

ASSISTIVE TECHNOLOGY, SELF-ESTEEM AND HOME FACTORS AS PREDICTORS OF SOCIAL ADJUSTMENT OF STUDENTS WITH VISUAL IMPAIRMENT IN LAGOS STATE, NIGERIA

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Abstract

It has been observed that students with visual impairment often have wrong adjustment which has been affecting their wholesome personality and in particular, social adjustment. Previous studies have not adequately addressed their social adjustment. This study, therefore examined assistive technology, self-esteem and home factors as predictors of social adjustment among students with visual impairment in Lagos state, Nigeria. The study adopted survey research design of ex-post facto type. Purposive sampling technique was used to select one hundred (100) students with visual impairment. The selected students were drawn from two mainstream secondary schools and two rehabilitation centers in Lagos state, Nigeria. A structured questionnaire consisting of standardized scale such as Assistive Technology Usage scale, self-esteem scale, home factors and social adjustment scale were used to gather data in this study. Data collected were analysed using frequency, percentage and multiple regression statistical tools, and tested at 0.05 level of significance. The result revealed that assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) had significant joint influence on social adjustment of students with visual impairment in Lagos state, Nigeria ($F(5,94) = 10.992; p < 0.05$). Also, the result indicated that assistive technology usage and self-esteem had significant independent contribution to social adjustment of students with visual impairment ($\beta = 0.580; t = 5.895; p < 0.05$. $p = -0.556; t = 6.193; p < 0.05$) while family background, parent's socio-economic status and parent educational background had no significant independent contribution to social adjustment among students with visual impairment in Lagos state, Nigeria. Assistive technology usage, self-esteem and home factors positively and jointly predicted social adjustment of students with visual impairment. Therefore parents, social workers, rehabilitation officers and government workers working with students with visual impairment should take cognisance of the impact of assistive technology usage, self-esteem and home factors in order to enhance the social adjustment of students with visual impairment.

Key words: Assistive Technology, self-esteem, home, social adjustment, visual impairment

Introduction

Issues of depression, suicidal ideation, sense of deprivation, perceived incapacitation, poor quality of life, loneliness, hopelessness and other psychopathologies among persons with visual impairment, which could be as a result of fruitless effort made by persons with visual impairment to cope with standards, values and needs of a society, in order to be accepted technically referred to as social adjustment, attracted the attention of this study. Social adjustment refers to the process in which an individual strives to satisfy his personal needs as well as deal with the demands and constraints that are placed on 'him by his environment. Socialization is considered as the process of entering a person into a social environment assimilation of social life experience, culture and social relationships (Andreeva, 2009). One of the mechanisms of its implementation is a personal and social adjustment. Bgazhnokova, (2010) sees adjustment is a behavioural process by which a person maintains balance among various needs that one encounters at a given point in

time. Each and every situation of life demands that the students with visual impairment concerned should be able to effectively perform in accordance with some guiding principles and should be able to strike a balance among various forces. Adjustment is defined as a process wherein one builds variations in the behaviour to achieve harmony with oneself, others or the environment with an aim to maintain the state of equilibrium between the individual and the environment. In general, Social adjustment may be seen as the ability of the individual to harmonize his 'mental and behavioural patterns in order to achieve his personal needs and that of the society in which he lives. Specifically, social adjustment refers to the way in which an individual attempts to adapt to the physical and social environment. If this is not achieved, maladjustment becomes the result. Adjustment is a lifelong process and it is a necessity for both disabled and nondisabled persons.

