No Interpretation	10 (4.50)	8(2.40)	4 (3.00)	10
Total	20	20	20	20

Source: Field Questionnaire 2022.

Discussion of Finding

In this study, two research questions were formulated aimed at finding out the influence of sign language interpreters on the academic performance of students with hearing impairment in Otana Integrated School Jos, Plateau State. Data collected were presented in a tabular form and analyzed means score. The findings revealed that imitation and lip-reading are good methods of teaching sign language to students with hearing impairment. It was however revealed that speech reading, repetition method and auditory training are other methods of teaching sign language to students with hearing impairment. The finding also revealed that students with hearing impairment taught with sign language performs far better and read better in class using sign language interpreter than verbal training. This agreed with what Oberketter, (2002) who said that deaf individuals who use sign language interpreter have proficiency with academic and have an average reading ability, which is approximately double the national average for all students who are deaf. The study also revealed that the influence

was noticed as this group of individuals' sign language interpreter skill gains improvement to the extent that they can tackled any activities that involve word problem. it also appear that sign language interpreter enable the students with hearing impairment to receive accolade for good composition on like when expose to oral communication throughout that deprive them for been a good signer and writer as well. With all this findings we can say that sign language method of communication influence the academic performance of students with hearing impairment positively.

Conclusion

It can be concluded that the influence of sign language interpreters on students with hearing impairment cannot be over emphasized, since it has been revealed that it has positive influence on the academic performance of the students with hearing impairment. In fact based on this it is pertinent to note that the use of sign language interpreters make students with hearing impairment to perform better in their academic pursuit.

Recommendations

In the light of the major finding of this research work, the following recommendations are given.

1. Qualified sign language interpreters should be employ to effectively teach sign language to students with hearing impairment.
2. Government should make sign language course compulsory in all special schools for proper communication between students with hearing impairment and those without hearing impairment.
3. There should be collaborative efforts between the government and all stakeholders in general education of students with special needs.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

UTILIZATION OF ASSISTIVE TECHNOLOGY IN CLASSROOM FOR LEARNERS WITH HEARING IMPAIRMENT IN AN I NCLUSIVE SETTING IN NIGERIA

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Abstract
This paper focused on utilization of assistive technology for learners with hearing impairment in an inclusive setting. Utilization is an act of effectively putting into use of something to achieve intended objective while learners with hearing impairment are those population having defective hearing sensitivity to the extent to which verbal communication is difficult. Inclusive classroom is an educational placement option where children with hearing impairment(hearing impairment) inclusive are placed in the same learner environment with other normal children to be taught by regular teacher. The paper further highlighted and discussed assistive technology needed by Learners with hearing impairment in an inclusive classroom. Types of augmenting, alerting, transforming and communication enhancement devices/systems were discussed. Maintenance tips were also presented. The paper concluded among others that inclusive classroom has come to stay in the system of educating children with hearing impairment with reference to the hearing impairment in Nigeria. Hence, regular teachers who are not originally prepared to teach Learners with hearing impairment ought to be provided with orientation that can equip them with basic hearing impairment education competencies to be able to teach and utilize assistive technology for Learners with hearing impairment in inclusive classrooms. It was recommended among others that regular teachers need to posses the requisite knowledge and skills in order to meet up with the unique instructional needs of Learners with hearing impairment.

Keywords: Learners with hearing impairment, assistive technology and inclusive classroom.

Introduction

This paper focused on utilization of assistive technology in classroom for Learners with hearing impairment an inclusive setting in Nigeria.it has become increasingly difficult to dispute or ignore the significant role technology plays within contemporary society. Specifically within the field of special education, technology has drastically altered the way teachers teach and children learn. From

the above perspective, it is clearly evidence that Learners with hearing impairment require specialized assistive and instructional technology to meet their unique educational needs. Therefore, utilization of assistive technology in classroom for Learners with hearing impairment is indeed imperative.

Assistive technology according to International Disabilities Education Act (IDEA), (2004) is any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized that is used to increase, maintain or improve the functional capabilities of learners with special needs. Furthermore, the term assistive technology refers to any device that helps a person with hearing impairment or a voice, speech, or language to communicate effectively and meaningfully (Michael & Raschelle. 2017). The term also refers to devices that help a person to hear and understand what is been said more clearly or to express thoughts more easily.

Learners with hearing impairment, are those who hearing sensitivity is defective to the extent to which the individual cannot benefit from verbal communication. The degree of loss ranges from mild, moderate, severe to profound. Hearing impairment varies in nature. It could be conductive or sensory-neural. The fundamental problems faced by the learners with hearing impairment include inability to perceive sound (hearing) and verbalization of speech sound (communication) meaningfully. Recently, there is an upsurge in the enrolment figureof learners with hearing impairment in inclusive setting. Therefore, to achieve the aim of inclusion, utilization of assistive devices cannot be gain said. Hence, this paper will only focus on assistive technologies to be utilized for learners with hearing impairment in classroom setting such as augmenting, alerting, transforming and communication/enhancement. Placing learners with hearing impairment in an inclusive setting without utilization of assistive technology will certainly not achieve the aim of inclusion where learners are suppose to participate fully in activities in and outside the classroom without any form of restriction or hindrance (Mashak, 2021).

An inclusive setting is a placement option where learners with hearing impairment are placed in the same classroom with normal children for the purpose of learning and social interaction. So therefore, utilization of assistive technology in an inclusive classroom is to enable learners with hearing impairment have access and to unlock the curriculum content is a welcome initiative which is in line with the principle of inclusion. Interestedly, covid-19 aftermath demands utilization best classroom practices to compensate for the lockdown period.

Rationale for Utilization of Assistive Technology for Learners with Hearing Impairment

Assistive technology plays a pivotal role one as a tool for instruction and two as an independent tool in which an individual can use to enhance hearing and communication skills. Technology can also greatly support learners with hearing impairment in reaching their full academic potential. Additionally, assistive technology promotes greater independent by enabling people to perform task that they were formally unable to accomplish, or had great difficulty accomplishing. Assistive technology further provides creative solution that enables the individuals with hearing impairment to be more independent, productive and included in society and community life (Christopher, 2019 ,Judix Lesley, 2021).

Moreso, with the advent of assistive technology many obstacles, barriers and bottle neck were broken and now learners with hearing impairment have greater control of their lives, participate in and contribute more fully to activities in their homes, schools, and works environment as well as their communities with minimum difficulty. When assistive technology is utilized they interact to greater extent with non-learners with hearing impairment and benefits lot from opportunities that are taken for granted. Self-motivation and independent are highly increased.

Barriers of Assistive Technology for Learners with Hearing Impairment Inclusive Classroom

Inclusive classroom is a placement option that connotes accommodation of children with diverse learning abilities and needs in the same setting. This includes having those with and without hearing impairment in the same classrooms for instruction. It can also be described as a classroom arrangement where Learners with hearing impairment and other children termed as "normal" are placed to participate in the learning process together irrespective of their uniqueness. Inclusive classrooms can also be seen as a programme in which all available resources are collaboratively utilized to meet the educational needs and challenges of children with diverse needs in the same environment. One of the philosophical perspectives of inclusive education is that children who learn together learn to live together thereafter.

The inclusive education philosophy was adopted at the World Conference on hearing impairment Education in 1994 and was restated at the World Education Forum held in Dakar (Dakar Framework for Action, 2000). This was further supported by the United Nations Standard Rules on the Equalization of Opportunities for persons with hearing impairment which proclaim active

participant and equality of education for all (Iroegbu, 2020). Furthermore, the Salamanca statement sets forth the challenge to provide education for all children, regardless of their physical, intellectual, emotional, social, linguistic or other conditions. The provision of this service was to be in 'ordinary schools'. A section of the statement endorsed by 300 participants representing 92 countries (Nigeria inclusive) stipulates that children with disabilities with reference to those with hearing impairment should attend the neighbourhood school that is the school that would have been attended if the child did not have a disability (Article 18, Salamanca Statement).

Utilization of Assistive Technology for Learners with Hearing Impairment in the Classroom

Living with hearing impairment does not need to be frustrating.There are varieties of assistive technology options to help overcome potential challenges posed by hearing impairment. The sounds of desks and chairs on the move combined with conversation between classmates and other background noises can make it extremely difficult for a learner with hearing impairment to hear the teacher. A child can miss a lot of what the teacher is saying if the teacher does not use proper communication techniques, such as looking at the child when speaking and speaking clearly. However, new technologies exist that, when integrated appropriately, can improve a learner learning experience at school. When considering the use of assistive technology for learners with hearing impairment ,there two general categories namely: augmenting devices/systems and transforming devices/systems.

Augmenting Devices/Systems

Augmenting devices/systems according to Jones and Mike (2020) amplify sound, increase signal to noise ratio such as: personal FM systems, sound-field systems, hard-wire, induction loop, infrared dove-tail-systems. Other types of personal hearing aids are body worn (BW) hearing aid, behind-the-ear (BTE) hearing aid, in-the-canal (ITC) hearing aid, bone vibration hearing aid, in the ear hearing aid, eye-glass hearing aid. Othersinclude audio- visual FM systems and amplified telephones.

Transforming Devices/Systems

Transforming devices/systems convert speech into text which among others include translation services, accessible instructional materials (AIM), captioning services for video/audio productions, face to face communication systems, text and other adaptive telephones (TTY).

Hearing Impairment Alert Devices

Hearing impairment alert devices also known as assistive technology for the deaf, and alerting systems or signalling systems, notify learners with hearing impairment that something is happening, something that they would not otherwise notice because of their inability to hear alert systems provide:

- Auditory signals that become increasingly louder, amplifying noise from alarm clocks, baby monitors or telephone
- Visual signals, like strobe or flashing lights for notification of telephone calls or smoke and carbon monoxide detectors,
- Vibrotactile signals, a device that vibrates when you are seated or in bed. These devices can also be attached to the person, on a belt or lanyard.

In addition, remote receivers placed around the house can alert a person from any room. Portable vibrating pagers can let parents and caretakers know when a baby is crying. Some baby monitoring devices analyse a baby's cry and light up a picture to indicate if the baby sounds hungry, bored, or sleepy.Others alternative communication devices are available for communicating face-to-face. The simplest AAC device is a picture board or touch screen that uses pictures or symbols of typical items and activities that make up a person's daily life. For example, a person might touch the image of a glass to ask for a drink. Many picture boards can be customized and expanded based on a person's age, education, occupation, and interests.

Keyboards touch screens, and sometimes a person's limited speech may be used to communicate desired words. some devices employ a text display. The display panel typically faces outward so that two people can exchange information while facing each other. Spelling and word prediction software can make it faster and easier to enter information.

Speech-generating devices go one step further by translating words or pictures into speech. Some models allow users to choose from several different voices, such as male or female, child or adult, and even some regional accents. Some devices employ a vocabulary of pre-recorded words while others have an unlimited vocabulary, synthesizing speech as words are typed in. Software programs that convert personal computers into speaking devices are also available.

Finally communication access real-time translation (CART) which is similar to captioning, transcribes and translates spoken words into text in real-time. The captions are displayed in internet browsers on a computer or mobile device. Using CART and captioning also makes classrooms combining CART and captioning with other hearing assistive technologies will further improve the student's learning

Assistive Device Maintenance

To ensure continuous usage of assistive technology in the classroom, maintenance programme should contain the following essential elements: education of parents and teachers on the use and care of assistive devices, a daily visual and listening examination, monthly electro acoustic checks and comprehensive physical inspection. It is therefore, the responsibilities of the educational audiologist to ensure that all the assistive devices and other hearing accessories used by the children and teacher are in good working condition. More so, that both parents and teachers are also taught how to maintain troubleshoot assistive devices and are provided with a kit that could be used to conduct a simple daily inspection of the hearing devices by the educational audiologist. Traditionally, troubleshooting kit should include the following: a drying agent for removing moisture, pipe cleaners, a battery tester, a hearing aid stethoscope, a pencil-style typewriter eraser, spare batteries, extra cords, and extra receiver/ear phone.

Typical steps in the daily visual and listening checks include (1) checking controls to ensure proper external settings; (2) checking and cleaning the microphone aperture with the bristle bush, (3) checking the receiver for cracks or other defects, (4) checking the ear mould for rough edges, cracks or cerumen (ear wax), (5) checking the battery contacts for corrosion or dirt and cleaning with a brush, and (6) testing the battery voltage.

Listening examination with the use of stethoscope include the following: (1) listening for distortion, static, or noise while some one is speaking, (2) checking the cords for intermittent signals indicative of breakage or a loose connection, (3) checking the ear mould and/ or tubing for feedback with the aid in place, and (4) checking ear mould for proper seal between the mould and the receiver. To do this, the volume is increased so that feedback occurs, when a finger is placed over the aperture feedback will stop if a good seal is present. A good maintenance programme should also include an adequate stock of learner aids (aids used as substitutes for personal hearing aids that are in need of repair)

Where the assistive device is trouble shooting,stages of complain include:

- The engine is working but not amplifying
- Sound but not loud enough,
- Volume is not controlled
- Whistling,
- Sound thin the sound is very narrow, one can't differentiate between low and high
- Can't on and off,

- Work disjointedly among others.

When such problem occurs, check:

- Battery:- whether it is not well fixed, upside down, the head is dirty, it is dead by using a battery tester (volume of any battery is 1.5). The battery may not be the right type. The battery head may be rusted if so, clean with saw paper or mentholated spirit.
- Coding or tubing system: check if there is a breakage along the line.
- Check the fitting between the receiver and the socket make sure it is well fitted (tight)
- Check the ear mould: make sure it is customary and fitting- no leakage and make sure the ear is cleaned
- Check the volume control
- Check the attenuator or regulator
- It should be the last to be worn and fist to be removed.

Simple what not to do:

- Don't try the amplifier, send to the manufacturer,
- Don't put on when sleeping, it should always be removed ,
- It should not near water and children,
- Don't wear first and remove last.

Recommendations

Following the importance of utilization of assistive technology in an inclusive setting for Learners with hearing impairment in the Nigeria context, it is recommended that:

1. All learners with hearing impairment places in an inclusive setting should conduct hearing screening to determine the degree of loss, side of liaison
2. and mature loss. This is to determine appropriately assistive devices require by each learner.
3. The services of an educational audiologist in various districts where the schools are located for periodic monitoring should be employed
4. Regular teachers in an inclusive classroom should be trained on how to use the assistive devices
5. Assistive devices are quite expensive government should subsidize the cost to enable low economic learner to also benefit.
6. Budgetary allocation of such schools should be increased to provide, maintain and replace assecories.
7. Collaboration with foreign producers to use local materials will increase accessibility and availability of the products and increase wider usage.

