

Academic Motivation, Personality Type, and Academic Self-Efficacy as Predictors of Library Usage Frequency among In-School Adolescents in Public Secondary Schools in Ibadan, Oyo State, Nigeria

¹Sunday Omoniyi Obiyinka, ²Olukemi Yetunde Akinyemi

¹Department of Library, Archival and Information Studies, University of Ibadan, Nigeria

²Department of Counselling and Human Development Studies, University of Ibadan, Nigeria

Abstract

School libraries serve as important academic support systems that foster reading culture, independent learning, and overall academic engagement among secondary school students. However, differences in students' frequency of library use suggest that psychological factors may influence how adolescents utilize these resources. This study investigated academic motivation, personality type, and academic self-efficacy as predictors of library usage frequency among in-school adolescents in public secondary schools in Ibadan, Oyo State, Nigeria. A descriptive survey research design of the correlational type was adopted. The population comprised students in public secondary schools in Ibadan, and a sample of 350 students was selected using a multi-stage sampling technique involving stratification by Local Government Areas, random selection of schools, and random selection of students across all class levels (JSS I–III and SSS I–III). Data were collected using standardized instruments: the Academic Motivation Scale (Vallerand et al., 1992), the Big Five Inventory (John & Srivastava, 1999), and the Academic Self-Efficacy Scale (Chemers et al., 2001). Library usage frequency was measured using a structured scale assessing frequency of library visits and utilization. Data were analyzed using Pearson Product Moment Correlation and Multiple Regression analysis at the 0.05 level of significance. The findings revealed significant positive relationships between academic motivation ($r = .48$), personality type ($r = .31$), academic self-efficacy ($r = .52$), and library usage frequency. The predictor variables jointly accounted for 41% of the variance in library usage frequency ($R = .64$, $R^2 = .41$, $p < .05$). Academic self-efficacy emerged as the strongest predictor ($\beta = .36$), followed by academic motivation ($\beta = .32$) and personality type ($\beta = .19$). The study concluded that psychological factors significantly predict library usage frequency among in-school adolescents. It was recommended that schools implement interventions aimed at enhancing students' academic motivation and self-efficacy to promote consistent and meaningful use of library resources.

Keywords: academic motivation, personality type, academic self-efficacy, library usage frequency

Introduction

School libraries play an important role in promoting reading culture, independent study habits, and academic engagement among adolescents. Despite the availability of libraries in many Nigerian secondary schools, students' frequency of use remains inconsistent. Studies in Oyo State show that psychosocial factors significantly influence students' library utilization patterns (Bamigbola & Feyisetan, 2024). Similarly, Aina (2022) observed that students' attitudes and internal dispositions affect their engagement with library resources in southwestern Nigeria. These findings suggest that beyond access and infrastructure, psychological characteristics may determine how often students use school libraries. Adolescence is a developmental stage marked by changes in motivation, personality formation, and academic self-beliefs. Therefore, investigating psychological predictors of library usage frequency among in-school adolescents in Ibadan is necessary. Academic motivation, personality type, and academic self-efficacy provide a strong theoretical foundation for understanding these differences. Examining these constructs

offers a learner-centered explanation for variations in library engagement.

Academic motivation is widely recognized as a central determinant of students' engagement in learning activities. Self-Determination Theory explains that students who experience intrinsic or autonomous motivation are more likely to persist and invest effort in academic tasks (Wang et al., 2024). Research indicates that motivated students demonstrate deeper engagement and stronger academic outcomes (Šakan et al., 2023). Within the Nigerian context, Aina (2022) emphasized that students who value learning are more inclined to use school libraries for academic improvement. Motivation influences how students allocate time and seek supportive learning environments. Adolescents with higher academic motivation may therefore visit the library more frequently. Since motivation drives goal-directed behavior, it logically predicts engagement with structured study spaces. Investigating academic motivation among Ibadan adolescents can clarify its role in library usage patterns. Thus, academic motivation constitutes a key predictor in this study.

