

Investigating Vocational Goals of Tertiary-Level Students with Hearing Impairment in Calabar, Nigeria

James Daniel Daniel, Judith Ari-Tano Tawo-Oben Agbor, Sarah Okpa Josiah, Eyo, Ekei Effiong, Dijeh Ann Emani, Michael Obun Etan, Omubo, Ruth Fingite, Okute, Agnes Lawrence, Ushie, Christiana Aloye, Awah Catherine Icheni Andorshiye, Undie, Joseph Bekeh, Stephanie Sedoo Bishie-Unung, Runyi Daniel James, Nkwam Glory Atierum, Eja Eja Iwara

University of Calabar, Nigeria

Abstract

This study investigated the vocational goals of tertiary-level students with hearing impairments in Calabar, Nigeria, using an ex post facto research design. Specifically, it examines the influence of emotional, social, academic, and physical self-concepts on students' career aspirations. Data were collected from 90 students in the Department of Special Education, University of Calabar, through structured surveys and interviews. Four hypotheses were tested using descriptive and inferential statistical analyses. The findings revealed that emotional self-concept significantly influenced vocational goals ($\bar{X} = 23.63$; $F = 3.231$, $p < .05$). Social and academic self-concepts also significantly influenced students' vocational aspirations, highlighting their critical role in the career development of students with hearing impairments. The study concluded that these students encountered multiple academic and vocational challenges that may have limited their career outcomes. Therefore, it recommends the provision of specialized vocational training programs, increased access to sign language interpreters, and stronger collaboration among educational institutions, industries, and parents to support effective vocational development for students with special needs.

Keywords: Vocational goal, hearing impairment, tertiary institution, students, training

Introduction

Vocational aspirations play a decisive role in shaping the future independence, employability, and social inclusion of tertiary-level students with hearing impairments; however, their career pathways remain insufficiently examined in empirical research. As higher education systems increasingly prioritize employability and workforce relevance, understanding how students with hearing impairments form and pursue vocational goals has become essential. Although inclusive education has gained global attention, persistent inequalities continue to limit the extent to which students can translate educational participation into meaningful career outcomes.

Vocational goals constitute a critical dimension of educational and career development for students with hearing impairments across all educational levels. Equitable access to quality learning environments, assistive technologies, and supportive institutional structures is fundamental to ensuring outcomes comparable to those of students without disabilities (Saad et al., 2023). However, evidence shows that many students with hearing impairments continue to face discrimination, social exclusion, communication barriers, and inadequate access to hearing aids and related support services, all of which constrain their vocational development (Alit et al., 2025). Research highlights the importance of self-advocacy, inclusive pedagogical practices,

institutional support, and assistive technologies in shaping positive vocational aspirations (Bolshakov & Walker, 2023). Despite progress in developed regions, particularly in Europe (Van Huis, 2025), gaps in sign language interpretation, captioning, and teacher preparedness persist and continue to undermine academic performance and career readiness (Heilmann et al., 2024).

These challenges are more pronounced in developing contexts, especially in Africa, where students with hearing impairments frequently experience entrenched neglect, weak policy implementation, and limited access to inclusive resources in tertiary institutions (Wuraola et al., 2023). In Nigeria, barriers such as inadequate assistive technologies, underprepared teachers, and cultural biases further undermine students' academic performance and vocational aspirations (Magaji et al., 2023). While vocational skills, supportive educational systems, and family involvement are known to influence career development (Bandura et al., 2001; Lent et al., 2002; Kim, 2014), empirical evidence at the institutional level remains limited. Against this backdrop, this study examines how emotional, social, academic, and physical self-concepts influence the vocational goals of students with hearing impairments at the University of Calabar, with the aim of informing career guidance, counseling, and inclusive educational planning.

Literature review

Vocational goals refer to the career-related aspirations and objectives that individuals set for themselves, reflecting their desired professional paths, achievements, and contributions to society (Kim, 2014; Lent et al., 2002). These goals are shaped by personal interests, abilities, values, and self-concept, as well as social, cultural, and environmental influences (Bandura et al., 2001; Patton & McMahon, 2014). Vocational goals are particularly significant for students with hearing impairments because they guide educational choices, skill development, and long-term career planning, often in the face of unique barriers such as communication challenges, limited access to