Conclusion

From the above discussion, it is concluded that: Inclusive classroom has come to stay in the system of educating Learners with hearing impairment. Hence, regular teachers who are not originally trained to teach Learners with hearing impairment ought to be given orientation on utilization and of assistive technology and management of Learners with hearing impairment in inclusive classroom. The success of inclusive classroom depends to a large extent, the willingness and ability of the teachers to accommodate as well as develop competence on utilization of assistive technology for Learners with hearing impairment. Competency of regular teachers in utilization of assistive technology is key in inclusive setting without which the aim of inclusion would be defeated Using assistive technology can undoubtedly assist the learner in his studies and daily lives. It is also capable of facilitating both teaching and learning and greatly increase performance. With the use of assistive technology communication of messages become more clearly and accurately as well as enhancement of interaction. Accommodating Learners with hearing impairment involves modification of teaching methods, materials and instructional strategies without altering the standard of learning and their expected requirements. Also, it involves giving extra time for the children to complete tasks, assignments or examinations, breaking up tasks into simple and smaller parts, carrying out individualized teaching, modifying class environment, providing models of objects or real objects in the classrooms. Hence, adaptions and modifications can be applied to classroom instructions, activities, learning materials and environments of Learners with hearing impairment to ensure their effective inclusive education.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

NEED FOR POLICY FRAMEWORK ON SIGN LANGUAGE INTERPRETERS' JOB PERFORMANCE FOR SUSTAINABLE DEVELOPMENT OF DEAF EDUCATION IN CALABAR, NIGERIA

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Abstract
Sign Language interpreting is an educational supportive service that is meant to bridge the communication gap between persons with hearing loss and those with intact hearing in order to provide equal access to information for the overall development of this category of persons in the society. *This study* was carried out to examine the need for policy framework on sign language interpreters' job performance for sustainable development of deaf education in Calabar, Educational Zone in Cross River State, Nigeria. Two research hypotheses were formulated to guide the study. The study adopted a case study design. Target population was made up of all the 7 sign language interpreters in the department of special education, university of Calabar. A 20 item Likert-like questionnaire form on need for policy framework on sign language interpreters' job performance for sustainable development of deaf education (NPFSLIJPSDDE) was administered on 7 respondents as instrument for data collection. The result revealed that sign language interpreters' recruitment and remuneration were significantly influenced by sustainable development of deaf education. The study recommended that intensive effort should be geared towards proper recruitment, job specification, remuneration, training and retraining of sign language interpreters to facilitate full integration of persons with hearing loss for sustainable development in an inclusive society.

Key Words- Policy Framework, Sign Language Interpreters, Deaf Education

Introduction

The ability to communicate effectively is essential for cognitive development, social and emotional wellbeing, linguistic competence, and academic growth. Students with hearing loss have needs that differ from their hear ing peers. Most hearing children enter school with a basic command of language. They are able to receive, express and process language and, as a result, have extensive vocabularies. Children who are deaf or hard of hearing on the other hand usually do not enter school with the same language background as their hearing peers. Their unique language and communication needs present special challenges to educators regarding appropriate programming and placement. Rosenstock and Rachel

(2008) noted that it is critical for these students to have a formal communication system that is accessible and allows for efficient social interaction and the sharing of ideas. Without communication skills, a student will be severely limited in language development and may lack appropriate social skills and opportunities for meaningful interaction with peers. For many students who are deaf or hard of hearing placed in the general education environment, educational interpreting is the support service that allows them equal access to instruction to benefit from the overall school experience.

Interpreting is defined as the transmission of meaning from one language to another, which is easily understood by the listener. A sign language interpreter translates between spoken language (such as English or local language) to manual communication (sign language) for the understanding of students or individuals with hearing loss. According to *Stone and Christopher (2009),* the interpreter facilitates communication so that the parties involved have equal access to information. A sign language interpreter should be fluent in both the spoken language and the signed language used in order to accurately convey the message. Most interpreters received their training in a formal setting while some received in an informal setting. *They* are *trained* to *be able to listen to another person's choice of words, inflections and intent while simultaneously interpreting them into the visual language signs using the mode of communication requested without altering the speakers mind. They are also able to comprehend the choice of signs, inflections and intent of the person signing and simultaneously speak articulate and appropriate English. Sign language Interpreters apply specialized knowledge and skills to facilitate effective cross-cultural communication accurately and impartially between people using spoken and signed languages.*

But often time it is just few sign language interpreters that are recruited or trained to work with an institution. Obviously, an adequately number of trained sign language interpreters is required in the provision of meaningful educational services to students with hearing loss. Special education supportive staff such as sign language interpreters, psychologists, physiotherapists, social workers, vocational instructors and so on are not really employed directly to take care of educational, motor, social, psychological, vocational needs of persons with disab-ilities. Vandeh (2003) emphasized that in order to have a successful education of students with hearing loss, there is need to involve different professionals, who will be of great assistance to them. Unemployment of personnel such as sign language interpreters, lack of training and retraining, form the major hindrances to deaf education in Nigeria (Eleweke, 2002). Evidence, however, indicates that Nigerian schools are faced with serious shortage of sign language interpreters as supportive

staff (Eleweke, 1999). This is also in agreement with the World Bank (2005) reports which stated that there is a staffing deficit in Nigerian colleges and universities, and with that the few *sign language interpreters that are being employed are highly overburdened.*

The average wage for a sign language interpreter in the United States is between $20.73-25.17 per hour, the average wage for a sign language interpreter in United Kingdom is £15.19 per hour and average wage for a sign language interpreter in South Africa is R109,500 but in Nigeria, to the best of the researcher's knowledge, there is no such salary scale which makes most organizations to believe is a charity work which is a trait of compensation.

"A trait of *compensation* refers to a range of salary and benefit options that enable practitioners to secure and maintain gainful employment and to be self-supporting (Soder, 1990)". The implication is that having known the complexity of knowledge and skills required, high levels of compensation are unavoidably necessary to pay the recruited persons which will help to retain qualified and motivated individuals (Hodson & Sullivan, 1995). Payment for interpreting services has been a long-standing issue. However, recruiting and sustaining a qualified workforce may depend on salaries associated with it. But in the real world in Nigeria, this is not so. *This may also be linked to no policy framework.*

Policies are statements of principles and practices dealing with ongoing management and administration of the organisation (NSW Industrial Relations 2013). *Policies act as a guiding frame of reference for how the organisation deals with everything from its day- to-day operational problems or how to respond to requirements to comply with legislation, regulation and codes of practice. Policies are a statement of purpose, which highlight broad guidelines on action to be taken to achieve that purpose and* a nation's policy on education is government's means of achieving that part of the national goals which can be done using education as a tool (Federal Republic of Nigeria, 2004). *It will be a welcome development if sign language interpreters will come as a body, have a policy which will help to improve their job performance for the sustainable development of deaf education.*

In general terms, the idea of sustainability is the persistence of certain necessary and desired characteristics of people, their communities and organizations, and the surrounding ecosystem over a very long period of time. Achieving progress toward sustainability thus implies maintaining and preferably improving, both human and ecosystem wellbeing, not one at the expense of the other. Sustainable development is not a "fixed state of harmony." Rather, it is an ongoing process of evolution in which people take actions leading to development that meets their current needs without compromising the ability of future generations to meet their own needs (Brundtland, 1987). Development means to expand or realize the potentialities of bringing gradually to a fuller, greater, or

better state. It has both qualitative and quantitative characteristics and is to be differentiated from growth which applies to a quantitative increase in physical dimensions.

Code of conduct binding sign language interpreters on their duties

- The interpreter should be able to keep all information strictly confidential.
- The interpreter should accurately translate the spirit and intent of the parties involved, using language most readily understood by those who are being served
- The interpreter should not counsel, advise or interject personal opinion
- The interpreter should accept interpreting assignments using discretion with regard to skill, setting and consumers involved.

Benefits of sign language interpreters' policies

It will ensure uniformity and consistency in decision- making and operational procedures.
It will foster stability and continuity.
It will assist in assessing performance and establishing accountability
***It will** clarify functions and responsibilities.*

Statement of Problem

Sign language interpreting has been a lucrative job, by which an interpreter stand as a mediator between the speaker and person with hearing loss. But it has been noted that there is no policy covering them which serves as a backbone. The interpreters often stand and sign for more than one hour because of few hands in the organisation which can be dangerous to their health and also reduces the effectiveness of the service delivery. Even after rendering such services, they go home with little or no pay. This is because many organizations/offices want to minimize their expenses, tend to employ only one interpreter rather than two. This results in the interpreters working for a longer time than is recommended, whereas interpretation is effective within the first 35-45 minutes. There is no specific definition for the job description for interpreters. This results in interpreters being asked to do additional tasks as secretaries, helpers, or guides. It is based on this backdrop that the researcher sought to investigate the the need of policy framework on interpreter's job performance for sustainable development of deaf education.

Purpose of the Study

The aim of this study is to determine the need for policy framework on sign language interpreters' job performance for sustainable development for deaf education in Calabar, Nigeria, Precisely; the study was designed to determine the

influence of;

- Sign language Interpreters' recruitment for sustainable development for deaf education
- Sign language Interpreters' remuneration for sustainable development for deaf education.

Research question

- How does Interpreters' recruitment influence sustainable development for deaf education
- To what extent does remuneration influence sustainable development for deaf education

Research hypothesis

There is no significant influence of Interpreters' recruitment on sustainable development for deaf education. There is no significant influence of remuneration on sustainable development for deaf education

Methodology

The research design adopted for this study was a case study design. A case study design is a detailed, in-depth description of a single unit, subject or event. It is therefore concerned with everything that is significant in the history and development of the unit, subject or event (Isanghadigi, 2012).

Population and sample. The target population for the study comprised all the sign language interpreters in university of Calabar, Nigeria. A total of seven (7) sign language interpreters were made up of the population of the study as they were Purposivly selected for the study.

Research instrument. The instrument used to collect data for the study was a questionnaire tagged 'Need for policy framework on sign language interpreters' job performance for sustainable development of deaf education questionnaire' (NPFSLIJPSDDE). NPFSLIJPSDDE was designed by the researcher, made up of 20 items with four-point scale of Strongly Agree, Agree, Disagree, and Strongly Disagree. The items on the instrument covered different aspects of the variables being considered.

Procedure for data collection. The questionnaire was administered by the researcher to the respondents and the qustionnaire administered were collected.

Method of data analysis. The data from the questionnaire were analyzed in line with the null hypotheses from the findings. Interpretations were made based on the statistical evident obtained.

Table 1: Summary of Regression analysis of Influence of Sign Language Interpreters' Recruitment and Training for Sustainable Development of Deaf Education.

	Sum of square	df	mean square	F-cal	F cri	Decision
Regression	10.639	2	10.689	.809	403	Reject Ho
Residual	78.861	5	13.143			
Total	89.500	7				

R=345, R^2=928

Table 1 gives the summary of the regression test. The result shows that the calculated F-value is .809 at 2 and 5 degree of freedom and .05 alpha level, the critical F value is .403. Since the calculated F is greater than the F crit, the null hypothesis is rejected and the alternate is upheld. Thus, sign language interpreters' recruitment is significantly influenced by sustainable development of deaf education.

Table 2: Summary of Regression analysis of Influence of Sign Language Interpreters' remuneration for Sustainable Development of Deaf Education.

	Sum of square	df	mean square	F-cal	F cri	Decision
Regression	31.803	1	31.803	3.307	.119	Reject Ho
Residual	57.697	6	9.616			
Total	89.500	7				

r= .596 R^2=.355

Table 2 gives the summary of the regression test. The result shows that the calculated F-value is 3.307 at 2 and 5 degree of freedom and .05 alpha level, the critical F-value is 119. Since the F-cal is greater than the F-crit, the null hypothesis is rejected and the alternate is upheld. Thus, sign language interpreters' remuneration is significantly influenced by Sustainable Development of Deaf Education.

Discussion of findings

Result from hypothesis 1 revealed that that sign language interpreters'

recruitment/training is significantly influenced by sustainable development of deaf education. The finding is in line with Eleweke, 2002 who noted that unemployment of sign language interpreters, training and retraining form the major hindrances to deaf education in Nigeria.

Result from hypothesis 2 revealed that that sign language interpreters' remuneration is significantly influenced by sustainable development of deaf education. This finding is also in agreement with Hodson and Sullivan, 1995. They revealed that having known the complexity of knowledge and skills required in signing, high levels of compensation are unavoidably necessary to pay the recruited persons which will help to retain qualified and motivate the individuals.

Recommendation

- ✓ Sensitization of the community about the roles, duties, rights and obligations of sign language
- ✓ Interpreters, establishing requirements for hiring an appropriate number of sign language interpreters for situations that continue for an extended time. It is very important for countries to have a professional body for sign language interpreters. This body should be empowered to create awareness about sign language interpreters and advocate for the recognition of their rights and needs. Supporting laws and policies should be implemented as a major tool in the advocacy and lobbying for better welfare of sign language interpreters.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

CAREER AWARENESS AND ENTREPRENEURSHIP IN INCLUSIVE EDUCATION: A SUSTAINABLE EMPOWERMENT FOR PERSONS WITH DISABILITIES

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Abstract
This paper examined the era of corona virus pandemic as it affects every individual and organizations including persons with disabilities. Relevant measures were suggested to be focused and adopted to overcome the predicaments of post corona virus era to make the lives of learners in inclusive education more meaningful. The paper captured the concept of career awareness and entrepreneurship and how it can impact on the lives of learners in the inclusive education. Need for career awareness and entrepreneurship in inclusive education were explicitly explained. Five recommendations were made and one of which was that an empirical study should be conducted to ascertain the effectiveness of career awareness and entrepreneurship for learners with special needs. It was concluded that career awareness and entrepreneurship when effectively provided to the learners in the inclusive education, it might reflect on their lives more meaningfully to live a life worth living than ample of paper qualifications.

Keywords: Career awareness, Entrepreneurship, disability and inclusive education.

Introduction

Inclusive education is an educational model where all students regardless of their abilities learn together in one environment, with the aim to ensure that all students are treated fairly and get equal opportunity. Under inclusive education environment, students' diversity and uniqueness ought not be discriminated. But unfortunately, there are still instances of students being treated differently based on their unique qualities in the areas of students' disabilities level which required the involvement of the communities and stakeholders in curbing the menace. It has been noticed that persons with disabilities in inclusive education are ignored in times of information regarding available and accessible careers.