In Nigeria and some part of the world, persons with visual impairment find it difficult to easily adjust socially because of the various problems that they face such as problems in orientation & mobility: Blindness imposes restriction on the ability to move about and have control over self and the environment in relation to it. Thus the inability in going out alone makes persons with visual impairment feel lonely and isolated. As a result, psychologically develops a feeling of great fear while going out alone. Problems in social contact: Sighted people are often embarrassed when they first meet a person with visual impairment because they are confronted with the question of whether or not to shake hands with the person as he is unable to see his extended hand. People with visual impairment are thus, aware of the embarrassment and clumsiness which their presence inspires in sighted people (Sudhir, Ashok and Bhavna, 2008). Deliberate attempts by sighted people to delete all references to vision from their conversation and show over sympathetic attitude towards people with visual impairment, may further deteriorate the situation which might lead to persons with visual impairment avoiding much social contact, and result in a feeling of isolation from society (Sudhir, Ashok and Bhavna, 2008). Problems in conversation: Facial expressions and body attitudes often give important cues to sighted indicating sarcasm, worry, humor and other emotions. Persons with visual impairment lose the perception of these subtleties and fail to develop the ability to use them in their speech. As a result of this, certain blandness in speech develops. They also fail to sense the visual cues which tell whose turn it is to speak. Because of this, the conversation may be marked with unintentional interruptions or embarrassingly long pauses. However, many studies have been conducted to proffer lasting solutions to the social adjustment challenges facing persons with visual impairment but none has examined assistive technology, self-esteem and the home factors as predictors of social adjustment of persons with visual impairment.

Technology has great potential in providing access for people with disability, and the ability to access the general social amenities. Assistive technology is a generic term that includes assistive, adaptive, and rehabilitative devices for individuals with disabilities and includes 'virtually anything that might be used to compensate for lack of certain abilities', ranging from low-tech devices like crutches or a special grip for a pen, to more advanced items like hearing aids and glasses, to high-tech devices such as computers with specialized software for helping dyslexics to read (WHO, 2009). Also known as 'technical aids', or 'assistive equipment', including information and communication technologies (ICT), universally designed technologies, educational technologies, emerging and innovative technologies, and accessible technologies; they can be 'any item, piece of equipment or product system that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities, and help them to work around or compensate for a disability', in order to participate in the activities of daily life. From a simple device like a magnifying glass, to a complex computerized communication system; depending on their nature of use and application, assistive technology devices can be used by students with disabilities on their own or with assistance, in and outside the learning setup. Some of the examples of assistive technology devices are - touch control devices,

alternative keyboards and mouse, speech-to-text word recognition tools, word prediction programs, word processors, grammar checkers, scanners, compact disc recording (CD-R and CD-RW) drives and spell checkers (Petty, 2012).

The ability to access information is essential for success in education, employment, social integration, and life in general (Kapperman and Sticken, 2000). Therefore, much of the development of assistive technology for individuals with visual impairment, has focused on providing access and keeping them abreast of happenings around their community, and the society at large. According to United Nations, assistive technology is technology adapted or specially designed to improve the functioning of people with disabilities (Borg, Lindstrom, and Larsson, 2009). It is a broad concept covering anything that might be used to compensate for lack of certain abilities (Reed and Bowser, 2005). Assistive technology is an interdisciplinary field of knowledge, comprising products, resources, methodologies, strategies, practices and services (Petty, 2012). These are aimed at promoting the functionality of persons with visual impairment, with regards to autonomy, quality of life, and social inclusion.

For centuries, technology has been adopted to provide opportunities to individuals with visual impairment, that is, those who are blind or have low vision. The use of such assistive devices can be traced to the use of canes. Today, more sophisticated assistive technology devices are being used by persons with visual impairment to travel independently from place to place, access information, as well as participate in a variety of social activities. The development of the computer in the 1960s, led to an explosion that individuals with visual impairment could use to access information, and interact freely with their nondisabled counterpart. Today, due to new innovations in assistive technology, individuals with visual impairment have a better grasp on interpersonal, social as well as academic life, as they are well adjusted. The media, internet resources, and a variety of other socially engaging activities on the World Wide Web, are now at the fingertips of persons with visual impairment. Assistive technology such as An advanced tactile printer, known as braille embosser, advanced closed circuit television [CCTV], a device that enlarges reading or printed text, scanners and optical character recognition software technology, that scans printed material, and provides the user with-spoken feedback, mobile phones with talk backtext to speech devices, computer screen readers and multiple hardware and software innovations, is observed to have reduced tremendously, problems of unemployment, amongst persons with visual impairment, thus giving them equal opportunities to compete favorably with their non-visually impaired counterpart in the labour market (Kapperman and Sticken 2000). This is among the reasons this study intends to ascertain the influence of assistive technology on social adjustment among student with visual impairment.