resources, and societal biases (Heilmann et al., 2024). Conceptually, vocational goals serve as both motivational and regulatory constructs, providing direction, fostering persistence, and influencing decision-making processes that enable individuals to achieve meaningful and fulfilling careers (Lent et al., 2002). They are central to educational and career guidance frameworks, as understanding students' vocational goals helps educators, counselors, and policymakers design interventions that enhance self-efficacy, promote inclusivity, and support the realization of career aspirations (Bolshakov & Walker, 2023; Patton & McMahon, 2014). There is a strong correlation between academic self-concept and students' determination to overcome academic obstacles (Othman & Leng, 2011). For students with hearing impairments, confidence often requires additional support, motivation, and enhancement to foster academic excellence (Sunu & Baidoo-Anu, 2024). Self-concept is a broad construct that encompasses how individuals perceive and evaluate themselves beyond academics, including their physical, psychological, and social identity. These dimensions form the foundation of an individual's sense of worth and identity (Birni & Eryilmaz, 2024). As a complex construct, self-concept has significant implications for behavior, cognition, and emotion across nearly all life domains. Emotional self-concept refers to how individuals perceive, interpret, and manage their emotional experiences. It involves emotional intelligence, stability, and the ability to effectively regulate and express emotions. This dimension plays an essential role in how people connect emotionally with others and evaluate their overall sense of self (Lent et al., 2002). Similarly, social self-concept refers to how individuals perceive their place and acceptance within social groups, influencing their interpersonal behaviors, relationships, and sense of belonging (Cuadros & Berger, 2023). Together, these self-concepts are particularly critical for students with hearing impairments, who often face challenges in communication and social inclusion (Patton & McMahon, 2014).

In Nigeria, a study investigated whether self-concept influences academic achievement among students with hearing impairments in a conventional university setting in Ilorin (Akanni, 2009). Using purposive sampling, hearing-impaired students were compared with auditory learners selected through systematic random sampling. As part of the study, Akanni organized a “talk shop” that facilitated discussions between hearing and hearing-impaired students about their perceptions of each other. Insights from this exercise highlighted the importance of academic self-concept, which refers to students’ beliefs in their competencies, potential, and classroom capabilities. Academic self-concept strongly influences motivation, learning outcomes, achievements, and overall well-being (Vaknin-Nusbaum & Tuckwiller, 2023). For students with hearing impairments, academic self-concept is shaped by communication mode (oral versus sign language) and the educational environment, whether mainstream, special education, or residential (Asogwa et al., 2020). Students with strong spoken communication skills often demonstrate more favorable academic self-concepts because they perceive themselves as competent. Classroom conditions and supportive educators play vital roles in fostering positive academic identities (Sutiyono et al., 2023).

Indeed, research consistently shows that higher academic self-concept is positively correlated with better academic performance among hearing-impaired students (Cuizon, 2024).

Emotional self-concept also influences academic success. Students who can regulate their emotions, maintain positive self-worth, and build supportive relationships tend to perform better in school. However, hearing-impaired students often face communication difficulties and misunderstandings, which can negatively affect their emotional well-being and academic achievement (Andrews & Jordan, 2004). A positive emotional self-concept, in which students validate and respond constructively to their own emotions, is associated with stronger socio-emotional development, improved classroom partic-

ipation, and increased engagement in extracurricular activities (Cuadros & Berger, 2023). Social self-concept also plays an important role in shaping students’ identities and integration. For students with hearing impairments, social identity is influenced by communication challenges, friendship, and societal attitudes (Falk & Sansour, 2024). Friendships and a sense of belonging help heal fragile social identities, fostering resilience and improving social outcomes. In contrast, physical self-concept refers to how individuals perceive and evaluate their bodies, health, and physical abilities (Vega Díaz et al., 2023).

In Europe and North America, governments and universities have implemented policies that promote equality, access to assistive technologies, and accommodations, such as captioning, sign language interpretation, and specialized counseling services (Heilmann et al., 2024; Jarbi, 2024). These measures recognize education as a key pathway to social mobility and career development for people with disabilities (Patton & McMahon, 2014). However, challenges such as societal stigma, inadequate teacher training, and inconsistent policy implementation persist (Scherer et al., 2024). In contrast, students with hearing impairments in Africa face more severe obstacles. They are often subjected to systemic exclusion, inadequate educational resources, and cultural stigmatization (Asogwa et al., 2020; Wuraola et al., 2023). Limited access to assistive technologies, a shortage of trained educators, and financial constraints further hinder academic progress and restrict opportunities for higher education (Bolshakov & Walker, 2023). While initiatives such as specialized vocational training centers and NGO interventions have expanded career pathways for students with disabilities, these efforts remain fragmented and largely unsustainable because of weak policy support and insufficient funding (Heilmann et al., 2024). In Nigeria, the existing literature underscores a mixture of progress and ongoing challenges. Despite government commitments to inclusive education, students with hearing impairments often face barriers such as inadequate teacher