All these incidences contravened the National Policy on Education (2014), in a statement on equal and functional education. The policy stated that, every child

in Nigeria has equal right to functional vocational education. The policy also gave the exceptional persons right to demand for education along with regular persons as well as counselling services. National Policy on Education (2014) section 7 stated specific policy directives for exceptional persons; "to make provisions of vocational schools for those who require such courses". Unfortunately, special vocational schools are not common in most of the state capitals and local government areas where these learners are included.

No matter how much knowledge of inclusion bring to the table, the only way real change will happen is by the support commitment of building a broader society which they can work and earn a living to reduce their career hardship. Even after acquisition of educational certificates from various academic institutions, most of them still stumbled to career popularly known as street begging which worsen their situations as they faced series of provocations, that deals with persistent conflicts, insecurity challenges, other forms of violence and exposure to diseases as they move from one location to the other.

Career is what one has been trained for, enlightened on it competently and engaged in it, in order to earn a living. Entrepreneurship is a process of capacity building with aim to develop, organize and manage a business venture along with any of its risks to make a profit. Career awareness is a programme that facilitates career development by exposing the individuals to the world of work through the world of information. This information is concerned about job facilities; job requirements and job expectations. Entrepreneurship education will focus on teaching persons with disabilities in the inclusive education how to identify their potentials in careers that suit their background for self-employment. This is not only essential to create opportunities for persons with disabilities, but also of paramount significant to the national economic growth and sustainable development by bringing the vast potential of a population estimated at over 1 billion people into the fold.

Thus, there is need to provide career awareness and entrepreneurship in inclusive education as persons with disabilities are faced with challenges of unemployment unlike regular persons who dominated and occupied all the positions in countless careers. Okwubunka (2017) lamented that "unemployment has painfully become a feature of our present life situation in Nigeria, and graduating students from all levels of institution face this challenge. The purpose of career awareness is then to clarify what needs to be done to alleviate this ugly situation". Many studies have shown that companies and organizations that prioritize in hiring persons with special needs have a positive impact on profits and better corporate culture. This was revealed by U.S. companies that excel at

disability employment and inclusion. They also deliver higher shareholder returns than their competitors, according to a 2018 study by Accenture.

The year 2020 was an era of sober that every individual experienced the hardship of the lockdown as a result of COVID-19 pandemic, including persons with disabilities in the inclusive education. These learners are; those with learning difficulties, developmental disabilities, communication, behavioural, physical and emotional disorders, as well as gifted and talented (Hallahan, 2012). All necessary actions taken by the government and good philanthropist seem not to include them and address their needs. Hence, all hands have to be on deck for an account of necessary measures regarding their adequate knowledge of diversified career skills needed to be planned, developed and executed in the inclusive education to cater for their self-reliance. For effective organization and implementation, communities and stakeholders need to contribute meaningfully in cash and action to compliment the effort of the government.

This paper seeks to create meaningful and everlasting change in the way persons with disabilities might be self-reliance and included in the labour market, specifically in this our noble country (Nigeria). The purpose of this paper, is to suggest career awareness and entrepreneurship in inclusive education to empower persons with disabilities to eradicate unemployment, poverty, over dependency and career misfit as community and stakeholders' contribution in inclusive education. The paper, also seeks to create meaningful and everlasting change in a way that persons with disabilities might be self-reliance and included in the labour market, specifically in this our noble country (Nigeria). It will enhance skilful mechanisms in inclusive education and enables persons with disabilities to cope-up with a normal life situation at any time.

The Concept of Career

Career is an occupation or an employment which enable an individual to regularly earn a living and it is a long life process (Wikipedia, 2019). A career could be defined as what you do for a living and range from those that require extensive training and education such as; teaching, medical& veterinary careers, law, news casting, engineering, carpentry, tailoring and hairstyle (Wikipedia, 2019). The wise choice a career demands is the accurate information available on each career. While, the authors. They perceived career to be a lifelong occupation that have no retirement period. Therefore, career is necessary to meet the needs of persons with disabilities to live a life that worth living and reduces the hardship of financial mess. To achieve that, there must be adequate career awareness in line with entrepreneurship education.

Career Awareness

Career awareness is the process of providing and acquiring all necessary information about a particular job to maintain it for satisfaction (Tom, 2019). It is the adequate information on career opportunity within the environment to serve as a guidance in the choice of career that suit interest, aptitude and personality traits of persons with disabilities. Career awareness is a complete way of eliminating career ignorance, and an antidote to a job dissatisfaction and labour misfit. It helps persons with disabilities to identify and better articulate their unique interests, values and skills. Career awareness keep them fully and continuously acquainted with career opportunities. It provides obligation to know about the world of work and its opportunities as well as paving physical space for them to meet with representatives of each career regarding job opportunities, describing jobs according to the levels of educational qualifications necessary for entry. The authors viewed career awareness as necessary points to notice by every individual before opt any occupation.

Concept of Entrepreneurship

The process of setting up a business is known as entrepreneurship. Adam H. (2021) define entrepreneurship as a process of designing, launching and running a new business which is a capacity building with wiliness to develop, organize and manage a business venture along with any of its risks to make a profit. To the authors, entrepreneurship is a vocational skills acquisition in different sort of vocations with the aim to produce a good that is consumable within the society to enable perfection and regular earning for livelihood. Entrepreneurship is the extraction of economic value which enhance initiative in job and wealth creation to become self-employable within existing organizations, across the social, public and private sectors. It is perceived as change that generally entails risk beyond what is normally encountered in starting a business.

The programme seems not or have little inclusion of persons with disabilities in inclusive education and the programme often not to be specifically or specially designed to meet the needs of such persons. This situation, is a problem to persons with disabilities, their families and society.

Entrepreneurship Education

Entrepreneurship education is about transforming an idea into reality and then put it into practice. Entrepreneurship education seeks to provide students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings. Variations of entrepreneurship education are offered at all

levels of schooling from primary, secondary schools and graduate university programmes (UNESCO 2013). Thus, persons with disabilities inclusive education will be taught the skills in various vocations in written and practical experience according to their developed potentialities.

Need for Career Awareness for Persons with Disabilities

Transition from school to work is one of the most essential life events for every individual, including persons with disabilities. For learners with disabilities, this kind of transition is often very challenging, due to several limitations imposed by their disabilities and further limit their career preferences. Therefore, there is need for adequate career awareness to enable them notice different types of available careers that suit their capabilities as well as information about all requirements and skills demanded. Biased mindsets, make some employers hesitate to hire persons with disabilities to the labour market even if they possessed educational requirements, this situation may throw learners with disabilities to psychological disturbances regarding career. Most especially as some abled learners have full access to competition in the labour market. As such, they need career awareness. Career awareness is the best way of patronizing the job to cater for restrictions imposed on the occupations of persons with special needs (Wikipedia 2019). This is a yawning gap which must not be allowed to exist any longer especially at this era of insecurity challenges nationwide. Henceforth, career awareness is necessary to be provided at inclusive education.

This is incongruence with the Trait and Factor Theory of Career Development and Choice. The theory stressed three proportions that attract individuals to make occupational choice. Firstly, an individual should have a clear understanding of himself, his abilities, interests, aptitudes and limitations. Self-actualization is very vital in occupational choice and preferences. Secondly, there should be a good knowledge of the requirements and conditions of service of different occupations. Thirdly, an individual need to be fully aware of the two groups described above. This theory proposes that for any individual to make a realistic vocational choice, he should match his ability with the demands of the preferred occupation. A brief synthesis of these demands are as follow: *"The rapid changes going on in the world of work around them, call for careful career guidance so that the chances of making career errors should be reduced to the barest minimum. There should be apparent work options and career alternatives as new careers are added every now and then due to technological breakthroughs and new inventions".*

Proportion of persons with disabilities has little or no knowledge of these alternatives. Therefore, they need to be helped through career awareness.The fact

that each student is unique, calls for career awareness to meet their peculiar needs. This awareness will further enlighten them on implications of lack of career choice. Such choices imply spending a good percentage of life in it and ability to remain in a certain environment. Henceforth, persons with disabilities need career awareness.

Purpose of Career Awareness and Entrepreneurship in Inclusive Education

To build dynamic and creative thinking in fostering the spirit of independence among persons with disabilities. To create job and wealth to eradicate poverty and dependency among individual with disabilities. To determine a suitable and gainful employment and how to relate with colleagues and others in the inclusive environment in order to enhance personal adjustment (Wikipedia 2019). To inculcate in the minds of persons with disabilities national economic and sustainable development through harnessing and utilization of natural resources for locally made productivities.

Impact of Career Awareness and Entrepreneurship on Persons with Disabilities in Inclusive Education

Discovery of word of work: Career awareness provides opportunities for persons with disabilities to discover available careers to be engaged despite their disabilities.

Academic requirement: Career awareness signifies the production of persons with disabilities who are complete in the basic academic skills requirement in the diversified economy and grooming with the changing society.

Ease economy: It reduces economic hardship even during and after any pandemic outbreak.

Opportunity for career preference and choice: It makes them to be capable of choosing a meaningful set of work values that will lead them to possess a desire to work and well equipped with career decision making skills, job hunting and job getting skills.

Skill acquisition: Skills at a level that will allow them to gain entry with and attain a degree of success in the occupational society and be successful in cooperate work that they are able to choose for themselves as a desired lifestyle within their limitations.

Employability: Efficient acquisition of entrepreneurship makes persons with disabilities to be employable.

Independent decision making: It makes them to be independent decision makers in determining the kind of career to engage, and be in adequate possession of required information on where and how to practice and produce the acquired entrepreneurship.

Foster self-esteem and confidence: Entrepreneurship usually seeks to foster self-esteem and confidence by drawing on the talents and creativity of entrepreneurs with disabilities in building the relevant skills and values that will assist them in expanding their perspectives on career opportunities.

Success: Provides knowledge, skills and motivation to encourage entrepreneur success in a variety of settings using methodologies that are based on the use of personal, behavioural, motivational, attitudinal and career planning activities.

Vocational enhancement: They are enlightened with updated current innovations about their vocations as deemed by the response of the consumers from time to time.

Setback of Drought Career Awareness and Entrepreneurship to Persons with Disabilities in Inclusive Education

- Unaware of appropriate careers: There will be no or little adequate knowledge and skills about various careers that are available and affordable to persons with disabilities.
- Career error: They may just stumble into a career by shear-luck or privilege leading to job dissatisfaction because they may likely not to cope up with the assigned responsibilities due to their disabilities.
- No career choice: They will not be well equipped with career information and career preferences that will determine their eventual choice. Such learners may become perpetual dependents and experience challenges of insufficient skill acquisition and unemployment. These circumstances ultimately attracted them to street and home to home begging, emotional and psychological disturbances as well as nuisance in the society.
- Miserable life: They may not live a live that worth living to contribute their quarter to themselves, family and national economic and sustainable development.

Recommendations

- Practical application of career awareness and entrepreneurship should be organized to persons with disabilities right from primary school to minimize their financial hardship.
- Entrepreneurship education should be taught in inclusive education in recognition of their disabilities.
- Working with government representatives to develop and implement specific legislation to disability inclusion in educational institutions to create more accessible entrepreneurship opportunities and should be specifically design to meet the needs of persons with disabilities which will enable them cope up promptly.
- Teachers, parents and community leaders living within inclusive education environment should be consulted for any entrepreneurship planning and implementation for efficient ideas, decision making and active participation.
- Empirical study should be conducted to examine the effectiveness of career awareness and entrepreneurship in inclusive education with persons with disabilities.

Conclusion

It can be concluded that career awareness and entrepreneurship when effectively implemented as part of community and stakeholders' participation in inclusive education, it might eradicate unemployment, poverty, over dependency and related problems that surround their predicaments and mitigate the risks associated with financial insecurity at this POST-COVID-19 era. It will reflect on the lives of persons with disabilities more effectively to live a life worth living than excellent paper qualifications. This might enable them contribute meaningfully to the national economic development and lessen unemployment rate that has becomes a social problem globally.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

IMPACT OF PSYCHO-SOCIAL VARIABLES OF SIGN LANGUAGE INTERPRETERS ON MOTIVATION AND EDUCATIONAL ADJUSTMENT OF STUDENTS WITH HEARING IMPAIRMENT IN UNIVERSITY OF CALABAR

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Abstract
This study was conducted assessed the impact of teachers' psycho-social variables on learners' (deaf) motivation and educational adjustment. A detailed literature review provides the researcher with a solid background on which the hypothesis used in the study was based. The study was a descriptive survey while the population was the entire deaf interpreters and deaf students in the faculty of education, University of Calabar. Samples were drawn through the use of purposive sampling techniques. The instrument for data collection was a self-structured questionnaire, validated and trial-tested for reliability purposes with a reliability coefficient of (α = .79). Data collected were analysed using canonical correlation statistical analysis at .05 level of significance. The result of the analysis revealed that the two set variables (psycho-social variables of interpreters, motivation and academic adjustment of deaf students), were inter-dependent on each other and that the magnitude of the relationship was significantly high. Based on the findings of the study, a conclusion was drawn and it was recommended that sign language interpreters should maintain their psycho-social behaviour as it contributes significantly to student academic adjustment.

Keywords: psycho-social behaviour, academic adjustment, motivation, sign language interpreters, students with hearing impairment.

Introduction

Learning and adjustment to academic activities is very important to all student in the academic environment whether disabled or not. This is why most students are concerned about their academic performance. Often, students tend to aim at achieving good academic performance, and on the part of the school, character mou lding is also important in addition to the academic record. However, the situation becomes worrisome when disabled students are involved. Students with special needs faced educational challenges with diverse cognizance. Some of the challenges faced by such students include but are not limited to;

1. Inability to learn and adjust favourably to the academic environment.
2. Poor social and emotional interaction (Moores, 2001).
3. Poor expressive writing skills El-Zraigat (2007)
4. lack adequate reading skills in general. El-Zraigat (2010)
5. Suffering from communication, academic, social, emotional, and family problems El-Zraigat and Al-Emam (2005)
6. Inadequate facilities, teaching/learning aids, and poor instructional processes. Agyire-Tettey et al. (2017)
7. Stigma by community or community attitude, inadequate specialist teachers and resource centres, shortage of specialized teaching and learning resources and assistive devices, ignorance or unawareness of most people that disability is not inability (Malawi Government, 2009).
8. Developing a new social network, keeping up with academic work in an environment of much greater autonomy, and negotiating the temptations of a college environment (Chong et al., 2009).