Self-esteem means how people think about themselves, how much they like themselves and if they are satisfied with their performance, especially how they feel about society, education and family and to what extent their ideal self and actual self are close to each other. It is how an individual values him or herself; how they perceive their value to the world and how valuable they think they are to others. It affects trust in others, relationship, work and nearly every part of the life of the individual. Most authorities believe that self-esteem is a central factor and a base to people social and emotional compatibility. This belief has been extended- and it has a long history. At first, psychologists and socialists such as Parker, Summerfeldt, Hogan and Majeski(2004) lay emphases on the importance of self-esteem on real life situation. A collection of characteristics that a person uses to describe himself is known as a person "self-imagination". Self-esteem is seen as the extension of values which the information within self-imagination has for a person and it comes from a person's beliefs about all the attributes and features presented in him. Self-imagination has a particular

importance for mental and social health because the, person's imagination about his personality determines his image about environment. Self-esteem is the rate of validity, approval, acceptance and worthiness that a person feels about himself. A sense of self-evaluation and self-esteem are basic needs to mental relief and social adjustment, and are also needs on which life satisfaction is depended extremely (Nabi, Ghasim, and Beirami, 2010).

Home factors are observed to be most important factors that could determine every sphere of development of a child and it seems that many factors related to family background, number of living parents, parents' encouragement and socio-economic support of the home could influence children's emotions, attitudes and social adjustment. The methods of raising the children could depend on the occupation of the parents. The families that belong to higher socio-economic status are more successful in making their wards go to school for study. This is due to the reason that these families have resources which are helpful to promote the development of young children. It was observed that the Central focus of each family always rests on the bearing and rearing of child and its adjustment in the society. The form and style of living in each family varies from one society to other ranging from parental involvement, and its contribution to the education of the child.

According to Adivale (2002), the-status of family also affects the health conditions of family. Rothesnstein (2004) is of the view that "different occupation strata of parents have different views in case of importance of discipline among the children and also for the importance of educational standards for their children. Such tendencies of parents affect the educational and social development of students". Machebe (2012) has suggested that the socio-economic status of parents not only influences the development of children at home but it also develops a competition among the students belonging to persons of different social and economic strata. The children of parents belonging to low socio-economic status feel depressed against the students from higher socio-economic status. Laosa (2005) states that "the differences among the students exists due the family backgrounds such as nutrition and health status, environment at home, income of parents, their educational level and experiences, means of recreation in the family are factors that could influence the educational and social achievement of students". In their findings, Oni and Omoegun (2007) have concluded that a significant difference exists among the rate of deviation behaviour among the students belonging to different socio-economic statuses.

Family background of students with visual impairment could go a long way to influence their social adjustment because it has to do with the quality of time and attention given to the students. Polygamous family was observed to be large family and as a result, most fathers, do not bother to cater for their children. The parental educational background was also observed to be among factors that can influence social adjustment of the children with visual impairment because it seems that illiterate parents ignorantly relate in unfavorable manner with the visually impaired. Machebe (2012) is in support of the above statement because in his research findings, socio-economic status of parents influences the academic performance of students to a certain degree in the schools. A study conducted to examine socio-economic status of parents and home environment on the development of students asserted that deprivations from such environmental variables affect resonant self-efficacy and positive personality adjustment. Furthermore, they also stated that children with visual impairment from low socio-economic status suffer more than their counterpart from high socioeconomic status (Singh and Singh, 2014). This and other aforementioned factors attracted the attention of this study to examine assistive technology usage, self-esteem and home factors as predictors of social adjustment of students with visual impairment.

