

PSYCHO-PERSONAL FACTORS AS PREDICTATORS OF ORIENTATION AND MOBILITY SKILLS ACQUISITION AMONG STUDENTS WITH VISUAL IMPAIRMENT IN OYO STATE, NIGERIA

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ABSTRACT

*Orientation and mobility skills are one of the important skills that is expected to be acquired by the visually impaired for their day to day activities. This research work therefore takes a look into psycho personal factors as predictors of orientation and mobility skills acquisition among secondary school students with visual impairment in Oyo State, Nigeria. The purpose of the study is to identify the relationship that exist between the independent variables and the dependent variable, examine the joint contributions of the independent variables to the dependent variable and to investigate the relative contributions of the independent variables to the dependent variable. The study utilizes survey research design of the correlation type. Purposive sampling technique was used to select 80 respondents including male and female secondary school students with visual impairment who are totally blind and having low vision. The data was gathered through qualitative and quantitative methods with the use of questionnaire to collect data from the respondents while interview was conducted for selected respondents on psycho-personal factors that predict acquisition of orientation and mobility among secondary students with visual impairment. The data was analyzed using descriptive statistics of frequency count, percentage, mean and standard deviation with the thematic analysis used for the key informant at the interview section. The result revealed that, there is significant relationship between the independent variables and the dependent variable, also in the findings it was evident that the joint contributions of the independent variables was also significant and the relative contributions of the independent variables to dependent variable was also significant in the result. **Based on the findings the study therefore recommends that,** there should be a design Orientation and mobility training programs that incorporate self-esteem-building activities and positive reinforcement strategies, Include anxiety management modules such as mindfulness, relaxation techniques, and exposure-based training coupled with aligned training goals with students' personal aspirations to sustain motivation.*

Keywords: Psycho-Personal Factors, Orientation, Mobility, Students, Visual Impairment.

INTRODUCTION

Visual impairment is a global issue affecting millions of individuals, encompassing a range of conditions that result in partial or total vision loss. These conditions may be present from birth

(congenital) or acquired later in life due to genetics, injuries, or diseases like glaucoma and macular degeneration. Visual impairment affects not only the physical functioning of the eyes but also how the brain interprets visual information, impacting daily activities significantly. This condition influences various aspects of life, including communication, learning, and mobility, leading to physical, social, and psychological challenges (World Health Organization, 2018). Abodunrin and Abodunrin, [2020] define visual impairment as a condition characterized by deficiency in the organ of sight which hinders individuals' capabilities from performing certain functions that require the use of sight.

It has been discovered that majority of adolescents with visual impairment are confronted with many difficulties due to some losses associated to blindness which includes loss of self-esteem, total personality, organisation, financial security, personal independence and social adequacy when it comes with the process of adjusting to their disabling condition. This occurs as a result of negative attitude of some parents towards their children with visual impairment (Abodunrin, 2021).

Individuals with visual impairment often face significant challenges, ranging from social isolation to educational difficulties. Socially, they may struggle with communication and mobility, leading to exclusion from activities. In terms of education, these individuals frequently lack access to specialized materials and support, which hinders their learning and future career opportunities. Psychologically, the constant need for assistance can lead to dependency, low self-esteem, frustration, and a decreased sense of autonomy (American Foundation for the Blind, 2020).

Mobility plays a crucial role in the lives of individuals with visual impairment as the ability to move independently is vital for engaging in everyday activities. Those affected often depend on others for movement, which can diminish their sense of autonomy and self-esteem, further exacerbating their challenges (LaGrow, 2013). Acquiring independence in mobility through orientation and mobility (Orientation and mobility) skills is essential for improving these individuals' quality of life.

The inability to navigate spaces independently is a significant issue for those with visual impairments, particularly when recognizing faces, reading printed materials, and interpreting visual cues in educational and social settings. These limitations often lead to dependency on others for basic tasks, reducing an individual's autonomy and increasing the likelihood of social isolation. Such dependence can have far-reaching psychological implications, including lower self-esteem and heightened anxiety, as individuals with visual impairment feel more vulnerable and helpless due to their reliance on assistance from others (American Foundation for the Blind, 2020).