training, poor infrastructure, and limited policy implementation (Magaji et al., 2023). Vocational education is a strong driver of academic specialization and career aspirations, with many students expressing passion for technical and vocational education and training programs. At the same time, family and community support strongly shape students' career goals, as supportive environments foster resilience and confidence. Recent studies have further highlighted the influence of cultural identity, assistive technology, and advocacy skills in shaping the career trajectories of hearing-impaired students in Nigeria (Babu, 2024; Bello & Abdallah, 2024).

Despite growing insights into the educational and vocational experiences of students with hearing impairments, empirical research on tertiary institutions in Nigeria, particularly the University of Calabar, is limited. Most existing studies generalize their findings across the country or focus on primary and secondary education (Asogwa et al., 2020; Sunu & Baidoo-Anu, 2024). This gap underscores the need for localized research that accounts for the unique cultural, institutional and infrastructural contexts of Nigerian universities (Patton & McMahon, 2014). Conducting context-specific investigations is essential for developing policies and support systems that effectively enhance the vocational goals and career prospects of students with hearing impairment. The literature collectively suggests that the vocational goals of students with hearing impairments are shaped by a complex interplay of academic, emotional, social, and physical self-concepts, as well as institutional policies, family support, and broader cultural perceptions (Birni & Eryilmaz, 2024; Cuadros & Berger, 2023; Lent et al., 2002). Although developed countries have made significant progress in implementing inclusive educational practices supported by comprehensive policy frameworks and assistive technologies (Heilmann et al., 2024; Jarbi, 2024), African nations, including Nigeria, continue to confront systemic challenges that constrain progress (Scherer et al., 2024; Wuraola et al., 2023). The paucity of localized research in

Nigerian tertiary settings underscores the urgent need for studies that can inform evidence-based interventions. Therefore, this study sought to fill this gap by investigating the vocational goals of students with hearing impairments at the University of Calabar in Nigeria.

Conceptual Framework and Literature Review

Social Cognitive Career Theory (SCCT)

Social Cognitive Career Theory was propounded by Lent et al. (2002), drawing largely from Bandura's Social Cognitive Theory. The theory was developed to explain how individuals form career interests, make career-related choices, and achieve varying levels of performance and persistence in their educational and occupational pursuits. Social Cognitive Career Theory emphasizes the interaction between personal characteristics, environmental influences, and behavior in shaping career development.

Social Cognitive Career Theory is based on several key assumptions. It assumes that individuals are active agents in their career development rather than passive recipients of environmental influences. People interpret their experiences and use these interpretations to guide their career decisions. The theory further assumes that self-efficacy beliefs, defined as individuals' judgments about their ability to perform specific tasks, play a central role in career behavior. These beliefs influence the activities individuals choose, the effort they invest, and their persistence in the face of challenges. Similarly, the theory assumes that outcome expectations, defined as beliefs about the likely consequences of engaging in particular behaviors, influence career interests and goals. When individuals expect positive outcomes from a career path, they are more likely to pursue it. The theory also recognizes the importance of personal goals as motivational tools that help individuals organize and sustain their actions over time. The theory assumes that contextual factors, such as social support, available resources, and perceived

barriers, interact with personal attributes to either facilitate or hinder career development.

Despite its broad application and empirical support, Social Cognitive Career Theory has received some criticism. One critique is that the theory can be complex and difficult to operationalize because it involves many interrelated variables, including self-efficacy, outcome expectations, contextual support, and barriers. Simultaneously measuring all these variables can be challenging for researchers. Moreover, the theory places a strong emphasis on cognitive processes and may underrepresent emotional, cultural, or unconscious influences on career decision-making. In addition, some scholars argue that although the theory acknowledges environmental factors, it may not fully address broader structural constraints such as socio-economic limitations, institutional inequalities, or systemic discrimination, especially in developing contexts. Nevertheless, these limitations do not undermine the usefulness of the theory but suggest the need for contextual adaptation.