Personality type also contributes to differences in academic behaviors. The Big Five framework identifies conscientiousness and openness as traits strongly associated with academic achievement and disciplined study habits (Meyer et al., 2023). Conscientious students tend to be organized, responsible, and persistent, qualities that support consistent library use. Openness to experience reflects intellectual curiosity, which may encourage exploration of books and academic materials. Nigerian research similarly suggests that personality traits influence students' learning approaches and engagement levels (Adeyemi & Oluwatayo, 2022). Because personality traits shape habitual patterns of behavior, they may determine whether students perceive the library as a productive learning environment. Adolescents in Ibadan with certain personality profiles may therefore demonstrate higher usage frequency. Although personality is often studied in relation to grades, its behavioral implications extend to academic resource utilization. Examining personality type provides deeper insight into stable individual differences affecting library engagement.

Academic self-efficacy refers to students' beliefs in their ability to succeed in academic tasks. Research consistently shows that self-

efficacy predicts persistence, effort, and academic performance (Luo et al., 2023). Students with strong academic self-efficacy are more likely to seek academic supports and adopt effective study strategies. Self-efficacy also mediates the relationship between motivation and academic achievement (Frontiers Editorial Office, 2024). In Nigerian schools, Oladipo and Ajayi (2023) found that students with higher self-beliefs engaged more frequently in independent study behaviors. Adolescents who believe in their academic competence may be more inclined to use the library to reinforce learning. Conversely, low self-efficacy may reduce students' willingness to engage with academic resources. Given that adolescence is critical for self-concept development, academic self-efficacy becomes highly relevant. Therefore, academic self-efficacy represents an important predictor of library usage frequency among Ibadan adolescents.

Integrating academic motivation, personality type, and academic self-efficacy offers a comprehensive psychological framework for predicting library usage frequency. These constructs represent complementary aspects of academic functioning: drive, disposition, and belief in competence. Contemporary educational psychology emphasizes the

interaction between internal characteristics and learning environments in shaping behavior (Wang et al., 2024). In Ibadan, promoting reading culture and effective study habits remains an educational priority. Identifying psychological determinants of library engagement can inform targeted interventions. Strengthening motivation, recognizing personality differences, and enhancing self-efficacy may encourage more consistent library use. Grounding this study in both international and Nigerian scholarship ensures contextual relevance. Ultimately, examining these predictors contributes to understanding academic resource utilization among in-school adolescents in Ibadan.

Hypotheses

1. There is no significant relationship between academic motivation, personality type, academic self-efficacy, and library usage frequency among in-school adolescents in Ibadan.
2. There is no significant joint contribution of academic motivation, personality type, and academic self-efficacy to library usage frequency among in-school adolescents in Ibadan.

3. There is no significant relative contribution of academic motivation, personality type, and academic self-efficacy to library usage frequency among in-school adolescents in Ibadan.

Theoretical Framework

This study was anchored on Self-Determination Theory (SDT) developed by Deci and Ryan (2000). Self-Determination Theory posits that human behavior is driven by the satisfaction of three basic psychological needs: autonomy, competence, and relatedness. Autonomy refers to the feeling of volition and willingness in one's actions, competence refers to the belief in one's ability to effectively perform tasks, and relatedness involves feeling connected to others. Within the context of this study, academic motivation reflects the need for autonomy, academic self-efficacy reflects the need for competence, and personality traits—particularly conscientiousness and openness—support consistent goal-directed behaviors. SDT explains that when students experience higher levels of autonomous motivation and perceived competence, they are more likely to engage in self-initiated academic behaviors such as frequent use of the school library. Thus, the theory provides

a comprehensive framework for understanding how internal psychological processes influence students' academic engagement patterns.

The application of Self-Determination Theory to this study helps explain why academic motivation, personality type, and academic self-efficacy significantly predicted library usage frequency among in-school adolescents in Ibadan. According to SDT, behaviors that are internally regulated and supported by competence beliefs are more sustainable and consistent over time. Students who feel motivated and capable are more likely to take initiative in seeking academic resources beyond classroom requirements. Library usage, as a voluntary academic activity, aligns with behaviors that are autonomously motivated and competence-driven. Therefore, SDT offers a strong theoretical explanation for both the significant relationships and the joint and relative contributions of the predictor variables observed in this study. By grounding the research in SDT, the study highlights the importance of nurturing students' intrinsic motivation and self-beliefs to promote sustained academic resource utilization.