Mobility challenges often translate into reduced educational and employment opportunities. When individuals with visual impairment cannot move around freely, their participation in school and professional environments is hindered, creating barriers to success and social integration. Hence, training programs that teach essential orientation and mobility skills are necessary to enable individuals to navigate their environment independently (Hill and Ponder, 2019). Orientation and mobility skills help individuals avoid obstacles and give them

the confidence to engage more fully in social, educational, and professional activities (Warren, 1994).

In Nigeria, the difficulties faced by students with visual impairments are particularly pronounced. From primary school to higher education, these students must learn to function within educational environments designed for sighted individuals. Challenges include moving between classrooms, accessing learning materials, and participating in co-curricular activities. In university settings, the complexity and size of campuses further compound these difficulties, as students with visual impairment need to navigate large, unfamiliar spaces. These barriers to mobility often lead to an increased sense of dependence, which can lower self-esteem and negatively affect academic performance (American Foundation for the Blind, 2020).

Orientation and mobility skills are essential for fostering independence among individuals with visual impairment. These programs focus on helping individuals develop awareness of their surroundings, plan routes, and navigate different environments using techniques such as cane travel, echolocation, or guide dogs. Practical Orientation and mobility training equips individuals with visual impairment with the confidence and competence to move safely, avoid obstacles, and engage fully in daily activities (Hill and Ponder, 2019).

Mastering Orientation and mobility skills is crucial for building personal autonomy, especially for students with visual impairments who must navigate complex environments like school campuses. The ability to move independently significantly enhances a person's quality of life by reducing the need for constant assistance and boosting self-esteem (Wiener, Welsh and Blasch, 2010).

Psycho-personal factors are internal characteristics that influence an individual's thoughts, emotions, and behaviours, particularly when learning new skills. For individuals with visual impairment, these factors play a crucial role in determining how successfully they acquire orientation and mobility skills, essential for navigating their environments safely and independently. While the physical aspects of Orientation and mobility training focus on practical skills such as route planning and obstacle avoidance, psycho-personal factors, including self-esteem, motivation, anxiety, age, and gender, influences an individual's readiness to engage in, and benefit from this training. These factors shape students' approach to learning, their perception of their ability to succeed, their persistence in skill acquisition, and their response to challenges they encounter during the learning process. Understanding these factors provides valuable insights into how students respond to challenges and how interventions can be tailored to individual needs.

Self-esteem is an individual's overall sense of self-worth and confidence that is fundamental to how students with visual impairment approach the acquisition of Orientation and mobility skills. Students with visual impairment with higher self-esteem are more likely to engage in the learning process of Orientation and mobility training with confidence, persisting in their efforts even in the face of difficulties. Low self-esteem, on the other hand, can hinder skill acquisition, as students may doubt their abilities to perform tasks independently, leading to avoidance behaviours that can impede their progress and increase their dependence on others. Enhancing self-esteem through positive reinforcement and supportive environments

is crucial for encouraging students to pursue independence in mobility (Wiener, Welsh and Blasch, 2010).

Motivation, both intrinsic and extrinsic, is a critical driver of learning. Intrinsic motivation comes from within the individual, driven by personal satisfaction and a desire for independence and mastery of mobility skills. In contrast, extrinsic motivation is driven by external rewards or encouragement, such as praise from instructors or family members or the need to meet certain expectations. For students with visual impairment, motivation can determine their willingness to engage in Orientation and mobility training. Highly motivated students are more likely to persist in their learning, even when faced with challenges, which results in more successful outcomes in Orientation and mobility training. On the other hand, those with low motivation may struggle to see the value in the training and disengage from the process (Ryan and Deci, 2000). Creating an environment that fosters intrinsic and extrinsic motivation is essential for successful skill acquisition.