However, Social Cognitive Career Theory fits this study because it provides a clear explanation of how different dimensions of self-concept influence career goals and aspirations. In this study, emotional, social, academic, and physical self-concepts were treated as personal belief systems that shape students' confidence, expectations, and goal-setting behavior. Emotional self-concept influences how students manage stress, setbacks, and motivation, which, in turn, affects their confidence in pursuing specific career goals. Social self-concept relates to students' perceptions of social acceptance and support, which can enhance or limit their career choices through encouragement, role modeling, and social expectations. Academic self-concept reflects students' beliefs about their academic abilities, which directly affect their self-efficacy, performance expectations, and the level of career goals they set for themselves. Physical self-concept influences how students perceive their physical abilities and appearance, which may shape their expectations and aspirations,

particularly in careers where physical attributes are considered important. The theory provides a coherent and appropriate framework for understanding and interpreting the relationships examined in this study.

Methodology

This study adopted an *ex post facto* research design, a non-experimental approach appropriate for investigating phenomena that have already occurred and cannot be manipulated or controlled by researchers. This design is particularly suitable when random assignment of participants or direct manipulation of independent variables is not feasible and when the variables of interest have occurred naturally. As Goodman-Scott et al. (2022) noted, *ex post facto* designs enable researchers to examine existing conditions and explore possible relationships among variables without any form of researcher interference.

The study was conducted in Calabar, a major urban center in Cross River State, Nigeria, with the University of Calabar serving as the institutional setting for the research, specifically within the Special Education Unit of the Faculty of Education, which provides specialized academic training and support services for students with hearing impairment and related learning needs. The study population comprised ninety (90) hearing-impaired students enrolled in the Department of Special Education, Faculty of Education, University of Calabar, who were deemed suitable for participation because they possessed characteristics directly relevant to the research objectives and were therefore capable of providing valid and reliable data required for meaningful analysis and interpretation of the study findings.

Formal permission to conduct the study was obtained by the researcher through a written application to the Head of the Department, whose approval and letter of introduction facilitated access to the research setting and the commencement of data collection. The questionnaire, the principal instrument for data

collection, was administered to the students in the department. The researcher administered the questionnaire with the assistance of a trained research assistant who served as a sign language interpreter, thereby ensuring effective communication with hearing-impaired participants. A self-administered questionnaire approach was adopted, and all completed questionnaires were retrieved by the researcher to ensure a high response rate. To establish the reliability of the questionnaire, two key variables were examined: self-concept as the dependent variable and vocational goals as the independent variable. The instrument's reliability was evaluated using Cronbach's alpha with a pilot sample of ten respondents from the Department of Special Education. Although the pilot participants differed from the main study sample, both groups shared similar characteristics, a strategy adopted to reduce the potential influence of test-wise. The questionnaires were administered and retrieved on the same day. Analysis of the completed responses yielded reliability coefficients of 0.89 for the Vocational Aim Rating Scale and 0.92 for the Self-Concept Questionnaire, indicating strong internal consistency and confirming the instrument's suitability for measuring the intended constructs. The questionnaire was developed in collaboration with the Chair of the Department of Special Education, a specialist in measurement and evaluation, and was subjected to thorough validation. All participants demonstrated the ability to comprehend and respond appropriately to the questionnaire items.

Two sets of structured questionnaires were employed for data collection in the field. The first section comprised the Self-Concept Questionnaire (SCQ), and the second focused on vocational goals. The study examined four independent variables, namely academic, emotional, social, and physical self-concepts, while vocational goals served as the dependent variable. Responses were measured using a four-point Likert scale ranging from Strongly Agree (SA) to Strongly Disagree (SD). A sign language interpreter provided assistance throughout the process to ensure effective administration.

Ethical approval for the study was obtained from the University of Calabar and further endorsed by the Department of Special Education, and all respondents provided written informed consent prior to participation

Four hypotheses were formulated and tested using Analysis of Variance (ANOVA). The first hypothesis stated that there is no significant difference in the career goals of students with hearing impairments based on their emotional self-concept in the study area. The second hypothesis proposed that there is no significant difference in the career aspirations of students with hearing impairments based on their social self-concept in the study area. The third hypothesis asserted that there is no significant difference in the career goals of students with hearing impairments based on their academic self-concept in the study area. The fourth hypothesis suggested that there is no significant difference in the career aspirations of students with hearing impairments based on their physical self-concept in the study area.

Analysis of Variance (ANOVA) was used to analyze the data and the stated hypotheses for this study because it helps examine differences in mean scores among three or more variables under investigation. Moreover, it focuses on the differences in mean scores across groups defined by self-concept levels. Each hypothesis was tested at the 0.05 significance level, and all data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 20.0.

Result and Discussions

The analysis of the findings involved examining the results obtained from various statistical analyses. Nonetheless, this discussion is based on the specified hypotheses.

