

## **Determinants of Academic Resilience among Post-Secondary School Students with Hearing Impairment in Oyo State, Nigeria**

**John Adedeji Aderele**

*aderelefoundation@gmail.com*  
and

**Adebomi M. Oyewumi, Ph.D.**

*Department of Special Education,  
Faculty of Education,  
University of Ibadan, Nigeria  
oyedebomi@yahoo.com*

### ***Abstract***

*The study investigated some determinants of academic resilience among post-secondary school students with hearing impairment in Oyo State, Nigeria. It examined learning self-efficacy, perceived social support, locus of control and study habit as determinants of academic resilience. The data collected were analysed using Pearson product moment correlation and multiple regression  $R = 0.641, p < .05$ . The results further revealed 38% (Adj.  $R^2 = 0.380$ ) of the variance in the students' academic resilience among post-secondary school students with hearing impairment in Oyo state of Nigeria were accountable for by the linear combination of the independent variables.*

*Social support was the most significant contributor of academic resilience ( $\beta = 0.379, t = 3.857, p < 0.05$ ), followed by study habit ( $\beta = -0.512, t = 5.304, p < 0.05$ ), locus of control ( $\beta = 0.277, t = 2.697, p < 0.05$ ), and learning self-efficacy ( $\beta = 0.160, t = 1.767, p < 0.05$ ). The study recommends that parents and other education stakeholders should provide essential support to students with hearing impairment to enhance their academic resilience. Also, the general public should be enlightened about the determinants investigated in the study. Implications of the results and directions for future research are provided.*

**Keywords:** *Academic resilience, Learning self-efficacy, Students with hearing impairment, Perceived social support, Locus of control*

## Introduction

The term resilience refers to the process of, capacity for, or a successful outcome regardless of challenging or threatening conditions (Howard and Johnson, 2000).

According to Masten (2001), resilience can be defined as “good outcomes in spite of serious threats to adaptation or development”. This is in tandem with the definition by Schoon (2006) who defined resilience as a dynamic process in which students demonstrate adaptive behaviour/actions when experiencing environmental conditions that interfere with or threaten the accomplishment of tasks. As described by Erniati and Sari (2018), it is one of the important factors in attaining personal wellbeing as it ensures survival when in a difficult situation, in a depressed state or even when traumatised. Researches has been carried out in different fields (psychology, psychiatry, sociology, and biological science) on resilience especially on understanding how people withstand adversity without developing negative physical or mental health outcomes neglecting the hearing-impaired students.

Academic resilience has been defined by different researchers, Cassidy (2016) defined Academic resilience as the ability to improve academically especially in an assessment after failing, it involves the ability to overcome severe difficulties which threatens a student's educational development (Martin, 2013). Academic resilience has also been defined as the ability of students to adapt and overcome academic challenges and setbacks, leading to academic success (Richardson, 2002). Students who are academically resilience have a high level of motivation and perform well academically notwithstanding the excessive stress and adverse situations that should make the student fail or drop out of school (Alva, 1991). Though some poor students continue to perform poorly however there are exceptions as many have been reported to turnaround their academic woes (Jimerson, Egeland, and Teo, 1999).

Academic resilience is an important construct that has gained increasing attention in recent years, particularly among students with hearing impairment in post-secondary education. Hearing impairment is a common disability that affects many students in post-secondary education settings. Students with hearing impairment face several challenges, including communication barriers, stigmatisation, and discrimination, which may negatively impact their academic performance and psychosocial wellbeing (Marschark, Shaver, Nagle and Newman. 2015). Studies have shown that students with the hearing-impairment encounter several challenges that can impact their academic performance and psychosocial well-being, including communication difficulties, social isolation, discrimination, and lack of support (Marschark, Shaver, Nagle and Newman, 2015). Academic resilience is a critical factor that enables students to overcome challenges and succeed in their academic pursuits. Factors such as learning self-efficacy, social support, study habit and locus of control have been identified as key factors that influence academic resilience among regular students, however, the extent to which these factors affected students with disabilities, including those with hearing impairment is scarce.

