

Factors Influencing the Academic Performance of Students with Dyslexia (A Case Study of Ibadan North Local Government, Nigeria)

^{1*}Oluwaseun O. Olalekan, ²Noah Olasehinde, ³Opeyemi O. Ogungbola

¹Department of Banking and Finance, the Polytechnic, Ibadan

²Department of Economics, University of Ibadan, Ibadan

³Institute of Public Health, College of Pharmacy and Pharmaceutical Sciences, Florida Agricultural & Mech University, 1505 S. Martin Luther King Jr Blvd, Tallahassee, FL 32307

³Department of Statistics, Federal University of Technology Akure, Ondo State

***Corresponding Author**

DOI: <https://doi.org/10.51584/IJRIAS.2025.100700001>

Received: 13 May 2025; Accepted: 20 May 2025; Published: 26 July 2025

ABSTRACT

Dyslexia is an intricate neurobiological disorder that impacts skills in reading, spelling and writing. The understanding and recognition of dyslexia are rooted in various perspectives and theories. Most times, focus is made on the exact nature of challenges experienced by the dyslexics instead of the weakening presumptions that led to the challenging experience. This study explores the factors influencing the academic performance of students with dyslexia in Ibadan North Local Government, Nigeria. The analysis uncovered a significant and unexpected negative relationship between household income and academic performance, suggesting that higher-income levels are associated with lower academic outcomes for students with dyslexia.

Additionally, the research revealed a positive association between student motivation and academic performance. Motivated students demonstrated better outcomes, highlighting the critical role of engagement, perseverance, and active participation in learning.

Overall, the study underscores the complex interplay of socioeconomic, motivational, and educator-related factors in shaping the academic outcomes of students with dyslexia. The findings highlight the need for targeted interventions, specialized support services, and evidence-based strategies to enhance educational outcomes for this population.

Keywords: Dyslexia, Academic performance, Household income, Motivation, Socio-Economic

INTRODUCTION

Dyslexia, a neurodevelopmental disorder, significantly impairs an individual's ability to read, write, and spell with accuracy and fluency (Shaywitz & Shaywitz, 2005). Often referred to as an "invisible impairment," dyslexia lacks observable physical characteristics, distinguishing it from other learning disabilities. While much attention has been given to the challenges faced by individuals with dyslexia, there is a need to shift focus toward addressing the systemic and societal factors that contribute to these challenges. A social model of disability frames dyslexia not as a deficiency but as a difference, emphasizing the importance of accommodating diverse cognitive profiles rather than forcing conformity to rigid societal norms (Cooper, 2006).

Dyslexia often co-occurs with other conditions, such as attention deficit hyperactivity disorder (ADHD), dyspraxia, and language disorders, further complicating the educational experiences of affected individuals (Hettiarachchi, 2021). These comorbidities underscore the need for targeted educational strategies and support systems to address the unique challenges posed by dyslexia. Despite these complexities, education remains a

critical avenue for empowerment, providing individuals with the tools needed for economic, psychological, and civic participation.

In Nigeria, educational policies, such as the Universal Basic Education (UBE) scheme, emphasize inclusive education and the integration of students with disabilities into mainstream schools (NERDC, 2004). However, the implementation of these policies often falls short, leaving students with dyslexia and other learning disabilities underserved. This study explores the factors influencing the academic performance of students with dyslexia in Ibadan North Local Government, Nigeria, with a specific focus on household income, socio-economic, educators' experience, and motivation. By examining these factors, the study seeks to contribute to a more nuanced understanding of dyslexia and inform strategies for creating an inclusive and supportive educational environment.

LITERATURE REVIEW

Dyslexia

The main conceptual issues related to the demand for schooling among students with dyslexia is the definition of dyslexia itself. Dyslexia is an intricate neurobiological disorder that impacts skills in reading, spelling and writing. The identification, classification, intervention, and awareness of dyslexia have sparked ongoing debates in academic circles, leading to diverse perspectives and opinions on this subject.

The phonological core impairment and ongoing spelling issues that characterise dyslexia set it apart from other learning problems. Dyslexia is a particular type of learning disability that has neurobiological underpinnings. It is characterised by issues with accurate and fluent word recognition as well as by weak spelling and decoding skills. As such, the academic performance of students with dyslexia may depend on the specific characteristics and needs of individual students (Roitsch and Watson, 2019).