Anxiety can significantly impact a student's with visual impairment ability to acquire Orientation and mobility skills. It often manifests as a fear of failure, concern about safety, or apprehension about navigating new or unfamiliar environments. Anxiety may cause students to avoid challenging situations or withdraw from training altogether, leading to slower progress or failure to acquire essential mobility skills. Addressing anxiety early in the training process is vital to prevent these adverse outcomes. Trainers can employ strategies such as gradual exposure to challenging environments and offering reassurance to help students build confidence and reduce their anxiety levels (Smith and Miller, 2017).

Age and gender is one of the variables that can influence the acquisition of Orientation and mobility skills. Younger students tend to be more adaptable and open to learning new skills. In contrast, older students may face additional challenges, such as slower learning rates or increased anxiety about navigating their environment independently due to age-related factors. Gender may also play a role, as social expectations and cultural norms can affect how male and female students approach their Orientation and mobility training. In some contexts, women with visual impairment may face more significant challenges in accessing training due to social norms or expectations, which can hinder their access to training or reduce their confidence in their abilities (Hill and Ponder, 2019), highlighting the need for gender-sensitive approaches in Orientation and mobility education.

This paper investigates the psycho-personal factors as predictors of orientation and mobility skills acquisition among students with visual impairment in Oyo State, Nigeria

Purpose of the Study

The purpose of this study is to:

1. Identify the relationship that exist between the independent variables(psycho personal factors) and the dependent variables(orientation and mobility skills) among students with visual impairment, Oyo State, Nigeria.
2. Examine the joint contributions of psycho personal factors to the acquisition of orientation of Orientation and mobility skills among students with visual impairment in Oyo State, Nigeria

3. Investigate the relative contributions of psycho personal factors to the acquisition of orientation of Orientation and mobility skills among students with visual impairment in Oyo State, Nigeria

Methodology

This research work utilize a **mixed-methods design** to comprehensively examine the psycho-personal factors as predictors of acquisition of orientation and mobility skills among students with visual impairment in Oyo State, Nigeria. This approach combines quantitative methods to provide measurable insights into factors such as self-esteem, motivation, and anxiety with qualitative methods to explore individual experiences in depth. The **quantitative component** involves surveys to capture data on specific psycho-personal characteristics. While the **qualitative component** uses semi-structured interviews to delve into personal narratives and contextual factors that may affect Orientation and mobility skill acquisition. The sample for the study comprises of respondents including male and female secondary school students with visual impairment. Purposive sampling techniques was used to select the respondent that satisfy the criteria for representation. A structured questionnaire was developed, integrating validated scales to measure the psycho-personal factor. Method of Data Analysis Descriptive statistics of frequency count, percentages, mean and standard deviation was used to analysis the data collected for the study while the interviews was analyse using **thematic analysis** approach experiences. Coding was conducted iteratively, first with open coding to capture initial themes, followed by axial coding to link related concepts. Key themes, such as cultural perceptions, gender influences, and age-related challenges, was analyzed in-depth to understand the nuanced impact of psycho-personal factors on Orientation and mobility skills

RESULTS

Answering of Research Questions

Research Question One: What is the joint contribution of the independent variables (self-esteem, self-determination and anxiety) to the dependent variable (orientation and mobility skills, orientation and mobility skills acquisition) among secondary school students with visual impairment in Ibadan?

Table 1: Joint contribution of the independent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.665 ^a	.442	.418	1.40633

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	111.927	3	37.309	18.864	.000 ^b
Residual	45.494	23	1.978		
Total	157.421	24			

Table .1 shows that there was joint contribution of the independent variables (self-esteem, self-determination and anxiety) on orientation and mobility skills acquisition among students with visual impairment in Ibadan; $R = 0.665$, $p < .05$. The table further reveals 41.8% (Adj. $R^2 = 0.418$) of the variance in the orientation and mobility skills acquisition among students with visual impairment in Ibadan were accountable for by the linear combination of the independent variables. The ANOVA results from the regression analysis show a significant contribution of the independent variables on the dependent variables; $F(3, 23) = 18.864$, $p < 0.05$. It implies a significant joint contribution of the independent variables on orientation and mobility skills acquisition among students with visual impairment in Ibadan.