Hearing impairment is a condition that arises from the loss of the ability to detect auditory signals, this simply means that persons with hearing loss may not be able to receive or communicate using sound signals. It is a challenge that could occur before, during or after childbirth and regardless of the time of deafness, hearing loss may have an effect on the

academic, attitude and psychosocial wellbeing of an individual with the impairment. These feelings may reduce academic pursuit and interest leading to withdrawal, truancy and failure. Hearing loss can affect a child's ability to develop speech, language, and social skills. The earlier children with hearing loss start getting special needs services, the more likely they are to reach their full potential.

Resilience is a process of successful adaptation to one's environment in the face of challenges or threatening circumstances (Howard and Johnson, 2000). In academics, resilience is extreme likelihood of success in school and other life achievement regardless of environmental adversities (Khalaf 2014). Student can sustain a high level of achievement, motivation and performance notwithstanding the presence of stressful events and conditions that place them at risk of doing poorly at school and ultimately dropping out of school. Previous researches have indicated that academic resilience can be influenced by many factors but not limited to being raised in a disadvantaged background, poor parenting or divorce (Lidstroem 2001). Though there had been substantial focus on resilience on broader life events, there had been less research on academic resilience on persons with hearing impairment regarding online learning. Aside the effect of hearing loss on academic achievement, having persons with hearing loss to learn through online/virtual mode requires a lot of energy and drive to achieve their potential. Academic success according to Aremu (2003) is a summary of learner's academic score equal or above expected benchmark. As stated above, aside the environmental constraint or disadvantage, a student with high academic resilience cannot stand alone without being determined and confident. The questions are then, why do persons with hearing loss fall at the low scale, while others fall at the high scale. Why do some persons with hearing impairment get a setback academically, while some embrace the challenges before them to stay up?

One can examine a person's academic resilience to determine how well they can handle academic pressure, stress, and setbacks, regardless of their disability or environment. While academic resilience among individuals with hearing loss has not received much attention in research, it is an important predictor of academic performance, especially in the face of adversity. Self-efficacy, or an individual's belief in their ability to execute necessary actions to achieve a goal, is closely linked to academic resilience. This belief can help individuals persist in the face of challenges and reject negative thoughts about their capabilities. Students often rely on visual cues and online tools or materials for communication and learning, making online learning a valuable resource. However, the convenience of online learning may pose challenges for students with hearing impairment, who may fall behind academically without proper academic resilience.

Learning has its drawbacks, such as requiring more preparatory time for teachers, being uncomfortable for some people, and causing frustration and confusion for students and teachers without digital literacy. However, resilience is a vital link to adjusting to online learning. Students with hearing impairments (HIs) need support from friends, teachers, family, and the community to help them learn. Past studies have shown that both personal and environmental factors account for variations in academic resilience among students with hearing loss. Social support can be an essential aspect of coping with the academic challenges faced by students with hearing impairment. Emotional, instrumental,

informational, and appraisal support can improve their mental state, help them cope with adversity, and recover from difficult situations. Social support can come from various sources, such as peers, family, and the academic community, and can take many forms, such as information, assistance, or tangible aid. Locus of control is also crucial in studying students with hearing impairment, as it refers to how they perceive control over their lives. Those with an internal locus of control tend to feel responsible and in control of most events, while those with an external locus of control tend to blame others or external factors for their circumstances.

Supporting students with hearing impairment (HI) in their environment can enable them to influence their surroundings. The way a student with hearing impairment views events and their ability to influence their encounters is called locus of control, which can be internal or external. Those with an internal locus of control tend to take responsibility for events and believe they can influence them, while those with an external locus of control tend to blame others or external factors. Understanding locus of control is crucial because it impacts a person's ability to accept challenges and show persistence, which are important for students with hearing loss for learning.