Motivation theories such as Hierarchy of needs theory (Maslow 1970), Need to Achieve Theory (Murray, cited by Franken 1988), Expectancy value Theory (Atkinson 1966), Attribution Theory (Weiner 1974), Social Cognitive Theory (SCT) (Bandura 1986, 1989), Goal Theory (Pintrich 2000) and Self-determination theory (SDT) (Deci & Ryan 1985) suggested that motivation is a driving force in solving challenges associated with deafness/hard-of-hearing. Each of the theory maintained that motivation drive behaviour, while absent of motivation kills behaviour. Motivation is one of the most important factors that push/pull every student to pursue and achieve his or her goal. It is a driving force that makes a student to put maximum effort in other to achieve the aim and objective of going to school. It implies instilling in students the urge or desire to act willingly in specific ways to achieve high result. This kind of motivation can be intrinsic or extrinsic. Whereas intrinsic motivate come from within and the satisfaction derived also is within; extrinsic motivation in the other hand is external, and the satisfaction derived is equally external and can easily be observed by others.

Paloú, Munteanub, Costeac, Macsingad (2011) noted that motivation influences student engagement and achievement behaviour, and the activities chosen, the effort invested, the persistence in tasks, and the performances achieved, respectively. Also, there is a tight interdependence between the motivational and cognitive components involved in the learning process. Kusurkar, Cate, Asperen and Croiset (2011) maintained that Extrinsic motivation is composed of four different stages: external regulation, introjected regulation, identified regulation and integrated regulation. 'External regulation', means

studying because of pressure or expectation of others, without interest in the study. 'Introjected regulation' means there is a realization of the importance of the study but the causation is perceived as external. 'Identified regulation' means that the importance of the study is valued, has been identified with and the regulatory process has been accepted. 'Integrated regulation' means that the acceptance of the importance ascribed to the study has been fully integrated into the individual's coherent sense of self; the locus of causation is now internal. Kusurkar, Cate, Asperen and Croiset (2011) may mean that internal and external motivations are interrelated. There is a possibility for external motivation to elicit internal motivation and vice-versa. This however may depend on the feelings of autonomy, competence and relatedness a student experiences in his or her study, Studies have shown that motivation influences learning, academic performance, success and adjustment to the academic environment, (Vansteenkiste et al. 2004, 2005; Hustinx et al. 2009; Vansteenkiste et al. 2004, 2005; Hustinx et al. 2009).

Consequently, Fischer (2009) succinctly argued that academic and social conditions in high institutions brought about anxiety, a sense of incapability and feelings of inferiority for many students especially students with special needs (the deaf and hard of hearing). Therefore, the successful accomplishment of educational goals depends on adjustment to the social and academic setting of the high institution. According to Baker and Siryk (1989), academic adjustment refers to motivation for learning, taking actions in order to comply with academic demands, a sense of purposefulness and general satisfaction with the academic environment. On the part of Russell and Petrie (1992),a number of factors to be accounted for in getting a complete picture of students' academic adjustment include the following among others; aptitude, ability, study skills, test anxiety, academic motivation, self-efficacy, and attribution. These factors suggest that adjustment is an important aspect in determining college deaf students' academic performance (Russell and Petrie, 1992; Baker and Siryk, 1989; Edward, 2003; Bettencourt et al., 1999; Petersen et al., 2009).

Deaf students who fail to cope in the school environment are prone to psychological distress, including anxiety, low academic self-efficacy, and poor time management (Martha, 2003). As deaf students are admitted into the school environment, they are expected to adjust to different school variables. Such factors may include, their mode of communication, participation in social activities, accomplishment of academic tasks, and punctuality to class among others.

According to Feldinald and Feldinal (2006), adjustment is the continuous process of satisfying ones' desire, mastery of the environment and sense of being at peace with oneself. Hence, it is mandated that deaf students must be adjusted to

the current academic environment to successfully complete their programme of study. Thus, it implies that adjustment is the ability to select appropriate and effective measures so as to meet the demands of the academic environment while maintaining a healthy attitude towards the current circumstance. Spincer and Jeffrey (1995) reported that students who fail to adjust face a torrid time and may commit suicide, which is reportedly the second leading cause of death in high institutions in the western part of the world. Tinto (1993) pointed out that students' persistence and later educational outcomes require individuals to adjust both socially and intellectually such that: "The period of adjustment to new situations is often painful and sometimes so difficult as to cause young people, and sometimes older students, temporarily to give up on even strongly held goals. For some, it is a question of learning how to apply previously acquired intellectual skills to new situations" (p.47).

Most importantly, the positive side of academic adjustment is noted by Petersen et al. (2009). The authors noted that academic adjustment is an important factor in predicting college outcomes. Similarly, Edward (2003) noted that students' inability to adjust to academic challenges such as environmental changes, inappropriate course choices, personal issues, course work assignments, examination and other forms of assessment etc were among major causes of withdrawal from studies. College students are expected to make a series of adjustments to cope with their new ways of life.

An adjustment has been defined differently by various scholars. Kim (1995) defined adjustment as a complex and multi-faceted concept that can ultimately lead to the achievement of an appropriate fit between the person and the environment. Similarly, Zea et al. (1995) defined successful adjustment to college as "being socially integrated with other students, participating in campus activities, responding to academic requirements, and being attached and committed to the educational institution". Pascarella and Terenzin, (1991) posited that adjusting to university/college consists of two fundamental complementary processes of de-socialization and socialization. De-socialization entails the changing or discarding selected values, beliefs and traits one brings to college in response to the new experience. Pascarella and Terenzin (1991) further explained socialization as the process of being exposed to and taking on some of the new values, attitudes, beliefs and perspectives to which one is exposed at the college.

Zeidner (1992) defined academic adjustment as developing appropriate learning skills, writing and summarizing, thinking and memorizing, coping with masses of reading materials, submitting papers, summarizing lectures, writing seminar papers, effective time management and taking examinations. Pascarella

and Terenzin (1991) asserted that students who are academically adjusted accomplish different educational demands in a timely manner and have better academic performance. The operational definition of academic adjustment giving by Higher Education Research Institute (HERI, 2005) was of more interest to the current researcher. The author operationalized academic adjustment in form of:

1. Understanding what lecturers expect academically
2. Developing effective study skills
3. Adjusting to academic demands of the college, and
4. Not being intimated by lecturers.

Students with disabilities are sensitive to people's reactions toward them, which may inadvertently have an impact on their self-perception (Weisel 2005). It appears, however, that the more included individuals with hearing impairments are into general types of activities, the more positive attitudes they felt toward themselves and their peers. Having said that, it is worth noting that sign language interpreters have a crucial role to play in assisting deaf learners. Their psychosocial characteristics contribute to a wide range of diverse job expectations. In addition to interpreting classroom lessons, interpreters are vested with the task of filling the vacuum created between the deaf/hard of hearing individual and the hearing community. Interpreters are also vested with the task of merging the deaf culture and hearing culture together, hence closing the inequality gap that exists between the two categories of students.

However, the Nigerian school system and the society at large is a stage that which both school, work and living environments are major sources of adverse psychosocial factors which result in an unpleasant experience. Adverse occupational psychosocial factors, however, have become increasingly significant. Psychosocial factors here are psychological and social characteristics of the sign language interpreters which pose a threat to their classroom behaviours and be extension teacher/student relationships. Some of such factors include but are not limited to psychosocial personality, motivation, social interaction skills, stress, self-concept, and environmental condition. This variable has been widely acknowledged by scholars as being pertinent to the job performance of any teacher not only sign language interpretation(Melhinsh 1998, Philips and Segal 1996, and Arroba and James 2002).

Additionally, the twenty-first-century teaching roles and by extension, sign language interpreting is more demanding than before. Psychosocial factors are elements that impact employees' psychological responses to work and work conditions, potentially causing psychological health problems. Psychosocial factors such as teachers' personality, emotions, work experiences, roles and

responsibilities, may have contributed in one way or the other to stress and work burnout which can certainly influence job performance.

Purpose of the study

The main purpose of this study was to examine the impact of psycho-social factors of sign language interpreters on motivation and educational adjustment of deaf students in University of Calabar.

The study specifically sought to:

(i) To examine the relationship between interpreters' psychosocial factors, motivation and academic adjustment of students with hearing impairment.

(ii) To determine whether the relationships were significant between interpreters' psychosocial factors, motivation and academic adjustment of students with hearing impairment.

(iii) To quantify the strength of the relationship of interpreters' psychosocial factors, motivation and academic adjustment of studentswith hearing impairment.

Research question

The following research questions guided the study:

Is there a significant relationship between interpreters' psychosocial factors, motivation and academic adjustment of students?

The sub-questions which were used to answer the main research question above were:

(i) Is there any significant relationship between interpreters' psychosocial factors, motivation and academic adjustment of students?

(ii) In a set of variables of psychosocial factors, which variable has the most and which one has the least impact on creating a meaningful relationship between sign language interpreters' psychosocial factors, motivation and academic adjustment of students?

(iii) Between psychosocial variables of sign language interpreters, motivation and academic adjustment of students, which set of variables have high contribution and which set have a low contribution to the canonical variate?

Research hypothesis

There is no significant relationship between sign language interpreters' psychosocial variables, motivation and academic adjustment of students with hearing impairment.

This hypothesis was tested by using canonical correlation analysis. A

software package known as SPSS 26 was used to run the analysis. In addition, the research designtested the strength of relationships as well as the direction of relationships.

Methodology

The design adopted in carrying out this study was a correlation research design because it allows the researcher to investigate the magnitude of the relationship existing between the two sets of variables under studied (psychosocial factors and student motivation and academic adjustment). This study was conducted in the Department of the Special Education University of Calabar. The population of interest consist of all the undergraduate student in the department. To ensure representativeness, the sample was drawn from all levels of study using cluster sampling techniques. In each cluster, a simple random sampling technique was used to select respondents for the study. Finally, fifty (50) students were randomly selected for the study. The instrument for data collection was a 42 items questionnaire design by the researcher which captured all the sub-variables in both sets. (i.e. personality, social interaction skills, stress, self-concept, psychosocial factors and motivation/academic adjustment for the second set).This instrument was validated to ensure its content validity and was trial tested to ensure its reliability. The reliability coefficient determined with the use of Cronbach alpha reliability estimate ranges from .94 – 91 in each of the instrument sub-scales. The instrument was personally administered by the researcher to the respondent. Data collected were coded and analysed using canonical correlation statistical analysis at .05 level of significance.

Result

The hypothesis formulated in the study was subjected to testing using canonical correlation statistical analysis. The significant correlation was tested at .05 level of significance. The canonical table, as well as the redundancy index table, provided help to answer the research question and the whether to reject or accept the null hypothesis. The result of the analysis is presented in Table 1.

Table 1 Canonical analysis relating sign language interpreters' psychosocial variables with students' motivation and academic adjustment

		Function 1			Function 2			
Variables	**W**	**L**	**L^2**	**% ΣL^2**	**W**	**L**	**L^2**	**% ΣL^2**
Independent set								
Personality	.045	-.764	.583	.16	1.658	.390	.152	.97
Social interaction skills	-.233	-.980	.960	.27	-3.923	-.043	.001	.006
Stress	-.393	-.976	.963	.27	3.086	.004	.000	.000
Self-concept	-.428	-.987	.974	.27	3.086	.061	.003	.019
			3.48				.156	
Dependent Set								
Academic adjustment .75		-.242	-.954	.941	.49	-2.566	-.300	.079
Motivation	-.772	-.996	.982	.51	2.458	.094	.025	.24
			1.92				.104	
Correlation		.986				.264		
Eigenvalue		36.118				.075		
Wilks Statistic			.025				.930	
F		57.160				1.102		
Num. D.F		8.000				3.000		
Denom. D.F		86.000				44.000		
P-value.		.000				.358		

Proportion of Variance Explained

Canonical Variable	Set 1 by Self	Set 1 by Set 2	Set 2 by Self	Set 2 by Set 1
Function 1	.868	.844	.951	.925
Function 2	.039	.003	.049	.003

The p-value at function one as seen in table 1 is .000 which is less than .05. the result of the analysis is significant indicating that there a significant relationship between psychosocial variables of sign language interpreters, student's motivation and academic adjustment in the University of Calabar. Looking at function one, it can be noted that all the variables in both dependent and independent set have high loadings of -.764, -.980, -.976, -.987, -.954 and -.996 respectively for personality, social interaction skills, stress self-concept, academic adjustment and motivation variables. This implies that all the six variables use in

the study (in both dependent and the independent set) contributed relatively high amount to the shared variance expressed by the canonical root. The table further revealed that each of the variables are inversely related with each other.

To answer the last research question, redundancy index of the canonical correlation was calculated and presented in table 2

Table 2 Redundancy index for the canonical function

Canonical total function	Root	Variance extracted	Redundancy	Proportion to redundancy
		Independent Set		
	R^2	VED[1]	R^2 x VED	
1	.97	.87	.84	1
2	.06	.03	.00	.00
		.9	.84	1
		Dependent Set		
	R^2	VED[1]	R^2 x VED	
1	.97	.96	.93	1
2	.06	.04	.00	.00
		1	.93	1

The redundancy index as shown in table 2 indicate that 93 percent of the variance for the dependent variable has been explained by the canonical variants, while 84 percent for the independent variables have been explained by the canonical variants. This implies that both sets of variables contribute significantly to the canonical variants. However, student motivation and academic adjustment which were at the dependent set contributed more (93 percent) psychosocial variables (84 percent).

Discussion

This study was conducted to find out the relationship between sign languages interpreters' psychosocial characteristics, student motivation and academic adjustment. The result of the analysis as presented in Tables 1 and 2 shows that there is a significant relationship between sign language interpreters' psychosocial factors, students' motivation and academic adjustment. All the six variables used from the two sets of variables were seen as having a significant contribution to the positive relationship with canonical cross loading of .764, .980, .976, .987, .954 respectively. The redundancy index shows that motivation and academic adjustment contribute more to the shared variance than psychosocial

variables.

The finding of the present study was in line with the previous studies conducted by different scholars. For instance, Hamdan-Mansour, Hamaideh, Azzeghaiby, Hanouneh and Aboshaiqah (2015)study showed that university students in Jordan had a low moderate level of intrinsic motivation to academic accomplishment, and that intrinsic motivation to academic accomplishment had a positive association with perceived social support from family, life satisfaction, and optimism. None of the psychosocial factors was found to be significant predictors of intrinsic motivation to academic accomplishment, while age group and working status were significant ones. Moreover, there was a significant difference in intrinsic motivation to academic accomplishment with regards to age groups showing that 1st and 2nd year students had higher intrinsic motivation to academic accomplishment than their counterparts in higher academic levels.