Statement of the Problem

The importance of social adjustment of students with Visual impairment cannot be underestimated because of its significant influence on every aspect of their life. It was observed that, if they are properly and socially adjusted, it will help them to; be able to participate in the development of the nation, have sense of belonging, able to articulate their needs, relate with people easily in the society, maximize their potential and actualize their aspiration. This also will invariably have significant influence on their quality of life, psychological well-being and their academic achievement. More so, it was observed that inability of visually impaired persons to be socially adjusted due to their visual impairment increases the rate of population of dependent group in the society, and predisposes them to some psychopathologies. This attracted the attention of this study to examine factors that are associated with social adjustment of students with visual impairment.

However, many studies have been conducted on social adjustment of student with visual impairment, worthy to mention are; A study examined adjustment, level of aspiration, self-concept and academic achievement of visually handicapped school children of Assam. Another one studied adjustment and anxiety in visually handicapped male and female adolescents. One also examined adjustment ability of physically disabled and able students from the colleges of Dharwad and Belgaum. But there is no study that has examined assistive technology, self-esteem and the home factors as predictors of social adjustment among students with visual impairment, and this informed the direction of this study.

Purpose of the Study

The general purpose of the study is to determine assistive technology, self-esteem and home factors as predictors of social adjustment of students with visual impairment in Lagos state, Nigeria.

Specific purposes of the study are determined:

1. The significant joint contribution of assistive technology usage, self-esteem and home factors on social adjustment of students with visual impairment in Lagos state, Nigeria.
2. The significant relative contribution of assistive technology usage, self-esteem and home factors on social adjustment of students with visual impairment in Lagos state, Nigeria.

Hypotheses

H₀₁: There is no significant joint contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment in Lagos state, Nigeria.

H₀₂: There is no significant relative contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment in Lagos state, Nigeria.

Methodology

Research Design

This study utilized survey design of *ex-post facto* with the use of structured questionnaire. The rationale for this research design is that the variables of the study had occurred in nature prior to the commencement of the study and the researcher does not have control over the concomitant variables. The independent variables are assistive technology, self-esteem and home factors (family background, parent's educational attainment and parent's socio-economic status) while the dependent variable is social adjustment.

Population of study

The population of the study comprised students with visual impairment in Lagos state of Nigeria.

Sample and Sampling technique

The study adopted purposive sampling technique to select 100 visually impaired student from 2 mainstream secondary schools and 2 rehabilitation centers for the blind in Lagos state, Nigeria namely; King's College, Queen's College, Federal Nigeria Society For The Blind, and 'Pacelli School For the Blind.

Instruments

Questionnaires were used to collect relevant information from the participants of the study. The questionnaire was divided into five segments with each of the segments tapping information based on the identified variables of interest which comprises four sections. The structure of the questionnaire is outlined below.

Section A: Socio-demographic Variable

In this section of the questionnaire, socio-demographic information of the participants will be captured ranging from the name of their school to their age. This section consists of variables such as name of school, religion, gender, class, age, family background, parent's educational attainment and parent socio-economic status.

Section B: Assistive Technology Usage Scale

The Assistive Technology Usage questionnaire was developed and standardized by American foundation for the blind and was designed to assess the level of assistive technology usage of visually impaired students. The questionnaire consists of 10 items and all items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. With the pilot test sample, the resultant 10 - items questionnaire yielded alpha coefficient of .86 and a split half reliability of .89 and Guttman split-half reliability coefficient yielded .81.

Section C: Self-Esteem Scale

Self-esteem Scale is developed by Rosenberg (1965). It is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. With the pilot test sample, the resultant 10 - item scale yielded alpha coefficient of .57.

Section D: Social Adjustment Scale

Social Adjustment Scale is a standardized scale developed by *Mundt, Marks,* Shear and Greist, (2002). The scale is 15-items scale which was adapted to suit the student with visual impairment population and was used to assess their social adjustment. The authors reported good internal consistency for the sighted population. The scale is anchored on an 8-point likert response option ranging from "Not at all" to "very severely". With the pilot test sample, the resultant 15 - item scale yielded alpha coefficient of 0.94.