According to Rotter's theory of social learning, it is important to consider how a subject interacts with their surroundings, personality traits, and individual features. Risk factors such as psychological difficulties and poor academic performance can contribute to school failures in students with hearing impairment. However, some students with hearing impairment can prosper academically and socially in spite of unfavorable circumstances which define the notion of resilience. Cassidy (2016) has suggested that students with an internal locus of control tend to perform better academically because they take responsibility for their academic performance and pay close attention to details.

Study habit is another factor in determining academic resilience, and it is characterised by a student's attitude towards learning and how they manage their time. Despite the importance of study habits in academic resilience, educational institutions have paid little attention to this factor. Highly performing students tend to have good study habits, such as planning their study sessions, setting specific goals, and avoiding procrastination.

Although some students with hearing impairment demonstrate academic resilience and succeed undeterred by the challenges of their hearing impairment, understanding these determinants on academic resilience among post-secondary students with hearing impairment is essential for promoting their academic success and well-being. Limited research has been conducted on these determinants of academic resilience among post-secondary students with hearing impairment, so this topic is of significant importance in exploring the factors that promote academic resilience among this population. The study investigated some determinants of academic resilience among post-secondary students with hearing impairment, with a focus on the role of social support, learning self-efficacy, study habit and locus of control. The findings of this study would provide insights into the factors that promote academic resilience among students with hearing impairment and inform the development of interventions to enhance their academic success and well-being.

The purpose of this study is to explore some factors that predict academic resilience among students with hearing impairments who are attending post-secondary school in Oyo

State, Nigeria. Specifically, the study intends to examine learning self-efficacy, social support, locus of control, and study habits, on the academic resilience of these students. The study also investigated the relationships between these variables and academic resilience among the students.

To provide direction for the study, the researchers posed the following research questions. First, do the independent variables (social support, locus of control, study habits, and learning self-efficacy) correlates with the dependent variable (academic resilience)? Second, what is the joint contribution of the independent variables on the dependent variable? Finally, to what extent do the independent variables contributed to the dependent variable?

The research design utilised was the descriptive survey of the correlational type. This type of research investigates the connection between variables, as the researcher had no intention of changing any of the variables under investigation (independent variables - learning self-efficacy, social support, locus of control, and study habits; dependent variable - academic resilience).

The study was conducted in post-secondary schools that enroll students with hearing impairment in Oyo state, Nigeria. The study included a total of eighty-nine students, with four students from the Distance Learning Center of The University of Ibadan in Ibadan, one student from the Federal School of Statistics in Ibadan, two students from the Federal School of Survey in Oyo, and eighty-two students from the Federal College of Education (Special) in Oyo, all in Oyo State of Nigeria. The sampling technique used was purposive sampling, which involved deliberately selecting post-secondary schools due to the unique nature of the participants. This study utilised several research instruments to collect data, including the Learning Self-efficacy Scale, Brief Perceived Social Support Questionnaire, Locus of Control of Behaviour Scale, Study-Habit Inventory, and Academic Resilience Scale (ARS-30).

The learning Self-efficacy Scale used was that of Zimmerman and Kulikowich (2016), which consists of 22 items. The researchers used this scale to survey students aged 18-70, who were studying various subjects on 18 different campuses. The scale's reliability was evaluated using Cronbach's alphas, and the exploratory factor analysis showed that the three factors were interrelated and explained 55.9% of the total variance. The Brief Perceived Social Support Questionnaire is a 6-item measure developed to assess individual differences in social support at a general level, and the Locus of Control of Behaviour Scale was used to measure the internal and external locus of control used on Italian university students. The Study-Habit Inventory, adapted from Gilbert Wrenn (1933) and others, helps identify learning skills in areas such as time management, concentration, note-taking, reading comprehension, test preparation and test-taking, reading speed, writing skills, and test anxiety management. The Academic Resilience Scale was developed to measure students' responses to risk factors in academic contexts. The scale was piloted on undergraduate students from a British University and was found to have three factors: perseverance, reflection and adaptive help-seeking, and negative affect and emotional response. The scale's reliability was evaluated using Cronbach's alphas, and a three-factor model of the resilience scale was supported in another validation study conducted on a