Research Question Two: What is the relative contribution of independent variables (self-esteem, self-determination and anxiety) to the dependent variable (orientation and mobility skills acquisition) among students with visual impairment in Ibadan?

Table 2: Relative Contribution of the Independent Variables on the Dependent Variable

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.133		.169	2.066	.041
Self-esteem	.217	.107	.167	2.026	.045
Self-determination	.157	.094	.113	1.996	.047
Anxiety	.417	.074	.444	5.673	.000

Table 2. above shows that the three independent variables contributed to orientation and mobility skills acquisition among students with visual impairment in Ibadan used for the study. The variables include the following: self-esteem ($\beta = 0.167$, $t = 2.026$, $p < 0.05$); self-determination ($\beta = 0.113$, $t = 1.996$, $p < 0.05$) and anxiety ($\beta = 0.444$, $t = 5.673$, $p < 0.05$). It was observed that the anxiety was the most potent contributor to orientation and mobility skills acquisition among students with visual impairment in Ibadan while self-determination was the least. It implies a significant relative contribution of the independent variables to the dependent variable

Testing of Hypothesis

Hypothesis One: There is no significant relationship between self-esteem and orientation and mobility skills acquisition among students with visual impairment in the Ibadan metropolis.

Table 3.: Descriptive Statistics and Correlations among the variables

	1	2	3	4
Self-esteem	1.000			
Motivation	.420**	1.000		
Anxiety	.597**	.533**		
Orientation and Mobility	.419**	.471**	.300**	1.000
Mean	40.60	24.527	65.660	79.193
Std. Deviation	4.97	6.383	6.133	8.135

The results in Table 3. shows that there is significant relationship between self-esteem and orientation and mobility skills acquisition among students with visual impairment ($r = 0.419$

and $p < 0.05$). Since $p < 0.05$, it implies that there is significant relationship between self-esteem and orientation and mobility skills acquisition among students with visual impairment.

Hypothesis Two: There is no significant relationship between motivation on and orientation and mobility skills acquisition among students with visual impairment in the Ibadan metropolis.

The results from Table 3 showed that there is significant relationship between motivation and orientation and mobility skills acquisition among students with visual impairment ($r = 0.471$ and $p < 0.05$). Since $p < 0.05$, it implies that there is significant relationship between self-determination and orientation and mobility skills acquisition among students with visual impairment contrary to null hypothesis raised.

Hypothesis Three: There is no significant relationship between anxiety and orientation and mobility skills acquisition among students with visual impairment in the Ibadan metropolis. The results from Table 3. showed that there is significant relationship between anxiety and orientation and mobility skills acquisition among students with visual impairment ($r = 0.300$ and $p < 0.05$). Since $p < 0.05$, it implies that there is significant relationship between anxiety and orientation and mobility skills acquisition among students with visual impairment contrary to null hypothesis raised.

Qualitative Results

Question 1: How do you feel about yourself when learning new mobility skills?

Ans. The participants responded that they feel confident in their ability to navigate independently and they are persistent in handling challenges when learning the skills.

RQ 2: What motivates you to engage in orientation and mobility training?

Ans. Our motivation is our personal goals that hopefully after the training we would be able to move about independently which is important to our independence life, that is, our motivation in learning O and M skills.

RQ 3: Do you feel any anxiety when learning new mobility techniques?

Ans. The situation where we felt most anxious is when its time to practice independently and during this period we managed our anxiety by keeping calm.

RQ 4: Do you think age or gender affects your experience in learning O and M skills?

Ans. We do not observed any specific challenges that related to age or gender at all more so the age and gender did not shape our experience in the course of our training period.

RQ 5: How do you think societal views about visual impairment influence your motivation to learn O and M skills?

Ans. Family or community expectations did not play any role in motivating us in learning the O and M skills. On what we want the society to know is that we want the society to understand that regardless of our impairment, we can still achieve our goals.