The impact of emotional self-concept on career Goals

The information presented in Tables 1 and 2 shows that students with hearing impairments who had a strong emotional self-concept recorded a higher mean vocational goal score (\bar{X}

= 23.63) than those with moderate ($\bar{X} = 22.38$) or low ($\bar{X} = 20.13$) emotional self-concepts. To test the stated hypothesis, a one-way analysis of variance (ANOVA) was conducted to examine the differences in vocational goals across different levels of emotional self-concept. The results revealed statistically significant differences among the groups ($F = 3.231$, $p < .05$). The obtained significance value ($p = .037$), which is below the 0.05 threshold, indicates that emotional self-concept meaningfully influences students' vocational goals. Consequently, the null hypothesis, which stated that emotional self-concept has no significant effect

on the vocational goals of students with hearing impairments, was rejected. Further analysis using Fisher's protected t-test confirmed these differences in the results. The post hoc results showed that students with high emotional self-concept differed significantly from those with lower levels ($t = 3.66$, $p < .05$), and significant differences were also observed between students with low and moderate emotional self-concepts ($t = 2.42$, $p < .05$). These findings demonstrate that students with stronger emotional self-concepts have higher and more clearly defined vocational goals than their peers.

Table 1: An analysis of variance was conducted to examine the impact of emotional self-concept on career goals.

Variables	N	Mean	Std. Deviation		
High	43	23.5759	3.00678		
Moderate	26	22.3953	3.06185		
Low	21	20.1439	3.07260		
Total	90	22.2111	4.64587		
source of variation	SS	Df	Mean Square	F-ratio	p-level
Between Groups	139.793	2	69.897	3.241	.038
Within Groups	1721.197	87	20.473		
Total	1930.989	89			

Data Analysis 2024

Table 2: Fisher's protected T-test for the influence of emotional self-concept on career goals

variable	High (n=43)	Moderate (n=26)	Low (n=21)
High	23.64 ^a	1.19 ^b	3.43
Moderate	2.41 ^{*c}	22.38	2.25
Low	3.66 [*]	2.41 [*]	20.13
MS _{within} = 20.47			

Data Analysis 2024

Social Self-Concept and Career Goals

Table 3 presents the results of the hypothesis examining the influence of social self-concept on the career aspirations of students with hearing impairments. In this analysis, career aspiration served as the dependent variable, while social self-concept was the independent variable, categorized into high, moderate, and low levels. Social self-concept was measured using six questionnaire items rated on a four-point Likert scale ranging from Strongly Agree to Strongly

Disagree. Positively worded items were scored from 4 to 1, whereas negatively worded items were reverse-coded. The data were analyzed using SPSS version 20, and one-way analysis of variance (ANOVA) was employed to test the hypothesis. The results showed that students with a high social self-concept recorded higher mean scores ($\bar{X} = 24.33$ and $\bar{X} = 24.63$) than those with moderate ($\bar{X} = 22.18$; $\bar{X} = 23.17$) and low social self-concepts ($\bar{X} = 20.64$; $\bar{X} = 20.71$). These findings indicate that students who perceive themselves positively in social

interactions are more likely to have higher career aspirations. The results further underscore the importance of strengthening the social self-concept through improved peer relationships,

communication skills, and social integration to enhance the career development of students with hearing impairments.

Table 3: Analysis of variance of the influence of social self-concept and career goals

Variables	N	Mean	Std. Deviation
High	27	22.1762	3.58455
Moderate	32	23.7410	4.24241
Low	31	20.6452	2.75234
Total	90	22.2111	4.64687

source of variation	SS	Df	Mean Square	F-ratio	p-level
Between Groups	151.818	2	75.908	3.813	.028
Within Groups	1769.171	87	20.335		
Total	1920.989	89			

Data Analysis 2024

Table 4: Fisher's protected T-test for the influence of social self-concept on career goals

variable	High (n=27)	Moderate (n=32)	Low (n=31)
High	24.63 ^a	1.17 ^b	3.43
Moderate	2.12 ^{*c}	23.17	2.25
Low	2.71 *	3.70*	20.71
MS _{within}	20.33		