sample of undergraduate university students in the United States

Prior to data collection, the researcher visited the chosen school to obtain permission and cooperation from school authorities, staff, and students who were identified as the respondents for this study, with a specific focus on those with hearing impairments. The researcher provided clear instructions and guidance on how to complete the questionnaire to ensure that each respondent provided accurate and relevant information to the best of their ability. The data collected in the study was analysed using two statistical methods, namely the Pearson product moment correlation (PPMC) and Multiple regression analysis (MRA), with a significance level of 0.05. The PPMC was utilised to determine the correlation between the dependent variable and the independent variables. The MRA was used to determine joint and relative contributions of the independent variables on the dependent variable.

## Results

The first research question aimed to investigate whether there are any connections between the independent variables (social support, locus of control, study habit, and learning self-efficacy) and the dependent variable (academic resilience) among post-secondary students with hearing impairment (HI) in Oyo State, Nigeria. The findings revealed the correlations among the independent variables and the dependent variable. The result shows the mean, standard deviation, and zero-order correlation among the variables.

**Table 1:** Summary of Test of significant correlations among independent and dependent variables (cumulative grade point average) of the respondents

Variables	1	2	3	4	5
Academic resilience	1.000				
Learning self-efficacy	.247*	1.000			
Locus of control	.274*	0.175*	1.000		
Study habit	-.310**	-.020	0.362**	1.000	
Social-support	.362**	.077	0.408**	.277*	1.000
Mean	100.83	73.5	71.85	106.14	22.98
Standard deviation	8.24	11.47	14.53	26.88	3.87

\*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

The second question raised aimed to investigate joint contribution of the independent variables on the dependent variable. The result demonstrates that the independent variables (social support, locus of control, study habits, and learning self-efficacy) contributed to the academic resilience of post-secondary school students with hearing impairments in Oyo

state, Nigeria ( $R = 0.641$ ,  $p < .05$ ). Additionally, the results indicate that 38% (Adj.  $R^2 = 0.380$ ) of the variation in academic resilience among these students can be attributed to the variances.

**Table 2:** Joint Effect of the Independent variables on Dependent Variable

Model	R	R Square	Adj. R Square	Std Error of the Estimate	
1	0.641	0.411	0.380	6.48864	
<b>ANOVA</b>	<b>Sum of Square</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>P</b>
Regression	2207.862	4	551.966	13.110	0.000
Residual	3157.688	75	42.103		
Total	5365.550	79			

The third research question aim to investigate the effect of relative contribution the independent variables on the dependent variable. The findings indicate that all four independent variables contributed to the academic resilience of post-secondary school students with hearing impairment in Oyo state, Nigeria. These variables are: learning self-efficacy ( $\beta = 0.160$ ,  $t = 1.767$ ,  $p < 0.05$ ), locus of control ( $\beta = 0.277$ ,  $t = 2.697$ ,  $p < 0.05$ ), study habits ( $\beta = -0.512$ ,  $t = 5.304$ ,  $p < 0.05$ ), and social-support ( $\beta = 0.379$ ,  $t = 3.857$ ,  $p < 0.05$ ).

**Table 3:** Relative effect of the independent variables on the dependent variable

Model	B	Std.Error	Beta	T	Sig
Constant	79.258	6.533		12.132	0.000
Learning self-efficacy	0.115	0.065	0.160	1.767	0.081
Locus of control	0.157	0.058	0.277	2.697	0.009
Study habit	-0.157	0.030	-0.512	5.304	0.000
Social-support	0.805	0.209	0.379	3.857	0.000

The results demonstrate that social support was the most significant contributor to students' academic resilience, followed by study habits, then locus of control, and finally learning self-efficacy, in that order among the predictor variables.