Conversely, the findings of Sommer (2013) partially agreed to the finding of Hamdan-Mansour, Hamaideh, Azzeghaiby, Hanouneh and Aboshaiqah (2015. Sommer found out that there is a significant relationship between psychosocial constructs, adjustment and academic performance; and that the additional constructs of test-anxiety and self-efficacy increased the explained variance of an extended model to predict students' success at university; and identified some path differences between psychosocial constructs, adjustment and academic performance. These findings are completely in line with the present study.

In other studies, emotional intelligence, social support, self-esteem and coping strategies took together significantly predicted academic adjustment of first-year University undergraduates. Similarly,social variables and student math level were found as two models that can explain the relationships between students' motivation and academic adjustment variables and could affect student effort to learn mathematics (Manuabuchi and Obikoya, 2015; Wajeeh Daher, Fakher Al-Khalili, Yasmin Abu-Kayyas, 2017). Furthermore, Salami (2011) has identified the relationship between parental support, self-esteem, stress and adjustment among first-year college of education students in Ekiti State. Other previous research showed self-esteem, social support (Friedlander, Reid, Shupak, & Cribbie,) and emotional intelligence (Palmer, Walls, Burgess, & Stough, 2008) as better predictors of adjustment. Perceived stress has also been shown to predict low level of adjustment to college (Friedlander, et al., 2007). According to Fennie, Mayman, Louw, Useh and Kombora (2020), undergraduates' college students' adjustment are influenced by their overall University preparedness, their school-to-college transition support, their social interaction, their help- seeking capabilities, and their motivation levels. The researchers further recommended

that college student counselling and development services should seek to proactively address psychosocial factors that may detract from students' success.

Conclusion

This research has provided empirical evidence that a number of sign language interpreters psychosocial variables (personality, social interaction skills, stress and self-concept) impact on students' motivation and academic adjustment. Findings further revealed that all the sub-variables from the two set (psychosocial, motivation and adjustment) were important predictors contributed significantly to the total variance. Findings of the study further revealed that the dependent (motivation and academic adjustment) have the more contribution to canonical correlation while the independent variable (sign language interpreters psychosocial variable contributed less) to the canonical correlation. Findings of the present study extends the current literature and contributes to the understanding of how and to what extend psychosocial variables of sign language interpreters influence both deaf students' motivation and academic adjustment. The model in this study, explained a considerable amount of variance in the independent variables, similar to the variance explained by other studies with previous high school academic adjustment.

Recommendation

Based on the findings of this present study the recommendation set fourth is that: sign language interpretation programs or any other form of intervention made to assist the deaf students with hearing impairment;

1. Should provide them with skills that advance their abilities to cope with University demands to lessen stress, academic overload and test-anxiety,
2. Should be designed to assist students appreciate their own motivations for attending University,
3. Should be designed around increasing students' self-beliefs, self-confidence and autonomy.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

INSTITUTIONAL MENTORING AND SIGN LANGUAGE INTERPRETERS TASK PERFORMANCE IN UNIVERSITY OF CALABAR, CALABAR

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Abstract
This paper sought to evaluate the task performance of sign language interpreters by considering the effect of institutional mentoring on themat the University of Calabar. A descriptive survey research design was used in this study and the population comprised of all the sign language senior lecturers (mentors) and interpreters (mentee), all from the department of special education, faculty of educational foundations studies. The study was a census study. Data were collected through the use of a structured questionnaire design by the researcher. Simple linear regression and multiple linear regression analysis were used to test the hypotheses at .05 level of significance. The result of the analysis revealed a there is a positive influence of institutional mentoring on sign language interpreters' task performance in Calabar. It was also found that the mentor-mentee relationship has a higher influence on sign language interpreters' task performance atthe University of Calabar. Based on the findings and conclusion, it was recommended among others that sign language interpreters should collaborate with their mentors toward excellences for better life and quality education for persons with hearing loss.

Keywords: institutional mentoring, mentee, mentor, mentoring, task performance, sign language interpreters, sign language.

Introduction

Sign language interpretation in an educational setting is a crucial area of specialization that entails an exceptional set of skills and considerations beyond what is applicable in the community settings. An interpreter in this case must clearly understand both the spoken and writing language for effective interpretation to be achieved. In addition to the convolution nature of interpreting educational content, sign language interpreters have the responsibility of serving as adult role models for the students. The education of the deaf in the community or institution cannot function without the critical role of the sign language interpreters. Interpreter shave the sole responsibility of transmitting what is being taught by the lecture (mentor) to the students. For the interpreter to perform well

in this case, he/she must understand the subject matter. It is this understanding that will aid in the accurate translation of what is being taught by the lecturer.

Different scholars earlier noted that sign language interpreters in exercising their task should pursue quality in their work to ensure the inclusion of deaf students at the institution. As part of the multidisciplinary discipline, each interpreter must collaborate with the lecturer to guarantee access to educational resources by the deaf students so as to have a proper understanding of the whole curriculum especially, in a complex discipline such as science and other related fields. (Smith, 2008, Rum janek, Barrel, Schiaftinon Alemida and Pinto Silva 2012; Flores and Rumajaek 2013). Many Deaf children depend on educational interpreters for access to communication, curriculum, and social interactions in the school system (Brown & Schick, 2011; Schick, 2001)

The key responsibility of sign language interpreters is to fill a communication gap between lectures and the deaf/hard of hearing students. They provide communication access to students who are deaf or hard of hearing sincerely and accurately. Providing the basis for teacher/student dialogue and relevant sound information in the mode of communication used by the student. Using American sign language (ASL), interpreters' role is to ensure that students can fully and effectively access all-round information. The sign language interpreter should be able to convey spoken words to the understanding of students with hearing loss through sign language and vice versa. The task confronting sign language interpreters is enormous. They are charged to act in the best interest of the learner taking into consideration an individual student's language level, academic competency, social/emotional development, and interpersonal skills as well as the professional guidelines of the school or institution which he/she is employed (Schick n.d).These responsibilities confronting sign language interpreters are embedded with a lot of challenges.

The education of the deaf in an educational institution cannot function without the critical role of sign language interpreters. Sign language interpreters have the sole responsibility of transmitting what is taught in the classroom by the lecturer (mentor) to the students. An interpreter must understand the subject matter of the course for accurate translation to take place. This responsibility requires synergy between the lecturer and the sign language interpreters. Their willing collaboration can open up opportunities for the deaf students in higher institutions to grasp and understand the subject matter and also assist sign language interpreters in self-development.

Sign language interpreters though knowledgeable in their respective field of study requires support, attention and encouragement. This is because most of

them graduated from different academic fields of study. For instance, a deaf student in special education may have a graduate from micro-biology as they sign language interpreter. Such a gradate might have acquired sign language interpretation skills, hence is said to be qualified as a sign language interpreter. It is worthy of note that the coaching of departmental lecturers is required for sign language interpreters to understand the concepts, and teaching patterns of the department of special education, in other to actively translate effectively to students in the department.

Most times, societal perceptions about the deaf and hard of hearing are discouraging, and often than not, disconnect them from the hearing communities. In education settings, accurate counselling services are required in other to fully reintegrate them back into the system. To achieve this, the deaf and hard of hearing students see the sign language interpreters as the only available, most closely related individuals to approach. These interpreter needs emotional, psychological and educational support from senior lectures to assist them in caring for their responsibilities. On one hand, it is recognized by a lot of professionals that many interpreters do not have a good command of some of the issues that they have to interpret and this may create confusion in student understanding of the course content (Guarinello, Santana, Figueiredo & Massi, 2008).

Witter-Merithew and Johnson (2005) reported that as deaf people gain greater access to higher education, employment, and other aspects of social inclusion, the demand for qualified and competent sign language interpreters grows. Exception of the educational sector, Hauser, Finch, and Hauser (2008), named a few of sectors of which the services of sing sign language interpreters are urgent. This includes; deaf patients (hospital), lawyers, other academics level, and senior executives. Mathers and Witter-Merithew (2008) further pointed out that advanced competency is required by sign language interpreters in their related fields. This is more particularly when the deaf population are plagued with some form of educational, social, or linguistic deprivation.

There may be countless adverse consequences of having unqualified interpreters working in educational settings, especially at higher institution level. Studies have shown that sign language interpreters, whether qualified or not, "impact on the linguistic performance and academic success of school graduates" (Witter-Merithew, 2010, p.4). Another study reported that, when the deaf child is faced with interpreters who have insufficient American sign language (ASL) skills, language acquisition and skills development are compromised Janzen (2006, p. 230).Furthermore, a study conducted by Schick, Williams, and Kupermintz (2006)indicates that "many deaf and hard-of-hearing students

receive interpreting services that will seriously hinder reasonable access to the classroom curriculum and social interaction". Emphasising the importance of institutional training, Rid (2010) maintained that "If interpreters are not highly qualified, they cannot provide students with access to a free, appropriate public education" (p.1). Within the provision of their services, educational interpreters must consider child and language development, a range of communication modalities, and each student's strengths and weaknesses, as well as individualized educational goals (Patrie& Taylor, 2008; Registry of Interpreters for the Deaf, 2010; Schick, 2007). A study by Walker (2011) found out that Interpreter educators (mentors) do not adequately prepare interpreters mentees for interpreting in specialised settings. Interpreters were only prepared to work in a setting that demand the use of American sign language (ASL), but were not prepared to work in a situation whereby total communication and interactive language is required. The concern here is the factor of situational volatility. Sign language interpreters who are driven into interpreting in educational settings may later find themselves in circumstances that change quickly such as the legal field, medical field, and so on which they may feel unqualified. It is expected that sign language mentors should reiterate the concept of volatility such that graduates are aware of risks they might not have expected otherwise.

In a similar study, Foster and MacLeod (2004) focused on the role of mentoring relationships in the career development of successful deaf and hard of hearing persons. It also provides a comprehensive summary of the general roles and responsibilities of successful mentors and the characteristics of successful mentor-mentee relationships. For effective teaching and learning by the deaf and hard of hearing students to be achieved, institutional mentorship needs to assume a holistic approach. In this case, the mentor should strive for effective communication with a mentee. It is also critical for a mentor to understand deafness, sign language, and deaf culture as well as the implications that these attributes have on a deaf person's educational and career progress (Braun et al., 2017; Saur, 2001; Saur & Rasmussen, 2003). At the beginning of a mentor-mentee relationship, mentors are encouraged to learn about deaf culture and how it intersects with the cultural norms of hearing populations. Further, mentors and mentees are to collaborate to identify a mentee's particular strengths and where the mentee needs to improve.

Despite the enormous mandates required from sign language interpreters, they often perform their tasks with little guidance and set roles in working with the students for themselves (Langer, 2004; Public Policy Associates, 2006; Wolbers, Dimling, Lawson, and Golos2012). Educational interpreters in another study

indicated that having the ability to clearly articulate their own roles and responsibilities to classroom teachers on a regular basis was a contributor to interpreter effectiveness, and ultimately, student success (Langer, 2004).Based on this background the problem of this study is stated in a question formthus; how does sign language interpreters' task performance in the University of Calabar relate to institutional mentoring?

Purpose of the study

The main purpose of the study was to examine the relationship between institutional mentoring and sign language interpreters task performance in University of Calabar. While the specific purpose was to find out the level at which:

1. Mentor-mentee relationship relate with interpreters' task performance in University of Calabar
2. Exposure to Nigerian sign language relate with interpreters' task performance in University of Calabar
3. Counselling services relate with interpreters' task performance in University of Calabar.

Research questions

The following research questions guided the study.

1. To what extent does mentor-mentee relationship relate with sign language interpreters job performance in University of Calabar?
2. To what extent does exposure to Nigerian sign language relationship relate with sign language interpreters job performance in University of Calabar?
3. To what extent does counselling services relationship relate with sign language interpreters job performance in University of Calabar?

Research hypotheses

Three null hypotheses were formulated to guide the study, they are stated thus:

H_o1 the relations between mentor-mentee and sign language interpreters task performance in the university of Calabar is not significantly high.

H_o2 the relationship between exposure to Nigerian sign language and interpreters job performance in the university of Calabar is not significantly high.

Ho3 there is no significant high relationship between counselling services and sign language interpreters task performance.

H_o4 there is no significant relationship between institutional mentoring and sign language interpreters job performance.

Methodology

This study adopted a survey research design. The activities of institutional mentoring and that of sign language job performance were observed almost simultaneously, while questionnaire was use to elicit response from the mentee (sign language interpreters). This survey was a census study which allow all the sign language interpreters to be used in the study. The population of the study was seven (7) sign language interpreters in the Department of Special Education, University of Calabar. An instrument tagged 'institutional mentoring and sign language interpreters task performance questionnaire was used for data collection. The instrument was administered to the seven sing language interpreters in the depart. Sufficient time were allowed for them to respond to the instrument, and at the end, all the administered instrument was received. The researcher carefully, collate all the data for data analysis. Simple linear regression and multiple regression statistical analysis were used to test the three-hypotheses formulated to guide the study. All the hypotheses were subjected to testing at .05 level of significance.

Result

The result is presented on hypothesis basis using table.

Hypothesis one (H_o1): The relationship between mentor-mentee and sign language interpreters task performance in the university of Calabar is not significantly high. The result of the analysis is presented in Table 1

Table 1: Simple linear regression showing the level of relationship between mentor-mentee and interpreters task performance

Model Summary

Model	R	R^2	Adjusted R^2
1	.389[a]	.151	-.018

Anova

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	13.244	1	13.244	.893	.388[b]
	Residual	74.185	5	14.837		
	Total	87.429	6			

The ANOVA result shows that the. $F_{(1,5)} = .893$, $p = .388$ at .05 level of significant. the ANOVA table revealed that there is no significant relationship between mentee-mentor relationship and sign language interpreters task performance in

University of Calabar. The model summary table shows a low correlation coefficient of .38. Additionally, $R^2$of .15 indicate that it only 15% of the total variant in sign language interpreters task performance is explained by mentor-mentee relations, which is significantly low. Base on this analysis, the researcher can statistically conclude that the relationship between mentor-mentee and sign language interpreters task performance in the University of Calabar is significantly low, hence the null hypothesis was accepted.

Hypothesis Two (H_o2): The relationship between exposure to Nigerian sign language and interpreters job performance in the University of Calabar is not significantly high. This hypothesis was tested using simple regression statistical analysis, Table 2 present the result of the analysis.