Accessibility of support

Dyslexic students may require a range of arrangements to access and succeed in educational activities, such as extended time for exams, assistive technology, and specialised instruction (Rose et al, 2006). The availability and value of these services, however, might range greatly between areas and schools. Moreover, finding adaptations for dyslexic students may be difficult, time-consuming, and stigmatising, which may affect their academic performance because of the coexistence of dyslexia with other learning disorders, as well as the accessibility and efficacy of support services for people with dyslexia and co-occurring conditions. These conditions that can be considered comorbid in this context may include attention deficit hyperactivity disorder (ADHD), dyscalculia, dyspraxia and others. Understanding the comorbidity of dyslexia and the accessibility of support is crucial for providing comprehensive and effective interventions to individuals with multiple learning challenges.

What students need to know at a given grade level, the reading level expected for their developmental stage, and other traits the student has that will affect the success or failure of the intervention, such as language deficits, attention issues, and strong cognitive, creative, and verbal skills, are all factors in determining what interventions work best for students with dyslexia (Sharma et al, 2015).

Perceptions of academic ability and confidence

Dyslexic students may also face challenges related to their perceptions of academic ability and confidence. Dyslexia can impact a range of cognitive and socio-emotional factors, such as working memory, attention, and self-esteem (Shaywitz & Shaywitz, 2005). As such, dyslexic students may be more likely to perceive themselves as less competent or capable than their peers without dyslexia, which can impact their motivation and engagement in educational activities (Hennessy et al., 2015).

Several studies have found that dyslexic students may have lower levels of academic motivation than their peers without dyslexia (Siegel, 2006). Hennessy and colleagues (2015) found that dyslexic students had lower intrinsic

motivational level and were less likely to have a growth mindset, which is the belief that hard work and commitment can be nurtured based on one's intelligence and capabilities. In the same vein, in a study carried out by Sumner E. et al 2021 revealed that in comparison to non-SpLD students, students with dyslexia displayed lower academic confidence in their ability to achieve grades (based on the quality of writing work they can create) and study efficiently.

Social model of dyslexia

The social model places more emphasis on how societal and environmental variables shape the experiences and results of people with dyslexia than the medical model, which emphasises dyslexia as a person's innate and persistent cognitive deficiency. It makes the case that dyslexia is greatly influenced by the social and educational context in which the individual performs, rather than just being an inborn learning problem. From the point of view of the social model of disability, if society and education are made more accessible, many of the challenges faced by dyslexics could be overcome (Onyenachi, 2012). Likewise, dyslexic individuals are not a burden but rather an advantage to society, as dyslexia is not a disability but a unique potential.

Discussing the social model of dyslexia is crucial to understanding how societal attitudes, educational policies, and support systems influence the demand for education among students with dyslexia. This study takes on a social model proposition to understanding how it can influence the demand for schooling. By adopting the social model perspective, researchers and educators can develop more inclusive and empowering strategies to meet the educational needs of dyslexic students, ultimately enhancing their overall academic achievements.

Self-determination theory

The self-determination theory's central idea is an approach to human motivation and personality that makes use of traditional empirical techniques and an organismic metatheory that underlines the significance of humans' evolved inner resources for personality development and behavioural self-regulation. This framework emphasises the role of intrinsic motivation and psychological needs such as the needs for capability, connectivity and self-determination in human behavior and well-being (Ryan & Deci, 2000).

In a further review of their work, (Ryan and Deci, 2020) describes that self-determination theory (SDT) places its emphasis on people's inherent motivational propensities for learning and growing, and how they can be supported. From this perspective, dyslexic students can be influenced by their sense of autonomy, competence, and relatedness in educational settings as well as level of training and qualification of teachers that they are exposed to which in turn can lead to low motivation among low socioeconomic learners, negatively impacting their academic performance (Geduld, B. 2023).

Student Engagement and Motivation

Dyslexic students may experience challenges and frustrations in reading and writing tasks, which can affect their engagement and motivation to learn. Hennessy et al., (2015) in a research conducted on dyslexic college students, discovered that those students were more likely to be academically motivated and to have greater levels of self-esteem. Similarly, Siegel (2006) discovered that students who reported receiving more social support from peers and teachers had higher levels of academic motivation and engagement in a study of secondary school students with dyslexia.

Consideration has to be given how schools and teachers can enhance dyslexic students' engagement and motivation through effective instructional strategies and support services. Dyslexic students are at a higher risk of lower educational attainment than their peers without dyslexia (Riddick et al 1999; Snowling & Hulme, 2012).

Dyslexic students, by nature of their condition, often encounter significant difficulties in academic areas that heavily rely on strong reading and writing skills. The cumulative impact of these challenges may result in a reluctance to pursue post-secondary education or a decision to discontinue their educational journey prematurely. Pullen (2016) the implications of this longitudinal study are significant, highlighting the need for greater awareness, understanding, and support for dyslexic students in the educational system.