Data Analysis 2024

The Influence of Academic Self-Concept on Career Goals

The results for Hypothesis Three, presented in Table 5, highlight the significant role of academic self-concept in shaping the career aspirations of students with hearing impairments. Students with strong academic self-concepts recorded the highest mean score ($\bar{X} = 24.25$), compared to those with moderate ($\bar{X} = 23.31$) and low ($\bar{X} = 19.45$) self-concepts. A one-way analysis of variance (ANOVA) revealed that these differences were statistically significant ($F = 6.162$, $p = .004 < .05$). Consequently, the null hypothesis was rejected, confirming that academic self-concept significantly influenced career goals. Post hoc analysis using Fisher's protected t-test showed significant differences between students with high and low academic self-concepts ($t = 3.21$, $p < .05$), as well as between moderate and low levels ($t = 2.65$, $p <$

$.05$). These findings are consistent with those of previous studies. Mekonnen et al. (2016) reported that supportive learning strategies and interpreter services enhanced academic self-concept among hearing-impaired students in mainstream universities. In contrast, Akongyam et al. (2023) and Lasala (2024) found that a weaker academic self-concept limits performance and career skill acquisition. Similarly, Saad et al. (2023) observed that reading comprehension challenges constrain academic achievement and career development. Overall, the findings underscore the need for supportive learning environments, effective pedagogy, and vocational guidance to strengthen the career outcomes of students with hearing impairments.

Table 5: *Analyses of variance in the influence of academic self-concept on career goal*

Variable	N	Mean	Standard deviation		
High	22	24.25	2.67		
Moderate	56	23.31	3.07		
Low	12	1.4	3.11		
Total	90	22.21	4.64		
Source of variation	SS	Df	Mean Square	F-ratio	p-level
Between Groups	229.886	2	114.843	6.162	.004
Within Groups	1691.103	87	19.438		
Total	1920.989	89			

Data Analysis 2024

Table 6: *Fisher's protected T-test for the influence of academic self-concept on career goals*

variable	High (n=22)	Moderate (n=56)	Low (n=12)
High	24.26 ^a	0.93 ^b	3.91
Moderate	1.23 ^c	22.33	2.88
Low	3.21*	2.65*	18.46
MS _{within} =19.438			

Data Analysis 2024

Physical Self-Concept and Career Aspirations

This study examined the influence of physical self-concept on the career aspirations of students with hearing impairments. Physical self-concept, categorized as high, moderate, or low, was measured using six questionnaire items on a four-point Likert scale. Positively worded statements were scored from 4 ("Strongly Agree") to 1 ("Strongly Disagree"), whereas negatively framed items were reverse-coded. Data were analyzed using SPSS version 20.0, applying a one-way analysis of variance (ANOVA).

Findings revealed that students with strong physical self-concepts recorded the highest mean score ($X=26.07$), compared to those with moderate ($X=22.00$) and low ($X=20.52$) physical self-concepts. ANOVA results confirmed significant differences ($F=5.45$, $p<.05$), leading to the rejection of the null hypothesis. This indicates that the physical self-concept significantly affects the career aspirations of students with hearing impairments. Post hoc analysis further showed significant variations between

the high and low self-concept groups ($t=2.64$, $p<.05$) and between the moderate and low groups ($t=4.41$, $p<.05$).

These results highlight the critical role of the physical self-concept in shaping professional goals. Students with stronger self-perceptions are more likely to aspire to higher career achievements, while those with weaker self-concepts may limit their ambitions. These findings have important implications for practice. Educational institutions and government agencies should engage certified guidance counselors in schools for the deaf to help students develop positive self-concepts and career pathways. Policymakers should prioritize vocational training and skill acquisition programs that enhance employability. Through structured support and mentorship, special education teachers can further prepare students for workforce integration and long-term livelihood sustainability (Table 7).

Table 7: Analysis of variance of the influence of physical self-concept and career goals

Variables	N	Mean	Std. Deviation			
High	36	24.0833	4.72401			
Moderate	26	21.0000	3.87814			
Low	28	20.9286	2.63774			
Total	90	22.2111	4.64587			
Source of variation		SS	Df	Mean Square	F-ratio	p-level
Between Groups		210.382	2	105.191	5.450	.006
Within Groups		1710.608	87	19.662		
Total		1920.989	89			

Data Analysis 2024

Table 8: Fisher's protected T-test for the influence of physical self-concept on career goals

variable	High (n=36)	Moderate (n=26)	Low (n=28)
High	26.07 ^a	3.08 ^b	3.16
Moderate	2.64* ^c	22.00	0.08
Low	4.41 *	1.11	20.92
MS _{within} =19.66			