RQ 6: What do you find most rewarding and challenging about O and M training?

Ans. We had no particular experience that made us feel proud apart from the fact that we are going to be independent in moving about and my candid advice to give to others learning Orientation and mobility skills is that they should be persistent in learning the skills.

Discussion of Findings

1. Self-Esteem and Orientation and mobility Skill Acquisition

The study found a **positive and moderate relationship** between self-esteem and Orientation and mobility skill acquisition ($r = 0.419$, $p < 0.05$). This suggests that as self-esteem increases, so does the ability to acquire Orientation and mobility skills. This finding corroborates the work of Schroeder et al. (2020), who highlighted that self-esteem promotes confidence and persistence, essential for mastering new skills. Similarly, Miller and Heller (2018) emphasized that individuals with higher self-esteem approach challenges with resilience, reducing avoidance behaviors. Abodunrin and Komolafe [2017], reported that the ability of an individuals with visual impairments to adjust to situation, conditions depends on individual levels of acceptability, accommodation and recognition has part of thr society. They stress further that one of the infigurative factors that better assists person with visual impairments to adjust to situation is the parental involvement coupled with emotional intelligent and self concept.

The results align with Rosenberg's (1965) **Self-Esteem Theory**, which posits that self-worth influences goal-setting and achievement. For students with visual impairment, high self-esteem fosters the belief that they can navigate independently, a critical component of Orientation and mobility training. However, students with low self-esteem may doubt their capabilities, hindering their engagement in training programs, also Abodurin and Lawal, (2022) reported that education has significant impact on humans life, it is a cumulative process of development, which helps to develop intellectually, skills, ability, values, norms and culture that predeposes man to action later in life.

2. Motivation and Orientation and mobility Skill Acquisition

Motivation showed a **positive and moderate relationship** with Orientation and mobility skill acquisition ($r = 0.471$, $p < 0.05$). This indicates that higher motivation leads to better engagement and persistence in learning mobility skills. The findings echo Ryan and Deci's (2000) **Self-Determination Theory**, which highlights motivation as a driver of sustained effort and success in skill development.

Schroeder et al. (2020) and Bandura (1997) also emphasize the importance of motivation in individuals with visual impairment' ability to navigate unfamiliar environments. Motivated students are more likely to take risks, practice regularly, and embrace new challenges, all critical for mastering Orientation and mobility skills. This suggests that creating environments that nurture motivation can enhance training outcomes.

3. Anxiety and Orientation and mobility Skill Acquisition

Anxiety demonstrated a **negative and weak relationship** with Orientation and mobility skill acquisition ($r = 0.300$, $p < 0.05$). Although anxiety hinders skill acquisition, its weaker relationship compared to motivation and self-esteem highlights its less dominant role. This

finding supports the **Stress-Performance Model** (Yerkes and Dodson, 1908), which suggests that moderate anxiety enhances focus, while high anxiety impairs learning and performance. Patel et al. (2018) observed similar trends, reporting that students experiencing high anxiety are less likely to retain and apply new skills. Furthermore, Schroeder et al. (2020) emphasized that anxiety often stems from fear of failure, reducing willingness to engage with complex tasks in Orientation and mobility training.

The results highlight the need for interventions that manage anxiety, such as relaxation techniques or gradual exposure to challenging environments, to optimize training effectiveness.

4. Joint and Relative Contributions

The study revealed that self-esteem, motivation, and anxiety collectively accounted for **41.8% of the variance** in Orientation and mobility skill acquisition. The relative contributions of these factors, with anxiety as the strongest predictor ($\beta = 0.444$) and self-esteem and motivation playing supportive roles, emphasize the interplay of psycho-personal factors in skill development.

This finding aligns with Bandura's (1997) **Self-Efficacy Theory**, which emphasizes the importance of managing psychological barriers to foster engagement. It also resonates with Wiener, Welsh, and Blasch's (2010) argument that a holistic approach addressing multiple psychological factors enhances training outcomes.