RESEARCH METHODOLOGY

The inquiries conducted within this study were initiated through an extensive review of existing literature. This literature review not only granted the researcher a profound comprehension of the subject matter under investigation but also facilitated the formulation of a concept for the necessary data collection strategy essential for conducting the research. The research design, in its essence, centered on outlining the approach to information gathering and the selection of pertinent data collection tools. Aspects such as sample size, participants, the method of sampling, and the data analysis technique were also thoughtfully considered. The research design is typically nonlinear and iterative, indicating that the many parts of the study are interconnected. The development of one component has a big impact on judgements made about other aspects of the research process. Data for this study were mainly gathered by the administration of questionnaires.

This study made use of 24 participants which comprises of teachers, special educators, speech therapists and behavioural therapists. 10 participants from different families, who are parents or guardians of student with dyslexia. Overall, the total number of participants randomly selected for the study are 34.

There were a total of thirty-nine (37) questions on the questionnaire, both closed and open-ended. There were two primary portions to the questionnaire, each with a separate set of questions. The first major section of the surveys was geared towards parents and guardians of students with dyslexia and included the variables that affect their academic performances.

The second segment, was created for special educators, and speech and behavioural therapists. Included in the questionnaire are open-ended questions to encourage additional comments and These subgroups were created in an effort to get responses that most closely matched the respondents' opinions on the topics of motivational factor, special educational services, and socio-economic status.

RESULTS

Table 1: Summary of linear regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.996 ^a	.993	.978	.55918

The regression model demonstrates a strong explanatory power, with an R^2 value of .993, indicating that approximately 99.3% of the variance in academic performance can be explained by the model. The adjusted R^2 value of .978 confirms the robustness of the model, considering the number of predictors included. The standard error of the estimate .55918 reflects the accuracy of predictions made by the model.

Table 2: Analysis of variance

Model	Sum of squares	Df	Mean Square	F	Sig
1 Regression	129.162	6	21.527	68.847	.003 ^b
Residual	.938	3	.313		
Total	130.100	9			

The ANOVA results reveal a significant regression model ($F = 68.847$, $p = .003$), indicating that the predictors collectively have a significant impact on academic performance.

Table 4.4.3: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.157	2.555		7.889	.004
	Extent of child/ward motivation to attend school on a weekly basis?	1.166	.165	.638	7.049	.006
	Years of experience	-.939	.252	-.369	-3.729	.034
	Number of children/ward	-4.166	.530	-.902	-7.868	.004
	Monthly household income in Naira	-1.670E-6	.000	-.941	-8.477	.003
	Number of children/wards with dyslexia	.189	.917	.021	.206	.850
	Confidence in identifying and addressing the educational needs of children with dyslexia in the classroom or in your care?	.322	.118	.165	2.736	.072

The positive coefficient for the extent of motivation of student to attend school on a weekly basis ($B = 1.166$) suggests a positive association with academic performance which means parents/educators should do everything within their means to ensure their children/students are motivated to increase their academic performance.

The marginally significant coefficient for confidence in identifying and addressing the educational needs of children with dyslexia ($B = .322$, $p = .072$) implies a weak positive impact on academic performance. A weak positive impact on academic performance implies that while there is a positive association between the level of confidence in addressing the educational needs of children with dyslexia and academic performance, this association is not very strong. In other words, although increased confidence tends to be associated with higher academic performance, the effect size is relatively small and may not be highly influential in predicting academic performance compared to other factors.

DISCUSSION

The analysis revealed a significant and negative relationship between household income and academic performance among students with dyslexia ($B = -1.670E-6$, $p = .003$). This implies that higher levels of household income are associated with lower academic performance in this context. It is important to note that this finding challenges conventional assumptions that higher income levels are always positively correlated with better academic outcomes. Several factors could contribute to this unexpected result. For instance, higher-income families may have greater access to resources and support services, leading to lower academic performance among students with dyslexia. This is in line with income paradox explained in the findings of Wang, J., & Wu, Y. (2023) where the findings shed new light on understanding how cultural capital shapes intergenerational education inequality across countries with different levels of inequality. Additionally, socioeconomic status can influence the availability of specialised educational support and interventions, which may impact academic performance. These findings highlight the complex interplay between socioeconomic factors and academic performance among students with dyslexia.

Furthermore the result revealed that higher motivation levels are linked to better academic outcomes. The positive association suggests that motivated students are more likely to engage in learning activities, seek help when needed, and persevere through challenges, all of which contribute to improved academic performance. The

findings is in line with the result Yusnan, M et al 2023 that revealed that motivation have direct influence on academic achievement having concluded that factors like vision and hearing have limited direct influence.