Table 2: Simple linear regression showing the level of relationship between exposure toNigerian sign language and interpreters task performance

Model Summary

Model	R	R^2	Adjusted R^2
1	.203[a]	.041	-.151

Anova

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	3.601	1	3.601	.215	.663[b]
	Residual	83.828	5	16.766		
	Total	87.429	6			

The result of the analysis as presented in table 2 shows that the level of relationship between exposure to Nigeria sign language and interpreters task performance is not significantly high, hence the null hypothesis was retained. From the table, the correlation coefficient was .20 which was significantly low, furthermore, the contribution of sign language interpreters task performance (dependent variable) to exposure to Nigerian sing language (independent variable) was only 4.1% which was very low, hence the reason for retaining the null hypothesis. ANOVA table further revealed a no relationship between exposure to Nigerian sing language and interpreters job performance in the study areas, this is evident with the $F_{(1,5)}$ = .215 p-value of .66

Hypothesis Three (Ho3): There is no significant high relationship between counselling service services and sign language interpreters task performance. The result of the hypothesis tested is shown in Table 3

Table 3: Simple linear regression showing the level of relationship between counselling services and interpreters task performance.

Model Summary

Model	R	R^2	Adjusted R^2
1	.430[a]	.185	-.022

Anova

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	16.139	1	16.139	1.132	.336[b]
	Residual	71.289	5	14.258		
	Total	87.429	6			

Table 3 result shows the $F_{(2,53)}$ of 1.13with the p-values of .33 in the ANOVA table. Firstly, it can be observed that the p-values was not significant hence, it can be deduced that there is no significant relationship between counselling service and sign language interpreters job performance. The correlation value of .43 indicate a low correlation between the dependent and independent variables, while the R^2indicate that only18.5% of the variance in sign language interpreters task performance is explained by counselling services. The implication of this result is that there is no significant high relationship between counselling service services and sign language interpreters task performance.

Hypothesis Four (H_o4) there is no significant relationship between institutional mentoring and sign language interpreters job performance. This hypothesis seeks to ascertain the combine level of relationship between the independent variables and dependent variable. To ascertain this, multiple correlation statistical analysis was used, and the result of the analysis is presented in Table 4.

Tabel4: Multiple regression showing the level of relationship between institutional mentoring and interpreters task performance.

Model Summary

Model	R	R^2	Adjusted R^2
1	.389[a]	.151	-.018

ANOVA

Model		Sum of Squares	df	Mean Square	F	P-value
1	Regression	13.244	1	13.244	.893	.388[b]
	Residual	74.185	5	14.837		
	Total	87.429	6			

Regression Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	p-value
1 (Constant)	24.47	10.87	2.25		.11
Counselling Services	.88	1.145	1.59	.77	.49
Exposure to Nigeria Sign language	-1.21	1.129	-1.25	-1.08	.35
Mentor-Mentee Relationship	-.007	1.108	-.013	-.00	.99

Table 4 provides the correlation coefficient *R of* .38 and R^2.151 values, which indicates a low degree of correlation. The R^2 value indicates that a total variation 15.1 in the dependent variable (interpreters task performance),is being explained by the independent variable (institutional mentoring) which is significantly low. Base on this result, the researcher concluded that the relationship between institutional mentoring and sign language interpreters task performance is significantly low in the university of Calabar. The ANOVA Table further revealed that there is no significant relationship between institutional mentoring and sign language interpreters task performance on the study area. The decision is based the observed $F_{(1,5)}$ =.89 with the p-value of .388 which is not significant at .05 (p>.05).

Discussion

Findings from the first hypothesis tested revealed a low level of relationship between mentor-mentee relationship and sign language interpreters job performance in the study area. The finding of this study seems surprising due to the important to task performance. However, studies have shown that interpreters

can work anywhere and can find themselves working in a wide range of settings on any given day, due to this wide range of possible work sites, interpreters entering the field can find themselves in new situations that they have not experienced before and never learned about hence the negative relationship with their mentor (Demers, 2005). Another study revealed that as many graduates enter into the field of sign language interpreting, they spent time on self-learning in order to be effective. This set a limitation to the time spent with their mentor at the work place (Witter-Merithew& Johnson, 2005). Pearse & Napier, (2010) found out that most sign language interpreters lack workplace support therefore, they often feel dissatisfied to approach their mentors. In a study by Dean and Pollard (2001), most interpreters reported feeling "insufficiently prepared" or "not at all prepared" for many of the interpreting skills necessary in their work. There have been changes suggested within interpreter education and professional development requirements, including supervised professional training for students of interpreting (Dean & Pollard, 2001).

The second hypothesis tested revealed that the level of relationship between exposure to local sign language and interpreters task performance is not significantly high. This finding affirms that for an interpreter to use the local sign language, such an interpreter understands the ethics, and knowledge of the deaf culture and of sign language as well as performance in in the locality in order to really break the communication barriers. Alternatively, American sign language which is the most commonly used sign language is preferable. In line with this findings, Nascimento (1997) states that the translation of knowledge into practice is not an easy process, because it does not involves only a technical dimension, but implies a personal work building strategies for action (methods) or in a quest for relations with other events in order to be technical, economic, social or political. Studies further revealed that it is through the use of American sign langue (ASL) context that the young adult develops the different dimensions that constitute him/her by confronting other peers with different ideas, experiences, models and life roles, allowing a gradual integration in the professional context (Young & Friesen, 1990; Silva, 2008).According to Caires (2003) and Silva (2008), the practice of mixing between American sign langue and local sing language has an impact on students' self-image and their professional identity that is still being trained.

Still, on the issue of Exposure, this study was in line with the work of Emmerik, Gayle, Martin, (2005) the findings in their study that effective organizational commitment is unrelated to propensity to mentor, whereas career aspirations are positively related, and exposure through networking activities are negatively related to serving as a mentor, but not desiring to be a mentor.

The aim of the third hypothesis was to find out whether the relationship existing between counselling services and sign langue interpreters task performance is significantly high. The findings from the hypothesis tested revealed that the relationship is not significantly high, but low. The findings support the work of Costa (2017) who found out that team effort is needed for a sign language interpreter to be successful not one-on-one counselling. The author further finds out that counsellors are often unprepared to work in this way, there is need for a collaborative relationship between counsellor and interpreter, consideration of dynamics in a triangular relationship and a clear delineation of responsibilities.

The finding of this study was fully in support of the study conducted byMittal, Upamannyu, (2017) who found out that there is no significant relationship between mentoring, organizational commitment and performance. Similarly, Leidenfrost and Strassnig Barbara, Schütz Marlene, Carbon Claus-Christian, Schabmann Alfred (2014) in their study revealed that there is no impact of mentoring styles on mentee academic performance. In the other hand, the study of Inzer, Crawford (2005) revealed that for the success of Organization formal mentoring program must take the best of informal mentoring and institutionalize it. The result also indicated that Organizations need to capture some of the power of informal mentoring to create greater organizational success.

Conclusion

Based on data collected and statistical analysis, the researcher found out that institutional mentoring has negative relationship with sign language interpreters task performance and that most interpreters are not emotionally bonded to the mentor since they are concerned about the confidentiality of the relationship. Being time constrain, the interpreters find it difficult to communicate with their mentors regularly especially during working hours. Some mentee in the other way around, feels it as a burden as it increases the workload of a mentor. The value of the probability of the independent variables is seen to be generally statistically not significant. The study, however, concluded that the combined mentoring functions (mentor-mentee relationship, exposure to local sign language and counselling services) have no significant effect on interpreters' task performance.

Recommendations

Lecturers in the department of special education ensure that the sign language interpreters are allowed adequate measures to relate with and be exposed to relevant information especially while preparing for classes.

The role of counselling service can only be functional when the need of the interpreters is taking into consideration, hence, each counselling session should aim at solving interpreters need, not just for carrier purposes.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

THE ROLE OF SIGN LANGUAGE INTERPRETERS AS AGENTS FOR IMPROVING COMPETENCE IN SPECIAL NEEDS EDUCATION IN SECONDARY SCHOOLS IN THE CENTRAL EDUCATION ZONE OF CROSS RIVER STATE

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Abstract
This paper investigated the role of sign language interpreters as agents for improving competence in special needs education in secondary schools in the central Education Zone of Cross River State. Two research questions were raised and answered in the course of the investigation. The research design used was a survey, the population of this study was 56. The sample for this study was 34 comprising 23 special education teachers obtained from the State Secondary Education Board (SSEB) and 11 special education lecturers obtained from the Department of Special Education at the University of Calabar, Calabar. A simple random sampling technique was used in selecting 23 teachers and purposive sampling was used in selecting the 11 special education lecturers while mean and standard deviation were used to analyze the data. The result of the analysis showed that respondents agreed that the role of sign language includes: Interpreting/transliterating in a mode that reflects the student's language use outlined in the student's IEP, working with the classroom teacher to adapt classroom/school activities to promote participation, modeling social strategies to encourage interaction between students who use sign language and those who do not; ensuring incidental information is interpreted and providing plans for a substitute interpreter. Based on the result of the study, appropriate recommendations were made including that Policymakers should also remember about children with hearing impairment when making their educational policies. They should include Sign language interpretation in the method that should be used in teaching these children. They should also state in their policy that all teachers of children with a hearing impairment must know Sign language if they should teach them.

Keywords: *Special needs education, Sign language interpreters, Hearing impairments, competence.*

Introduction

Students who are deaf or hard of hearing often require classroom accommodations so they can understand and learn the material presented. Some individuals who are deaf or hard of hearing prefer communicating through sign language as opposed to writing, lip reading, or if the individual possesses residual

hearing, possibly using a device to amplify sounds. When sign language is the preferred form of communication, the services of a sign language interpreter may be arranged for the student as a reasonable and useful classroom accommodation to help the student learn and understand course content. Therefore, it is important for both students who are deaf or hard of hearing and instructors who teach these students to know how to utilize the services of an interpreter effectively.

A sign language interpreter is a trained professional who translates communication and conveys all auditory and signed information so that both hearing and deaf individuals may fully interact. The interpreter is bound by a code of ethics, which includes keeping all material interpreted strictly confidential. In addition, interpreters are to maintain the integrity of the message, always conveying the content and spirit of the speaker. The interpreter's mission is to facilitate communication; he/she should neither add nor delete any information at any time. Because of the specific nature of the interpreter's role, it is important not to ask the interpreter for his/her opinion or to perform any tasks other than interpreting (Thomas, 2022). It is also important to keep in mind that sometimes, depending on the length of the class, more than one interpreter will be present. Typically, any class over two hours requires the services of two interpreters who will take turns interpreting, usually at 20-minute intervals.

An educational interpreter for the deaf is a person who is skilled in many aspects of sign language. A signer has the basic sign language skills to express his/her thoughts: an interpreter, on the other hand, uses basic and advanced language plus interpreting skills to convey the thoughts of other people. This paper, therefore, focuses on the role of sign language interpreters as agents for improving competence in special needs education.

Statement of the Problem

Despite the key role played by sign language interpreters in the education of students with hearing impairments, most schools in the Central Education Zone of Cross River State lack the required manpower in this area. Students with hearing impairments are left unattended which makes them lost amid several lessons. The resultant effect of this occurrence is reflected in the poor academic performance of students with hearing impairment who are often backward in terms of academic performance.

In other cases, students with hearing impairments often drop out of school due to frustration of lack of interpretation without the students who do not get to understand anything that is happening in the classroom. On the other hand, the goals of special need education are not achieved when such students cannot cope

in regular or special schools. The statement of the problem, therefore, put the question: what is the role of sign language interpreters as agents for improving competence in special needs education in secondary schools in the Central Education Zone of Cross River State?

Purpose of the Study

The major purpose of this study is to investigate the role of sign language interpreters as agents for improving competence in special needs education in secondary schools in the Central Education Zone of Cross River State. Specifically, the study seeks to:

i. Examine the role of sign language interpreters in special needs education in secondary schools, special needs (e.g. cerebral palsy, ADHD). These additional assignments are appropriate only when they do not remove the interpreter from his/her primary responsibility, when the assignment does not conflict with the interpreter's ethical codes, and when the interpreter is qualified to serve in these exceptional roles. Sometimes interpreters find that they have idle time; assigned time is just as reasonable for educational interpreters as it is for other members of the school team. Important distinctions need to be made, however, between idle times that occur because of a student's absence (Ohba&Malenya, 2022). Serving as a student's instructor during seatwork is typically not appropriate, yet being available and vigilant for student questions during a test or seatwork is appropriate. Serving as a student's disciplinarian or parent liaison is also not appropriate, yet reassignment during a student's extended absence may be reasonable. Careful deliberation of these "other roles" is necessary for ensuring that the interpreter's primary role is not compromised (Janzen & Shaffer, 2002).

Zhu, Wang, Shi & Li, (2022) further explained that educational interpreters who are in high demand not only meet the state's regulations but also have coursework, certificates, or degrees in interpreting. They are skilled in the language and vocabulary of academics, in abstract thinking, and have a working knowledge of the developmental changes that occur in students. Seal (2004) opined that students who are deaf or hard of hearing deserve access to the same education that their hearing peers enjoy. Educational interpreters serve as the critical link to learning in a setting where spoken language predominates. Access to the social communication that occurs in educational settings is also important to all students, including those who may "hear" it through their interpreters. Enabling students who are deaf or hard of hearing the fullest possible participation in their educational experiences are not only a good practice, but is

also a right guaranteed by the Individuals with Disabilities Education Act (IDEA) of 1997 and the Americans with Disabilities Act (ADA) of 1990.

An educational interpreter for the deaf acts as a "communication link" most often between teachers and deaf or hard-of-hearing students. Just as a spoken language interpreter changes spoken Russian to English and vice versa, an educational interpreter changes English to American Sign Language (ASL) or vice versa. The foreign language interpreter is working with two SPOKEN languages. An educational interpreter is working with one SPOKEN language (English) and one VISUAL language (ASL).

Recruiting and retaining qualified interpreters can be difficult, particularly in rural areas where interpreters are scarce, and possibly in urban areas where community jobs are more available. Strategies to attract and retain interpreters include the following:

- valuing the educational and communication differences of students who benefit from interpreting services;
- treating interpreters as members of the educational community;
- learning interpreters' ethical codes and working with them to avoid conflicts;
- working with interpreters for schedules that reduce the physical stress that can lead to repetitive use injuries;
- including interpreters in the IEP meeting and instructional deliberations that, focus on communication;
- fostering good working relationships with teachers who may be naive to rapid oral reading rates, positioning and lighting issues, multiple speaker demands, and technical vocabulary demands;

ii. Determine the relationship between sign language interpretation and implementation of special needs education in secondary schools.