Data Analysis 2024

Conclusion

This study was conducted in the Department of Special Education at the University of Calabar, Nigeria. This study investigated the influence of emotional, social, academic, and physical self-concepts on the vocational goals of students with hearing impairments. Recognizing that self-perceptions shape motivation, decision-making, and career aspirations, this research examined how variations in these dimensions affect students' professional ambitions. The findings revealed that all four dimensions of self-concept significantly influenced the vocational goals of students with hearing impairments. Students with stronger emotional, social, academic, and physical self-concepts have higher career aspirations than those with moderate or low self-concepts. These results highlight the importance

of fostering emotional confidence, social competence, academic support, and positive self-perception. Universities should provide counseling, mentorship, and vocational training, while policies promoting peer interaction and skill development can enhance career motivation and long-term professional outcomes. These findings provide valuable insights into the understanding of self-concept and vocational development among students with hearing impairments.

These findings underscore the critical role of self-concept in shaping vocational goals, highlighting the need for targeted interventions and supportive educational policies to improve the career outcomes of students with hearing impairments.

References

- Akanni, O. O. (2009). *Assessment and remediation of some perceived difficult concepts in Mathematics among selected senior secondary school students in Lagos, Nigeria* (Doctoral dissertation, University of Lagos (Nigeria)).
- Akongyam, M., Douglas, F., Owusu, M. K., De-Heer, W., & Xorsenyo, A. (2023). Pedagogical competencies of teachers applied to teaching learners with hearing difficulties. *American Journal of Education and Learning*, 8(2), 138-151. <https://doi.org/10.55284/ajel.v8i2.958>
- Alit, N. A., Ellias, M. S., & Ahmad, A. D. (2025). Technology application in teaching and learning for hearing impaired students: A recent systematic review. *International Journal of Education, Psychology and Counseling*, 10(58), 541-561. <https://doi.org/10.35631/ijepc.1058036>
- Asogwa, U. D., Ofoegbu, T. O., Eseadi, C., Ogbonna, C. S., Eskay, M., Nji, G. C., & Onah, B. I. (2020). The effect of a video-guided educational technology intervention on the academic self-concept of adolescent students with hearing impairment: Implications for physical education. *Medicine*, 99(30), e21054. <https://doi.org/10.1097/md.00000000000021054>
- Babu, S. (2024). Significance of intra-personal intelligence and academic self-concept as predictors of metacognition. *International Journal of Studies in Psychology*, 4(1), 46-54. <https://doi.org/10.38140/ijpspsy.v4i1.1077>
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child development*, 72(1), 187-206.
- Bello, A., & Abdallah, S. M. S. (2024). Exploration of Teachers Perception on their Roles in Career Guidance among Secondary Schools Students Career Choices. *Journal of Education, Society and Behavioural Science*, 37(4), 44-55. <https://doi.org/10.9734/jesbs/2024/v37i41317>
- Birni, G., & Eryılmaz, A. (2024). Conceptual and Theoretical Review of Self-Worth. *Psikiyatride Güncel Yaklaşımlar*, 16(2), 327-346. <https://doi.org/10.18863/pgy.1336880>
- Bolshakov, N., & Walker, C. (2023). Deaf youth in contemporary Russia: barriers to inclusion in education and the labour market. *Europe-Asia Studies*, 75(2), 186-207. <https://doi.org/10.1080/09668136.2022.2115014>
- Cuadros, O., & Berger, C. (2023). Self-disclosure, self-concept, and friendship's perceived functions among aggressive and popular adolescents. *Youth & Society*, 55(8), 1415-1437. <https://doi.org/10.1177/0044118x221093394>
- Cuizon, A. L. (2024). HUGPONG: Teaching as a Team in the Social Sciences (A Collaborative Strategy for Virtual Classroom Innovation). *Recoletos Multidisciplinary Research Journal*, 12(1), 57-71. <https://doi.org/10.32871/rmrj2412.01.05>
- Falk, K., & Sansour, T. (2024). Self-Concept and Achievement in Individuals with Intellectual Disabilities. *Disabilities*, 4(2), 348-367. <https://doi.org/10.3390/disabilities4020023>
- Goodman-Scott, E., McMahon, G., Kalkbrenner, M. T., Smith-Durkin, S., Patel, S., Czack, A., & Weeks, N. (2022). An Ex Post Facto Study Examining Implementation of Positive Behavioral Interventions and