On the other hand, the research revealed a statistically significant negative relationship between an educator's years of experience and pupils' academic achievement ($B = -.939, p = .034$). This suggests that as educators gain experience, academic achievement tends to deteriorate. This research shows that highly experienced teachers may be less successful in encouraging academic performance.

CONCLUSION AND RECOMMENDATION

The findings highlight the multifaceted nature of factors influencing the academic performance of students with dyslexia, including motivational factor, educator experience and household income.

Higher motivation levels among students were positively associated with better academic outcomes, emphasizing the importance of fostering a supportive and engaging learning environment.

The negative impact of excessive educator experience on academic performance suggests the need for ongoing professional development and adaptation of teaching strategies.

The unexpected negative association between household income and academic performance may indicate underlying socioeconomic disparities affecting educational outcomes.

Educators' confidence has a weak influence on academic performance of the students despite varying and long years of experience. In conclusion, the results of the linear regression analyses provide valuable insights into the factors influencing the academic performance of students with dyslexia, highlighting the complex interplay of individual, educational, and socioeconomic factors.

REFERENCES

1. Cooper, R. (2006). Neurodiversity and dyslexia: Challenging the social construction of specific learning difficulties. London South Bank University.
2. Federal Republic of Nigeria, (FRN), (2004). National Policy on Education. Lagos: NERDC Press.
3. Geduld, B. (2023). A self-determination theory perspective of teacher motivation and self-directed learning skills to enhance academic performance in selected lower quintile primary schools.
4. Hennessy, T., Moran, B., Kinsella, A., & Quinlan, G. (2015). Teagasc national farm survey 2014. Agricultural Economics and Farm Surveys Department, Rural Economy and Development Programme, Teagasc, Athenry, Co. Galway. www.teagasc.ie.
5. Hettiarachchi, D. (2021). An overview of dyslexia. Sri Lanka Journal of Child Health, 50(3), 529-534.
6. Ajoku-Christopher, O. A. (2012). Factors influencing the lack of dyslexia awareness and its impact on inclusive learning in selected primary schools in Owerri West Local Government Area, Imo state, Nigeria (Doctoral dissertation, University of Greenwich).
7. Pullen, P. C. (2016). Historical and current perspectives on learning disabilities in the United States. Learning Disabilities: A Contemporary Journal, 14(1), 25-37.
8. Riddick, B., Sterling, C., Farmer, M., & Morgan, S. (1999). Self-esteem and anxiety in the educational histories of adult dyslexic students. Dyslexia, 5(4), 227-248.
9. Roitsch, J., & Watson, S. M. (2019). An overview of dyslexia: definition, characteristics, assessment, identification, and intervention. Science Journal of Education, 7(4).
10. Rose, D. H., Harbour, W. S., Johnston, C. S., Daley, S. G., & Abarbanell, L. (2006). Universal design for learning in postsecondary education: Reflections on principles and their application. Journal of postsecondary education and disability, 19(2), 135-151.
11. Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American psychologist, 55(1), 68.
12. Sharma, U., Forlin, C., & Furlonger, B. (2015). A review of contemporary models of funding inclusive education for students with dyslexia. Australia: Monash University. Search in.

13. Shaywitz, S. E., & Shaywitz, B. A. (2005). Dyslexia (specific reading disability). *Biological psychiatry*, 57(11), 1301-1309.
14. Siegel, M. (2006). Rereading the signs: Multimodal transformations in the field of literacy education. *Language arts*, 84(1), 65.
15. Snowling, M. J., & Hulme, C. (2012). Interventions for children's language and literacy difficulties. *International Journal of Language & Communication Disorders*, 47(1), 27-34.
16. Sumner, E., Crane, L., & Hill, E. L. (2021). Examining academic confidence and study support needs for university students with dyslexia and/or developmental coordination disorder. *Dyslexia*, 27(1), 94-109.
17. Wang, J., & Wu, Y. (2023). Income inequality, cultural capital, and high school students' academic achievement in OECD countries: A moderated mediation analysis. *The British Journal of Sociology*, 74(2), 148-172.
18. Yusnan, M., Saputra, L., & Omar, S. (2023). Enhancing Student Motivation to Learn Using Self-Determination Theory as a Framework: An Exploration of Internal and External Factors in the Context of Sekolah Dasar Negeri 1 Kapoa, Buton Selatan. *Buletin Edukasi Indonesia*, 2(03), 113-120.