Research questions

The following research questions were posed to guide the study:

1. What is the role of sign language interpreters in the implementation of special needs education in secondary schools in the Central Education Zone of Cross River State?
2. What is the relationship between sign language interpretation and implementation of special needs education in secondary schools in the Central Education Zone of Cross River State?

The Role of Sign Language Interpreters as Agents for Improving Competence in Special Needs Education

Educational interpreters are professionals who play a critical role in facilitating communication between students with hearing loss and their teachers and peers. Educational interpreters have special knowledge, skills, and credentials that qualify them for these services (Riekeholf, 2003). The term interpreting is commonly used to represent a range of services:

Sign language interpreters improve communication by signing the spoken language of hearing persons and voicing the sign language of deaf or hard-of-hearing consumers. This voice-to-sign and sign-to-voice interpreting cross two languages, generally English and American Sign Language.

Sign language transliterators facilitate voice-to-sign and sign-to-voice communication while working within one language, generally spoken and signed English.

Cued speech transliterators add cues to the restated spoken message for deaf and hard-of-hearing persons and restate or voice the message of the deaf or hard-of-hearing persons who may cue when he or she talks.

Oral transliterators silently repeat what a hearing person says in a manner that enables the deaf or hard-of-hearing person to understand it; they also restate what the deaf or hard-of-hearing person says for hearing persons. The fundamental role of an educational interpreter is to facilitate communication between Deaf or Hard of Hearing students and hearing persons including, but not limited to: administrators, staff, teachers, service providers, parents, and peers within the educational environment (Heward & Wood, 2006).

According to Foster & Kinuthia, (2003) educational interpreters will achieve the goal of helping to create and maintain an inclusive environment by:

- Interpreting/transliterating in a mode that reflects the student's language use outlined in the student's IEP
- Working with the classroom teacher to adapt classroom/school activities to promote participation.
- Modeling social strategies to encourage interaction between students who use sign language and those who do not.
- Ensuring incidental information is interpreted.
- Providing plans for a substitute interpreter. Position them appropriately to assure visual access to educational content.

Antia & Kreimeyer (2001) posited that sometimes interpreters are asked to teach sign language, sponsor a sign language club, or act as instructional aides for students who have fostering the interpreter's professional development with support in services at the school and encouraging professional growth outside the school.

Sign Language Interpreting in the Classroom

Speak directly to the student - Because the interpreter is in the classroom to facilitate communication for both the student and instructor, the interpreter has to speak directly to and maintain communication with the student. The interpreter may request clarification from the teacher; and/or the Student to ensure the accuracy of the information conveyed.

Spell out technical words - helpful to have technical terms or jargon relating to a particular discipline or concept spelled or written out, either on the chalkboard, an overhead projector, on a class handout, or with some other visual aid.

Speak at a reasonable pace - Interpreters normally interpret with a time lag of one or two sentences after the speaker because interpreters must first process the information before relaying it. Speak naturally at a modest pace, keeping in mind that the interpreter must listen and understand a complete thought before signing it.

Use "I" and "You" References - The interpreter will relay your exact words. Use personal references such as "1" and "You" when communicating with individuals who are deaf or hard of hearing. Avoid speaking of the individual in the third person; phrases such as "ask her" or "tell him" can be confusing.

Encourage Communicating in Turn - It is important that only one person speaks or signs at a time. The interpreting process only allows one person to communicate at a time. Therefore, encourage students to wait before speaking or signing until you recognize them.

Allow ample time for reading - The student cannot read and watch the interpreter at the same time. Avoid talking while students are focused on written work or overhead projections/multimedia presentations.

Recognize the need for a note taker - It is difficult to take good notes while lip' reading or watching a sign language interpreter. Therefore, a note taker to assist the student who is deaf or hard of hearing may be both a helpful and reasonable accommodation in these instances. Allow **Ample time for questions -** During class discussions or question-answer periods, allow the student to raise his/her hand, be recognized, and ask questions through the interpreter. Making time for questions allows the interpreter to finish interpreting for the current speaker and enables the student who is deaf or hard of hearing to participate in class.

Repeat or paraphrase questions and responses - When questions are asked, be sure to repeat paraphrased, questions before a response is given. Likewise, responses should also be repeated or paraphrased.

Incorporate strategic lecture breaks - Plan periodic breaks so that both student and interpreter can get a rest from the rigors of interpreting. For the student, receiving information visually without breaks can be tiring and cause eye fatigue. For the interpreter, relaying information to the student while simultaneously processing new information from the speaker can create mental and physical strain. For classes longer than 50 minutes in which only one interpreter is available, a 5-10-minute mid-class break is essential.

Methodology

The research design adopted for the study was a survey design. The survey research design is chosen because it can be used to generalize from a small sample (Isangedighi, Joshua, Asim & Ekuri, 2004).The population of this study comprises 45 special education teachers obtained from the State Secondary Education Board (SSEB) and 11 special education lecturers obtained from the Department of Special Education at the University of Calabar, Calabar making a total of 56. The sample for this study was 23 special, education teachers drawn from among special education teachers in secondary schools in the study area using a simple random sampling technique and 11 special education lecturers purposively selected from Special Education Department. University of Calabar, Calabar. All the lecturers were used, making a total sample of 34.

The instrument for data collection was a structured questionnaire called the role of Sign Language Interpreters as Agents for Improving Competence in Special Needs Education Questionnaire (SLIAFICSNEQ). The questionnaire was made up of two sections, A and B. Section A consist of personal data of the respondents while section B deals with the items of information based on the variables to be

studied and is concerned with a 4-point required scale which includes; Strongly Agree (SA), Agree (A), Disagree (D), to Strongly Disagree (SD).

In terms of validity, the instrument was given to three Special Education lecturers and two experts in measurement and evaluation in the faculty of education who vetted the items developed and affirmed with 96 percent that the instrument was valid. The reliability estimate of the instrument was established through the test-retest reliability method and the index was found to be 0.76 which was high enough to be used. The data collected was analyzed using mean and standard deviation to answer the research questions. For the research question, a cut-off point of 2.50 on a four-point scale was used. Thus, any item with a mean score greater than 2.50 was taken as required otherwise not required.

Results

The analysis of data in this study was based on the research questions stated earlier in this study.

Research Question 1

What is the role of sign language interpreters in the implementation of special needs education in secondary schools in the Central Education Zone of Cross River State?

Table 1: Mean ratings of respondents on the role of sign language interpreters in the implementation of special needs education in secondary schools.

S/NO	Items statement	$\bar{X}$	SD	Remarks
1.	Interpreting/transliterating in a mode that reflects the student's language use outlined in the student's IEP	3.57	.62	Agreed
2.	Working with the classroom teacher to adapt Classroom/ school activities to promote Participation	3.39	.73	Agreed
3.	Modeling social strategies to encourage interaction between students who use sign language and those who do not	3.48	.82	Agreed
4.	Ensuring incidental information is interpreted	3.85	.60	Agreed
5.	Providing plans for a substitute interpreter	2.98	.55	Agreed

Key: V= Mean, SD= Standard Deviation

Data in Table 1 shows the mean ratings of special education teachers and lecturers on the role of sign language interpreters in the implementation of special

needs education in secondary schools. The data indicated that all the items recorded mean scores ranging from 2.98 to 3.57which were above the cut-off point of 2.50 on a four-point scale. This result implies that respondents agreed that the role of includes; Interpreting/transliterating in a mode that reflects the students' language use outlined in the student's IEP, working with the classroom teacher to adapt classroom/school activities to promote participation, modeling social strategies to encourage interaction between students who use sign language and those who do not: ensuring incidental information is interpreted and providing plans for a substitute interpreter. Data on standard deviation ranged from 0.55 to 0.82 which indicated that respondents were not too far from each other and the mean in their responses.

Research Question 2: What is the relationship between sign language interpretation and implementation of special needs education in secondary schools in the Central Education Zone of Cross River State?

Table 2: Analysis of the relationship between sign language interpretation and implementation of special needs education in secondary schools. (N - 34)

Variable	N	ΣX^2 ΣY^2	ΣXY	r-cal	r-value
Sign language interpretation (X)	34	801 11982	14021	0.73	0.195
Implementation of special needs in secondary schools (Y)	34	1019 13241			

P₦0.05, Critical value = 0.195, df = 32

The result above shows that at 32 degrees of freedom, the calculated R-values of 0.73 is greater than the critical value of 0.195. This implies that there is a significant relationship between sign language interpretation and the implementation of special needs education in secondary schools. This means that sign language interpretation can affect the implementation of special needs education.

Discussion

The result of the research questions is in agreement with Powers (2003) who posited that educational interpreters will achieve the goal of helping to create and maintain an inclusive environment by:

- Interpreting/transliterating in a mode that reflects the student's language use outlined in the student's IEP
- Working with the classroom teacher to adapt classroom school activities to promote participation.
- Modeling social strategies to encourage interaction between students who use sign language and those who do not.
- Ensuring incidental information is interpreted.
- Providing plans for a substitute interpreter.
- Position them appropriately to assure visual access to educational content.

Seal (2004) opined that students who are deaf or hard of- hearing deserve access to the same education that their hearing peers enjoy. Educational interpreters serve as the critical link to learning in a setting where spoken language predominates. Access to the social communication that occurs in educational settings is also important to all students, including those who may "hear" it through their interpreters. Enabling students who are deaf or hard of hearing the fullest possible participation in their educational experiences are not only a good practice, but is also a right guaranteed by the Individuals with Disabilities Education Act (IDEA) of 1997 and the Americans with Disabilities Act (ADA) of 1990.

Conclusion

Educational interpreters are professionals who play a critical role in facilitating communication between students with hearing loss and their teachers and peers. Educational interpreters have special knowledge, skills, and credentials that qualify them for these services. The fundamental role of an educational interpreter is to facilitate communication between Deaf or Hard of hearing students and hearing persons including, but not limited to: administrators, staff, teachers, service providers, parents, and peers within the educational environment and this makes their role critical in the implementation of special needs education for students with hearing impairments.

Recommendations

Based on the Headings of this study, the following recommendations were made:

1. Policymakers should also remember children with hearing impairment when making their educational policies. They should include Sign language interpretation in the method that should be used in teaching these children.
2. They should also state in their policy that all teachers of children with a hearing impairment must know Sign language if they should teach them.
3. Educational institutions, professional bodies, or associations in special education and the government should organize an enlightenment campaign and sensitization workshop on the importance of using Sign language interpreters in the teaching of children with hearing impairment and also the need to send these children to schools where they will learn effectively.
4. The curriculum planners should also modify the curriculum to build in the learning of Sign language in all schools from primary to higher institutions.
5. Children with hearing impairment should be exposed to the use of Sign language whether male or female. When they acquire this knowledge it will help them to develop their potential and also make them participate effectively in their family and the larger society.

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The Sign Language Interpreter
Journal of Association of Sign Language Interpreters of Nigeria (ASLIN)
Volume 1, Number 1, 2022 ISSN: 2992-4944

CHALLENGES OF IMPLEMENTING INCLUSIVE EDUCATION PROGRAMME FOR STUDENTS WITH HEARING LOSS IN SECONDARY SCHOOLS IN CENTRAL SENATORIAL DISTRICT OF CROSS RIVER STATE

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Abstract
This study investigated the challenges of implementing inclusive education programme for students with hearing loss in Central Senatorial District of Cross River State. Survey research design was adopted. Three research null hypotheses were formulated to guide the study and tested at .05 level of significance. A 30 items questionnaire was used for data collection. A sample size of forty one (41) respondents was selected for the study. Data collected was analysed using Pearson Product Moment Correlation to test the hypotheses. The findings revealed that, there is a significant relationship between poor funding, absence of functional supportive legislation, inadequate personnel, and implementation of inclusive education programme for students with hearing loss in secondary schools in the area under study. Based on the findings of the study, it was recommended among others that, Government should be actively involved the course of the implementation of the inclusive education package for students with hearing loss by making sure that at least 20% budgetary allocation to Ministry of Education should be devoted to taking care of Special Needs Education in the state and beyond. It was also concluded that implementation of inclusive education programme in Nigeria is still faced with different challenges bedeviling the implementation saga.

Keywords: Inclusive education, funding, supportive legislation and inadequate personnel.

Background to the study

The advocacy for better placement alternative for children with special needs has continued to generate a lot of argument in the field of special education and beyond. According to Ajuwon (2008) every inclusive education environment is supposed to be therapeutic, welcoming and learner friendly to all category of students' disability status notwithstanding. This is because in this type of

educational environment, no learner is seen as a failure. Hence every child's educational needs are adequately attended to.

The inclusion of all learners with/without special needs in the same classroom setting entails modifications where adaptation may be necessary. However, this is aimed at reducing discrimination, prejudice and discordance, negative attitudes among others leading to enhancement of social integration in and outside the school setting.

Generally, inclusion of all learners in to the regular classroom setting has been adjudged as the best placement alternative for learning, hence it promotes the qualitative worth of the learners and equity of access to education, which helps in reducing stigmatization and breaking of barriers that often manifest in the larger society against the special education needs (SEN) individuals (Obani 2006). This further prompted the questions such as; does real homogeneity as promoted by advocates for inclusion really exist? Are there barriers that forestall the worth wellness of inclusion? Or is this considered the best alternative for the children/students with hearing loss. The ideals of inclusion through holistic approach is poised to resolve the problems of the larger society characterized by multifarious barriers spanning from discrimination against the special needs students in terms of inadequacy of resources, lack of support services, poor infrastructural facilities, and inadequate personnel training programmes which hitherto limit proper functioning of the special needs students in general and those with hearing loss in particular.

However, the challenges faced by students with hearing loss in the traditional classroom setting are so enormous that these categories of learners have significant limitations in their academic performances as compared to their unimpaired counterparts (Offiong 2018). This is backed up by Ojile (2006) who posited that hearing loss reduces the level of accessibility to classroom instruction especially where the case in question is congenital in nature. The level of accessibility to classroom instructions depends on the degree of hearing loss, the milder the hearing loss, the more accessible to classroom instructions or visa viz. However, the difficulties caused as a result of hearing loss in a regular classroom may be submerged with the advent of inclusive education practices which gives hope to the provision of adequate facilities, infrastructures, personnel and care for all learners irrespective of ability or disability status. Since the implementation of inclusive education holds greater promises for students with hearing loss in the state, this has becomes a thing of major concern to stakeholders in education sector in Cross River State Central Senatorial District in particular and the state in general.