Section E: Family Background Questionnaire

This self-structured questionnaire designed by the researcher through thematic analysis of the conceptual background and theoretical review. This questionnaire was developed to assess the family background of the student - with visual impairment, whether they belong to monogamous family or polygamous family.

Section F: Parent's Educational Attainment Questionnaire

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This self-structured questionnaire designed by the researcher through thematic analysis of the conceptual background and theoretical review. This questionnaire was developed to assess the parent's educational attainment of the student with visual impairment. The questionnaire has the following response option; Ph.D, M.Sc, B.Sc/HND, OND/NCE, Secondary school certificate, Primary school certificate and No formal education.

Section G: Parent Socio-Economic Status

This scale was designed by Salami (2000) to determine the socio-economic status of parents through their occupation, educational level, residence and types of equipment in the house. This scale has 12 items, items 1 - 4 are on the pupils' bio-data. Items 5-12 are based on parents' occupation, educational level, residence and types of equipment in the house.

The scoring pattern for the scale is:

Parent occupation	1-10 points
Educational level	1-14 points
Parent's residence	1-6 points
Type of house	1-3 points
Equipment in the house	1-17 points

The maximum score is 60 and this gives an indication based on three socio-economic status levels. These are:

0-15 points	-	Low socio-economic status
16-40 points	-	Middle socio-economic status
41-60 points	-	High socio-economic status

The test-retest reliability of the scale is 0.73. This scale was validated by Salami (2004) and Adekanmi (2010). The instrument revalidation yielded a reliability coefficient of 0.75. It was also revalidated by Ayodele (2011) and yielded a reliability coefficient of 0.87 which implies that the instrument is reliable.

Method of Data Analysis

The data collected in the study was analyzed using statistical package for social science version 20. Frequency count and percentage was used to present the demographic data of the respondents while regression statistical tool was used to analyse all the research hypotheses and tested at 0.05 level of significance.

Results

Hypothesis one: There is no significant joint contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment in Lagos State, Nigeria. This was analysed using multiple regression statistical tool and the result is presented in Table 1 below:

Table 1: Multiple regression analysis independent variables on social adjustment

R= .607					
R (adjusted) = .369					
R² (adjusted) = .335					
Standard error of estimate = 10.388					
Model	Sum of Square	Df	Mean Square	F	Sig.
Regression	5930.036	5	1186.007	10.992	.000"
1 Residual	10142.804	94	107.902		
Total	16072.840	99			

Table 1 shows the joint contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment in Lagos state, Nigeria. The result shows that assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) yielded a coefficient of multiple correlations (R) of 0.607 and multiple correlations square of 0.369. This shows that about 33.5% (adjusted $R^2 = .335$) of the total variance of social adjustment of students with visual impairment in Lagos state, Nigeria was accounted for by the linear combination of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) while the remaining 66.5% could be assigned to other estranged factors not considered in this study. The table also indicated that assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) had significant joint influence on social adjustment of students with visual impairment in Lagos state, Nigeria ($F(5,94) = 10.992; p < 0.05$).

Hypothesis two: There is no significant relative contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment in Lagos state, Nigeria. This was analysed using multiple regression statistical tool and the result is presented in the Table 2 below:

Table 2: Multiple regression analysis the independent variables on social adjustment

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	16.444	9.675		1.700	.092
family background	-.758	1.794	-.037	-.422	.674
parent educational attainment	-.457	.748	-.057	-.611	.543
Parent socio-economic status	-.446	1.499	-.027	-.298	.766
Assistive technology usage	.158	.177	.580	5.895	.037
self-esteem	1.509	.244	.556	6.193	.000

•a. 'Dependent Variable: social adjustment

Table 2 reveals the relative contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment in Lagos state, Nigeria. The table also shows that assistive technology usage and self-esteem made significant independent contribution to social adjustment of students with visual impairment ($\beta=0.580$; $t=5.895$; $p<0.05$. $\beta=-0.556$; $t=6.193$; $p<0.05$) while family background, parent's socio-economic status and parent educational background made no significant independent contribution to social adjustment ($\beta=-0.037$; $t=-0.422$; $p>0.05$. $\beta=-0.057$; $t=-0.611$; $p>0.05$. $\beta=-0.027$; $t=-0.298$; $p>0.05$) among students with visual impairment in Lagos state, Nigeria. Therefore, the hypothesis was partially discontinued. This implies that assistive technology usage and self-esteem are potent predictors of social adjustment of students with visual impairment in Lagos state, Nigeria.