- Supports Across School and Community Variables from an Inclusive Innovation Perspective. *Journal of Positive Behavior Interventions*, 24(4), 255-265. <https://doi.org/10.1177/10983007211013784>
- Heilmann, J. J., Bertone, A., & Wojtyna, A. (2024). How inclusive practice increases the educational relevance of Individualized Education Programs. *Language, Speech, and Hearing Services in Schools*, 55(2), 231-248. https://doi.org/10.1044/2023_lshss-23-00088
- Jarbi, Y. A. (2024). *Influence of Assistive Technologies on Visually Impaired Students' Experiences of Social Inclusion in Higher Education in Qatar* (Doctoral dissertation, University of Leicester).
- Kim, M. (2014). Family background, students' academic self-efficacy, and students' career and life success expectations. *International Journal for the Advancement of Counselling*, 36(4), 395-407.
- Lasala, N. J. (2024). Effects of Game-Based Activities on Student's Social Skills and Attitudes toward Learning Science. *Recoletos Multidisciplinary Research Journal*, 12(1), 181-194.
- Lent, R. W., Brown, S. D., & Hackett, G. (2002). Social cognitive career theory. *Career choice and development*, 4(1), 255-311.
- Magaji, Y. U., Awori, B. B., & M, M. J. (2023). Career aspirations as a predictor of academic achievement of learners with hearing impairment in special secondary schools in north eastern Nigeria. *International Journal of Science and Research Archive*, 9(2), 760-767. <https://doi.org/10.30574/ijrsra.2023.9.2.0664>
- Mekonnen, M., Hannu, S., Elina, L., & Matti, K. (2016). The self-concept of deaf/hard-of-hearing and hearing students. *Journal of deaf studies and deaf education*, 21(4), 345-351.
- Othman, N., & Leng, K. B. (2011). The relationship between self-concept, intrinsic motivation, self-determination and academic achievement among Chinese primary school students. *International Journal of Psychological Studies*, 3(1), 90.
- Patton, W., & McMahon, M. (2014). *Career development and systems theory: Connecting theory and practice* (Vol. 2). Springer.
- Saad, S., Jamberi, H., Musta'amal, A. H., Saud, S., Osman, S., & Hamzah, F. (2023). Factors Affecting the Level of Achieving Employability 4.0 of Hearing-Impaired Special Education Students. *Journal of Technical Education and Training*, 15(1), 215-233.
- Scherer, N., Banda-Chalwe, M., Chansa-Kabali, T., Nseibo, K., Seketi, Q. E., McKenzie, J., & Smythe, T. (2024). Disability research in Zambia: a scoping review. *Scandinavian Journal of Disability Research*, 26(1).
- Sunu, S., & Baidoo-Anu, D. (2024). Relationship between students' academic self-concept, intrinsic motivation, and academic performance. *International Journal of School & Educational Psychology*, 12(1), 41-53. <https://doi.org/10.1080/21683603.2023.2292033>
- Sutiyono, S., Suherman, S., & Burmansah, B. (2023). The Effect of Self-Concept and Self-Confidence on Students' Interpersonal Communication of Buddhist College. *Al Qalam: Jurnal Ilmiah Keagamaan dan Kemasyarakatan*, 17(6), 4117-4131. <https://doi.org/10.35931/aq.v17i6.2851>

- Vaknin-Nusbaum, V., & Tuckwiller, E. D. (2023). Reading motivation, well-being and reading achievement in second grade students. *Journal of Research in Reading, 46*(1), 64-85. <https://doi.org/10.1111/1467-9817.12414>
- Van Huis, R. (2025). Curriculum Accommodations, Modifications, and Differentiation Strategies: Equipping Teachers in Adapting Curriculum to Meet the Diverse Needs of All Learners. *Culminating Experience Projects* 614. <https://scholarworks.gvsu.edu/gradprojects/614>
- Vega-Díaz, M., Labra, C. D., & González-García, H. (2023). Perceived physical self-concept profiles: intention to be physically active and emotional regulation. *Behavioral Psychology/Psicología Conductual, 31*(1), 179-196. <https://doi.org/10.51668/bp.8323111n>
- Wuraola, A. M. B., Abiola, O. O., Ayoola, A. M., Folasade, R. B., Abolore, A. H., Akeem, B. O., Ganiyu, S. A., & Chandran, S. P. (2023). Pattern and Types of Disability among Students in Schools for Special Needs in Resource Limited Setting of Africa. *The Malaysian Journal of Nursing (MJN), 15*(1), 107-114.

Acknowledgement

The researcher extends heartfelt gratitude to the Department of Special Education at the University of Calabar and its staff for providing access to essential resources. Additionally, sincere appreciation goes to the respondents who generously shared their time and experiences.