Ewa (2013) pointed out that it is of great importance to note that the regular education teachers have difficulties in communicating with students with hearing loss in the class during teaching or any other social interaction setting. This alone poses a lot of challenges to the learners in the inclusive education setting, as such prevents effective integration of these learners in the inclusive setting; hence they are often not beneficiaries of the general instruction and teaching. This is against the UNESCO (2004) suggestions that inclusive school must recognize and respond to the diverse needs of their students, accommodating both different styles and rate of learning and ensuring quality education for all, through appropriate curricular, organizational arrangements, teaching strategies, resources used and partnership with the communities(The Salamanca framework for action 2004).

Inclusive education is belatedly known in the field of special education, it is stably a term that conjures many perceptual connotations. Inclusion is not mainstreaming nor is it integration but rather is an approach that is higher than the two. (Agba, Olayi & Ewa, 2010) and Obi (2013), remarked that inclusion entails that every child with disability no matter the severity of the disability should be sent to the regular school.

It is against this backdrop that the researchers sought to investigate the extent to which Poor funding, absent of functional legislation, inadequate personnel and lack of supportive services constitute challenges bedeviling the smooth implementation of inclusive education programme for students with hearing loss in the area under study.

Poor funding of inclusive education and implementation of inclusive education programme for students with hearing loss. Funding in the general perspective is to provide resources, usually in form of money or to the values such as efforts or time for a project, a person's business or any other private or public institution. According to Business Dictionary funding refers to providing financial resources to finance a program or project. This indispensable role of funding in the inclusive education programme for persons with hearing loss cannot be overemphasized. Hence funding determines the level of personnel services, the educational environment, recruitment, staffing policies and procurement of instructional materials.

Connor (2002) acknowledged the importance of funding in inclusive education hence it bridged the gap between the deaf and other children, improves the level of communication, provides facilities and equipment/aids among others. He observed that lack of funding would tantamount to non implementation of inclusive education programme. It is evident from this explanation that any system that is properly funded will achieve meaningful progress and attainment

of the goals for effective inclusive education programme.

Sherlock and Peterson (2002) submitted that inclusive education programme is a veritable tool for equality and channels for removing the inter-personal barriers of discrimination in the larger society. Predicted on this fact, inclusive education supposedly requires a large percentage of funding in order to ensure effective implementation of programmes, the welfare of staff and structural adaptation of the learning environment.

Recent researches on the funding of special needs education programme points to inadequate funding as the major challenge of implementing meaningful programmes for the deaf and other special needs learners (Maduagwu, 2008). As adjudged by Eleweke (2008), government has the responsibility for the education of the deaf and other special needs learners by providing an enabling environment and therapeutic educational programme. On the contrary, reliable data on governmental monetary allocation for the implementation of educational programmes for all learners generally at the federal, state and local government levels are scanty, Hinch-Cliffe, (2002).

Ofre (2015) reports that Nigeria is one of the countries that have not given adequate attention to the educational sector, due to poor funding of educational programmes from the national budget with less than 10% annual budget being assigned to education. Consequent upon this, the administrative structure of special education in the country is generally poor. There is no special arrangement for the implementation of inclusive programmes in the country.

Furthermore, the idea of inclusive education for deaf children remains unattainable in the country when there is poor funding hence evidence points to the fact that the little amount of fund from the government for the implementation of educational programmes is not judiciously utilized, resulting to collectively poor remuneration of personnel that oversee education of deaf children.

Onwugbu (2008) posited that the misappropriation of funds in the educational sector presupposed that the meager amount provided by the government in Nigeria to finance educational services for students with special needs might either be deviated to other programmes by the state government or misappropriated by civil servants or contractors.

Absence of supporting functional legislation and implementation of inclusive Education programme for students with hearing loss. Legislation is an instrument used in modern society, to protect the interests and rights of citizens. Legislation is concerned with the law or justice and a decree being passed by the authority or parliament to safeguard the education and the interest of the special needs of persons (Amwe, 1994).

Legislation can circulate and reinforce a country's policy on special education; it can be used to secure resources or appropriate channeling of resources, and can be used to target expenditure on special needs children. Effective legislation promotes equality and prevents persons with disabilities from discrimination and dehumanizing attitudes from the public. Any country without good legislative structures/laws is bound to fail hence this guide against anarchy in every society.

These guidelines are obvious from the universal Human right Declaration (1948), Salamanca statement and framework for Action (2004), individuals with disabilities Act (2004), Nigerians with disabilities Decree (1993) which takes care of persons with deafness and other special needs learners, demands for special provision educationally, politically and in terms of employment. Although the Federal Government of Nigeria has been able to sign the Disability Bill into law of late, but has not been able to pen any Nigerian down, hence all the statues of the statements contain in the law and efforts to better the lots of the students with hearing loss are hugely halted by different states government due to the absence of obligatory legislations to give support to the already existing laws, and provide equitable playgrounds for person with disabilities.

Ewa (2013) noted that; available evidence shows that the policies as contained in the national policy on Education (NPE, 2004) as regarding the provision of essential services for the deaf and other special needs individuals however remained theoretical.

A study conducted by Ayadu and Jude (2006) submitted that there is no single legislation in Nigeria for persons with disabilities (PWDS). Accordingly, that is the reason why the inclusive education programme for deaf remains backward in the country. They further advocated for the urgent need for the passage of some Bills into law by the senate. Similarly, Iheanacho (1988) contended that without a supporting legislation, the implementation of the provisions in the NPE document is not mandatory or even obligatory on the Nigerian government. Consequently, there is constant relegation and disrespect of the existing polities due to the absence of laws to enforce the radical application of this blueprint.

Inadequate personnel and implementation of inclusive education programme for students with hearing loss. Personnel, from Okwukia (2007) standpoint, refers to the various professionals that contribute significantly to support and ensure that special needs students achieve their goals in the social, educational, religious, political and cultural circle. Personnel that are indispensable in special education includes; medical doctors, educational and neuropsychologists, speech and language clinicians, sign language interpreters,

brail lists, special educators, guidance counselors and many others not mentioned.

Inclusion of children with hearing loss into the regular classroom cannot be singly carried out by either the special educators or regular teachers alone. Hence the emerging efforts of audiologists, psychologist speech and language pathologists, and communication support workers working cooperatively to enhance the quality of educational services delivery constantly to special needs children. However, the inadequacy of these personnel has always been the challenge bedeviling the inclusion of deaf and hard of hearing learners into the main stream schools in Nigeria (Akpan-Udoh 2010).

Onwuegbu (2008) asserts that it is strongly believed that adequate personnel recruitment and preparation offers considerable hope for the attainment of inclusive education goals and inadequate staffing policies have a resultant negative effect on inclusive education. A study conducted by Okeke-Oti (2009), confirmed that the government over the years have wittingly concentrated on formulating blueprints on special education but has failed to improve staff policies (especially personnel recruitment). Experts have suggested that attention should be shifted to making personnel services adequate for special needs students.

Methodology

The study was carried out in Central Senatorial District of Cross River State. The study adopted survey research design. The population of the study comprised of 41 students with hearing loss drawn from the three Inclusive Secondary Schools in the area under study. The sampling technique employed by the researchers was census as the 41 sample for the study consisted of all the students with hearing loss in the population. All research hypotheses used for the study were analyzed at .05 level of significance. The instrument for data collection was 30 items Liket-like **scale** questionnaire constructed by the researchers named Challenge of implementing inclusive Education Programme for Students with Hearing loss in Secondary Schools in Central Senatorial District of Cross River State (CIIEPSHLISSCSDOCRS) was used. The response options **were** Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The reliability of **the** instrument was determined using 10 respondents who were not part of the studying sample, by employing Cronbach Alpha test method to analyze the scores and the correlation coefficient of.70 was obtained. The data was analyzed using Pearson Product Moment Correlation analyses respectively.

Presentation of Results:

Each hypothesis is re-stated, and the result of data analysis carried out to test it is presented below.

Hypothesis one: There is no significant relationship between poor funding and the implementation of inclusive education programme for students with hearing loss..

Table 2: **Pearson Product Moment Correlation Analysis on the relationship between poor funding and the implementation of inclusive education programme for student with hearing impairment**

Variable	N	ΣX ΣY	ΣX^2 ΣY^2	ΣXY	r-val.
Poor funding	41	205	450	340	0.90
Implementation of Inclusive education programme	41	180	300		

P <0.05, Critical value = 0.89, df = 39

The result in table 2 revealed that (r=0.90, p<.05). This implies that the null hypothesis which states that there is no significant relationship between poor funding and the implementation of inclusive education programme for students with hearing loss was rejected. The result indicated that there is a significant relationship between poor funding and the implementation of inclusive education programme for students with hearing loss in secondary schools in Central Senatorial District. The implication of this result shows that poor funding by government to educational sector cannot enhance the implementation of inclusive education programme for students with hearing loss.

Hypothesis Two: There is no significant relationship between absence of supporting legislation and implementations of inclusive education programme for students with hearing loss.

Table 3: Pearson product moment correlation analysis on the relationship between absence of supporting legislation and implementation of inclusive education programme for students with hearing loss.

Variable	N	ΣX ΣY	ΣX² ΣY²	ΣXY	r-val.
Absence of supporting legislation	41	200	422	390	0.92
Implementation of Inclusive education programme	41	180	300		

P < 0.05, Critical value = 0.89, df = 39

The result in table 3 revealed that (r=0.89, p<.05). This implies that the null hypothesis which states that there is no significant relationship between absence of supporting legislation and implementations of inclusive education programme for students with hearing loss in secondary schools in Central Senatorial District was rejected. The result indicated that there is a significant relationship between absence of supporting legislation and implementations of inclusive education programme for students with hearing loss in secondary schools in Central Senatorial District of Cross River State. The result of this hypothesis shows that the inability of government or relevant authorities to provide supporting legislation to back the principles of inclusive education will hamper its implementation for the benefit of students with hearing loss.

Hypothesis Three: There is no significant relationship between inadequate personnel and the implementation of inclusive education programme for students with hearing loss.

Table 4: Pearson product moment correlation coefficient analysis of the relationship between inadequate personnel and the implementation of inclusive education programme for students with hearing loss.

Variable	N	ΣX ΣY	ΣX² ΣY²	ΣXY	r-val.
Inadequate personnel	41	210	540	360	0.97
Implementation of Inclusi ve education programme	41	180	300		

P < 0.05, Critical value = 0.89, df = 39

The result in table 4 revealed that (r=0.97, p<.05). This implies that the null hypothesis which states that there is no significant relationship between inadequate personnel and the implementation of inclusive education programme for students with hearing loss in secondary schools in Cross River State Central Senatorial District was rejected. The result indicated that there is a significant relationship between inadequate personnel and the implementation of inclusive education programme for students with hearing loss in secondary schools in the area under study. This study shows that inadequate personnel reduce the required man power and professional skills needed for the implementation of inclusive education for students with hearing loss.

The Discussion of Findings of the Study

Hypothesis One. The result of this hypothesis revealed that there is a significant relationship between poor funding and the implementation of inclusive education programme for student with hearing loss in secondary schools in Central Senatorial District of Cross River State. In line with this finding, Connor (2002) posited that lack of funding would tantamount to non implementation of inclusive education programme. It is evident from this explanation that any system that is properly funded will achieve meaningful progress as well as attainment of the goals for effective inclusive education programme. It is based on this that Sherlock and Peterson (2002) advised that inclusive education programme is a veritable tool for equality and channels for removing the interpersonal barriers of discrimination in the larger society and suggested that inclusive education supposedly required a large percentage of funding in order to ensure effective implementation of programmes, the welfare of staff and structural adaptation of the learning environment.

Eleweke (2008), also warn that government has responsibility for the education of the deaf and other special needs learners by providing an enabling environment and therapeutic educational programme. On the contrary, reliable data on governmental monetary allocation for the implementation of educational programmes for all learners generally at the federal, state and local government levels are scanty.

Hypothesis Two. The findings of this hypothesis revealed that there is a significant relationship between absence of supporting legislation and implementations of inclusive education programme for students with hearing loss in secondary schools in the Central Senatorial District of Cross River State. The finding of this hypothesis is supported by Amwe (1994) who submitted that there

is no single legislation in Nigeria for persons with disabilities (PWDS). According to the author, that is the reason why the inclusive education programme for deaf remains backward in the country. He further advocated for the urgent need for the passage of some Bills into law by the senate. Similarly Iheanacho (1988), also contend that without a supporting legislation, the implementation of the provisions in the NPE document is not mandatory or even obligatory on the Nigerian government. Consequently, there is frequent relegation and disrespect of the existing policies due to the absence of laws to enforce the radical application of the inclusive education blueprint.

Hypothesis three. The findings of this hypothesis revealed that there is a significant relationship between inadequate personnel and the implementation of inclusive education programme for students with hearing loss in secondary schools in Central Senatorial District of Cross River State. The finding of this hypothesis is supported by Akpan-Udoh (2010) who asserts that adequate personnel recruitment and preparation offers considerable hope for the attainment of inclusive education goals and inadequate staffing policies have a resultant negative effect on inclusive education. A study conducted by Okeke-Oti (2009), confirmed that the government over the years have wittingly concentrated on formulating blueprints on special education but has failed to improve staff policies (especially personnel recruitment). Experts have suggested that attention should be shifted to making personnel services adequate for special needs students.

Conclusion

The philosophy of inclusive education of persons with hearing loss will attain meaningful and successful height when certain prerequisites are considered and put in place. Such factors include provision of adequate personnel services, adequate funding, presence of functional legislative support system, and full support service from the government both at the federal, state and local government levels. When these factors are catered for, the students with hearing loss will perform optimally, competitively and successfully in an inclusive education environment and beyond.

Recommendations

From the findings, the following recommendations were made;

1. There should be adequate and appropriate recruitment of personnels to oversee the full implementation of the inclusive education programme to

effectively accommodate students with hearing loss in the regular school system.

2. Government should be actively involved in the implementation of the inclusive education package for this category of students by budgeting at least20% of educational budget for special needs programmes.
3. There should be voluntary involvement of the private sector in the development of inclusive education in Nigeria.
4. Parents of students with hearing loss should collaborate in order to source for personnel and campaigning for appropriate legislations to support effective implementation of the inclusive education programmes for their children.

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Vanguard Newspaper (2018) Tuesday 11 April, 2018 publication