## Discussion

The study found that all the variables examined: learning self-efficacy, study habit, locus of control, and social-support, contributed to the academic resilience of post-secondary school students. The study examined the relationship between learning self-efficacy, study habit, locus of control, social support, and academic resilience among students with hearing

impairments (HI) in post-secondary schools in Oyo State, Nigeria. A non-probability sampling method was used to select eighty-nine students with hearing impairment from various post-secondary schools. The data was collected using different tools such as the Learning Self-Efficacy Scale, Brief Perceived Social Support Questionnaire, Locus of Control of Behavioral Scale, Study-Habit Inventory, and the Academic Resilience Scale.

The results of the study revealed a significant correlation between learning self-efficacy, study habit, locus of control, social support, and academic resilience among students with hearing impairment. The researchers also found that social support, study habit, locus of control, and learning self-efficacy significantly predicted academic resilience among post-secondary school students with hearing impairment in Oyo State, Nigeria. This corroborates findings by Abolmaali and Mahmudi (2013), they also found that these variables contributed to academic resilience which is a predictor of academic achievement.

The findings of the study suggest that social support, study habit, locus of control, and online self-efficacy are significant factors that contribute to the academic resilience of students with hearing impairments. A good social support network can enhance the academic resilience of students with hearing impairment by providing them with supportive behaviors from individuals in their social network such as parents, teachers, classmates, friends, and the academic community. Good study habits are also important for academic success and resilience. Students with hearing impairment who have a positive attitude towards learning and manage their time effectively are more likely to be academically resilient. Similarly, an internal locus of control enables students with hearing impairment to make corrections quickly and bounce back from mistakes, leading to increased academic resilience. Wagnlid and Collins (2009) found similar results in a study where they looked at the relationship between these variables and academic resilience as determinants of academic success in an international sample.

These findings have implications for the fields of hearing loss, special education, and educational psychology, and can be applied to improve the teaching and learning of students with hearing impairment. Students who are self-efficacious, success-oriented, optimistic, and have a strong sense of belief in their abilities are more likely to be academically resilient as opined by Wagnlid and Collins (2009).

In conclusion, the study explored the relationship between determinants such as social support, study habit, locus of control, and learning self-efficacy and academic resilience in post-secondary school students with hearing impairment in Oyo State, Nigeria. The findings indicated that all the variables examined had a joint contribution in predicting academic resilience of students with hearing impairment. Also, the results highlighted the significance of the factors in enhancing academic resilience among students with hearing impairment.

## **Contributions**

The study has contributed to the body of existing literature as it revealed that social support, study habit, locus of control, and learning self-efficacy, play an important role in predicting academic resilience in students with hearing impairment.

The study also contributed to the field of Special education, counseling psychology, and psychotherapy as it plays key roles in equipping specialists in this area to encourage hearing impaired students to assume responsibility for their actions rather than attribute their life challenges to external factors rather than introspecting as this may undermine academic resilience.

### **Recommendations**

1. Counseling psychologists should consider these variables (social support, study habits, locus of control, and learning self-efficacy) to address issues related to academic resilience.
2. Promoting essential support from parents and significant others is crucial for students with hearing impairments (HI). Encouraging these students to prioritise their happiness and to cultivate strong academic resilience is important. Parents and teachers should guide them to overlook negative feedback or stigmatisation from peers, teachers, or parents.
3. Future research can examine the effects of interventions, such as peer mentoring or counseling sessions, on enhancing academic resilience in students with hearing impairment. Exploring the interactions between these interventions and previously identified factors would provide valuable insights.
4. The findings suggest that exploring academic resilience and grit as human characteristics through experimentation is warranted. In the highly competitive and stressful academic environment, fostering these traits not only improves academic success but also acts as a protective factor for mental health, reducing the vulnerability to issues like mental breakdowns, fear of failure, and attrition.
5. Future research should investigate the adaptability of academic resilience and its teachability or enhancement in students. The focus should be on mediating study habits, locus of control, learning self-efficacy, and social support based on the current findings.
6. Finally, future studies could also consider using mixed-method approaches that combine qualitative and quantitative methods to gain a more comprehensive understanding of the experiences and perspectives of students with hearing impairment regarding academic resilience.

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