Discussion

Assistive Technology Usage, self-esteem and home factors (family background, parent's educational attainment and parent educational background) as joint influencing factors of social adjustment of students with visual impairment was examined. The result revealed that assistive technology usage, self-esteem and home factors (family background, parent's educational attainment and parent educational background) had significant joint influence on social adjustment of students with visual impairment. This is an indication that students with visual impairment who adequately use assistive technology and have high self-esteem, and have favourable home factors (family background, parent's socio-economic, status and parent educational background) will be socially adjusted. The implication of this finding has to do with the ability of the family of students with visual impairment to use their educational knowledge to seek for appropriate help from the special educator or health related professionals on the best assistive technology that will help their children to adjust and also provide help needed to the students in order to develop high self-esteem which will help them adjust socially. The finding of this study is in congruence with the findings of Alper and Raharinirina, (2006) who found and reported that it is important to assess the students with visual impairment within the context of the environment in which they will be using the assistive device, alongside initial training in use of the device, regular communication and monitoring of changing client needs. They further reported that adopting an assistive device that meets the needs of the individual requires collaboration between the assessors, the student with visual impairment, their families/caregivers and the service provider. Similarly, the result of this study corroborate with findings of Freedman, Agree, Martin and Cornman (2005) who found that people with visual impairment using assistive technology effectively report increased self-esteem and confidence as they have adequate family support, and they are able to achieve their goals in areas of personal care, home care, education, vocation, communication and mobility through proper social adjustment.

The relative contribution of assistive technology usage, self-esteem and home factors (family background, parent's socio-economic status and parent educational background) on social adjustment of students with visual impairment was examined. The result revealed that assistive technology usage and self-esteem made significant independent contribution to social adjustment of students with visual impairment while family background, parent's educational attainment and parent educational background had no significant independent contribution to social adjustment. This implies that assistive technology usage and self-esteem are potent predictors of social adjustment of students with visual impairment in Lagos state, Nigeria. On the account of the relative influence of assistive technology on social adjustment. Wilson, Mitchell, Kemp, Adkins and Mann, (2009) found and reported that assistive technology usually assists with mobility, cognitive, social, communication and/or accessibility problems as a result of a disability, health-related

condition or ageing. They further reported that assistive technology devices can range from low tech such as bathing and dressing equipment, to high tech such as hardware and software which improve access to computers and other information technologies and make social adjustment easy. The use of assistive technology is reported to enable the person to feel more included in their home and community through reducing dependence and facilitating activities of daily living according to the findings of the study of Wilson, Mitchell, Kemp, Adkins and Mann (2009) which is consistent with the findings of this study. It was observed that assistive technology gives students with visual impairment opportunities to flourish as any other student; they have the potential to lead fulfilling lives and to contribute to the social activity in the society with the use of assistive technology. It can be imagined that surviving and thriving can be especially difficult for student with visual impairment before the technological advancement that brings about the development of assistive technology. Before the advent of assistive technology, it can be imagined the extent to which students with visual impairment will be isolated and excluded, cut off from health and social services, and with limited opportunities to participate in family and community life as a result of lack of assistive technology and inability to adjust socially in the society.

It has been noted by the findings of WHO (2014) that one of the most important requirements for students with visual impairment to be able to adjust socially is their access to assistive technology and the result of the findings of this study has also proven it that; it had significant influence on their social adjustment. For many children, assistive technology represents the difference between helping the students with visual impairment to be able to adjust and able to be socially connected or being deprived of the social activity. Assistive technology includes products and related services that improve the functioning of students with visual impairment and that is the reason why most students see it as an instrument that enables them to adjust socially and participate in the ongoing social activities in the society, as well as participation in various facets of life.