5. Perceptions of Age and Gender

Age and gender distribution of the respondents revealed that students did not perceive age or gender as significant barriers to their Orientation and mobility training experiences. This contrasts with Hill and Ponder's (2019) findings, which highlighted cultural expectations influencing gendered experiences in mobility training. The absence of such barriers in this study may reflect the supportive training environment or students' focus on personal goals.

This suggests that Orientation and mobility programs in the study context may have successfully neutralized potential age- and gender-based barriers, providing an inclusive training framework. Future research could explore whether this is consistent across other regions or training programs.

Qualitative Results

1. Self-Esteem and Learning Experiences

Participants reported feeling confident in their ability to navigate independently and demonstrated persistence in overcoming challenges during Orientation and mobility training. This suggests that self-esteem plays a pivotal role in fostering resilience and determination. These findings align with Rosenberg's (1965) **Self-Esteem Theory**, which emphasizes the impact of self-worth on motivation and goal achievement. Confidence and persistence reflect the participants' belief in their capabilities, critical for mastering Orientation and mobility skills.

2. Motivation and Engagement

Motivation emerged as a strong driver for participants, with personal goals of achieving independence identified as the primary motivator. This aligns with Ryan and Deci's (2000) **Self-Determination Theory**, which highlights the importance of intrinsic motivation in sustaining long-term engagement. The emphasis on personal autonomy underscores the transformative potential of Orientation and mobility training in enhancing participants' quality of life and self-reliance.

3. Anxiety During Training

Participants reported experiencing anxiety, particularly during independent practice sessions, where the fear of failure or making mistakes was most pronounced. However, many managed this anxiety by employing calming strategies, demonstrating resilience and adaptability. This reflects Patel et al.'s (2018) findings, which highlight the need for emotional regulation techniques in skill acquisition. The participants' ability to manage anxiety suggests the importance of supportive environments that balance challenge with reassurance.

4. Influence of Age and Gender

Participants did not identify age or gender as significant factors influencing their Orientation and mobility training experiences. This contrasts with studies like Hill and Ponder's (2019), which reported cultural norms affecting gendered experiences. The absence of these barriers in this study highlights the effectiveness of a neutral and inclusive training environment, where personal goals and abilities outweigh demographic considerations.

5. Societal and Cultural Perceptions

Participants expressed a desire for societal recognition of their potential, emphasizing that visual impairment does not limit their ability to achieve independence. This finding resonates with Schroeder et al. (2020), who noted that societal attitudes significantly influence self-perception and motivation. The participants' feedback underscores the need for advocacy efforts to combat stereotypes and foster a more inclusive society.

6. Rewards and Challenges of Orientation and mobility Training

The most rewarding aspect of Orientation and mobility training for participants was the prospect of achieving independence. This sentiment aligns with Wiener, Welsh, and Blasch's (2010) assertion that mobility training transforms individuals' quality of life. Participants highlighted the importance of persistence and encouraged others to approach training with determination, reflecting a growth mindset and positive attitude toward learning.

Conclusion

The study investigates psycho personal factors as predictors of Orientation and Mobility Skills acquisition among secondary school students with visual impirement in Oyo State, Nigeria. The findings revealed that there is a significant relationship between the independent variables and the dependent variables. The findings also established that the joint contributions of the independent variables to the dependent variables was also significant and also it was revealed from the findigs that there's a significant relative contribution of the independent variable to the dependent variable.

Recommendations

Based on the findings, the study therefore recommends that:

There should be a design Orientation and mobility training programs that incorporate self-esteem-building activities and positive reinforcement strategies, Include anxiety management modules such as mindfulness, relaxation techniques, and exposure-based training coupled with aligned training goals with students' personal aspirations to sustain motivation.

There should be an increased fund for accessible Orientation and mobility training programs to ensure equitable access for all students with visual impairment, develop public awareness campaigns to reduce societal stigma and promote inclusion. Also, Establish guidelines for integrating psycho-personal support into Orientation and mobility training curricula.

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