The result of the study also indicated that self-esteem has significant independent contribution to social adjustment. This finding corroborates with findings of Sajjadi, Leila, and Fakhri (2016) who conducted a study entitled the relationship between social adjustment and self-esteem, and found that there is a positive correlation between social adjustment and social self-esteem. Similarly, Barzgar and Hosseini, (2014) carried out a study entitled the relationship between self-esteem and social adjustment, and also found a significant relationship between self-esteem and social adjustment which Was consistent with the findings of this study. This is an indication that self-esteem is potent predictor of social adjustment among students with visual impairment. Self-esteem itself is a feeling of affection for oneself that develops largely through visceral or irrational processes and it is believe in this study that self-esteem is a judgment that students with visual impairment make about themselves. This judgment is largely based on an assessment of their various abilities and attributes, and this goes a long way to influence their social competence and the ability to socially adjust in the society, which is what the result of this present study is pointing at. Dawn (2005) also found significant relationship between self-esteem and social adjustment among students with visual impairment, which support the findings of this study.

On the account of independent contribution of home factors (family background, parent's socio-economic status, and parent educational background) to social adjustment of students with visual impairment, the result revealed that there is no significant influence of the considering home factors on social adjustment. The indication of this result is that whether the student with visual impairment is from monogamous or polygamous family, it does not have any significant influence on their extent to be socially adjusted.

Likewise, the educational background of their parent does not have any significant influence on their social adjustment and socio-economic class of their parents had no impact on the social adjustment of the students. This result is partially consistent with the findings of Ean-Claude, Caroline, Emmanuel, Maithe, Juliane, Sylvic, Marc, Raja, Jean-Louis and Joel Coste (2006) who found that Low social adjustment was associated with lower paternal socioeconomic class.

Conclusion

Vision is an essential part of human existence as it plays vital role in the life of an individual. It is vision that enables an individual to recognize objects and the relationship between them as well as norms that govern the conduct of the ordinary relationships of everyday life (Parry, 2007). Invariably, a person with low or no vision faces a lot of challenges coping with the dictates of human world. These challenges, according to Adebisi(2004) and Komolafe(2004)include restriction of movement, financial and social problems, restricted recreation choices, limited job opportunities, anonymity and personality integration as well as loss of confidence in themselves and their abilities. This attracted the attention of this study and the study examined assistive technology usage, self-esteem and the home factors as predictors of social adjustment of students with visual impairment in Lagos State, Nigeria. Specific home factors were examined and discussed.

However, it was discovered that there was a significant joint influence of assistive technology usage, self-esteem and home factors; family background, parent's socio-economic status and parent educational background on social adjustment of students with visual impairment. Also, self-esteem and assistive technology usage had significant independent contribution to social adjustment of students with visual impairment in Lagos State, Nigeria. It ' was discovered that none of the home factors had significant independent influence on social adjustment of students with visual impairment in Lagos State, Nigeria.

Recommendations

Based on the findings from this study, the following are recommended:

1. Stakeholders in education, government and non-governmental organization should endeavour to make assistive technology affordable and available within the reach of the students with visual impairment. This will assist them to be able to relate with their environment well because the findings of the study revealed that assistive technology had significant influence on social adjustment of students with visual impairment
2. Stakeholders in education, government and non-governmental organization should also organise training programmes on how to make use of different assistive technology for the students with visual impairment because it was observed during this study that majority of them had low usage knowledge of different assistive technologies.
3. Special educators and counseling psychologists in schools should endeavor to develop psycho-educational intervention which will help students with visual impairment to boost their self-esteem. This will also help their social adjustment because the findings of this study revealed that, there was a significant influence of self-esteem on social adjustment of students with visual impairment.
4. It is recommended that parents, social workers, rehabilitation officers and government workers working with students with visual impairment should take cognisance of the impact of assistive technology usage, self-esteem and home factors in order to enhance the social adjustment of students with visual impairment.

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