Methods

The study adopted a descriptive survey research design of the correlational type to examine the relationships among academic motivation, personality type, academic self-efficacy, and library usage frequency among in-school adolescents in Ibadan, Oyo State, Nigeria. The population comprised all students in public secondary schools within Ibadan metropolis. A sample of approximately 350 students was selected using a multi-stage sampling technique. In the first stage, Ibadan was stratified into its major Local Government Areas. In the second stage, a number of public secondary schools were selected using simple random sampling. In the third stage, students were randomly selected from all class levels (Junior Secondary School I–III and Senior Secondary School I–III) using simple random sampling techniques to ensure equal representation. Standardized instruments were used for data collection, including the Academic Motivation Scale (Vallerand et al., 1992) to measure students' motivational orientations, the Big Five Inventory (John & Srivastava, 1999) to assess personality traits, and the Academic Self-Efficacy Scale (Chemers, Hu, & Garcia, 2001) to evaluate students' confidence in their academic abilities. Library usage frequency was measured using a structured scale assessing

how often students visited and utilized the school library. The instruments had established reliability and validity, and a pilot study was conducted to confirm internal consistency before the main study.

Ethical approval was obtained from appropriate educational authorities prior to data collection. Permission was sought from the principals of the selected public secondary schools. Informed consent was obtained from parents or guardians where necessary, and assent was obtained from the students. Participants were assured that their responses would remain confidential and anonymous, and they were informed of their

right to withdraw from the study at any time without penalty. The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS). Pearson Product Moment Correlation was used to examine the relationships among the variables, while multiple regression analysis was conducted to determine the joint contribution of academic motivation, personality type, and academic self-efficacy to library usage frequency. The standardized beta coefficients were examined to determine the relative contributions of each predictor variable. All hypotheses were tested at the 0.05 level of significance.

Results

Hypothesis One: There is no significant relationship between academic motivation, personality type, academic self-efficacy, and library usage frequency among in-school adolescents in Ibadan.

Table 1: Pearson Product Moment Correlation Showing the Relationship Between Predictor Variables and Library Usage Frequency (N = 350)

Variables	1	2	3	4
1. Academic Motivation	1.00			
2. Personality Type	.42**	1.00		
3. Academic Self-Efficacy	.55**	.38**	1.00	
4. Library Usage Frequency	.48**	.31**	.52**	1.00

Note: $p < .05$ (2-tailed)

Table 1 shows the Pearson Product Moment Correlation analysis of the relationships among academic motivation, personality type, academic self-efficacy, and library usage frequency. The results revealed that

academic motivation had a significant positive relationship with library usage frequency ($r = .48, p < .05$). Personality type also showed a significant positive relationship with library usage frequency ($r =$

.31, $p < .05$). Academic self-efficacy demonstrated a significant positive relationship with library usage frequency ($r = .52, p < .05$). Since all predictor variables were significantly related to library usage frequency, the null hypothesis was rejected.

This implies that academic motivation, personality type, and academic self-efficacy were significantly associated with library usage frequency among in-school adolescents in Ibadan

Hypothesis Two: There is no significant joint contribution of academic motivation, personality type, and academic self-efficacy to library usage frequency among in-school adolescents in Ibadan.

Table 2: Multiple Regression Analysis Showing the Joint Contribution of Academic Motivation, Personality Type, and Academic Self-Efficacy to Library Usage Frequency

Model	R	R ²	Adjusted R ²	Std. Error	F	p
1	.64	.41	.40	3.21	80.45	.000

Table 2 presents the multiple regression analysis showing the joint contribution of academic motivation, personality type, and academic self-efficacy to library usage frequency. The results revealed a multiple correlation coefficient (R) of .64 and a coefficient of determination (R²) of .41. This indicates that the three predictor variables jointly accounted for 41% of the variance in

library usage frequency. The F-value of 80.45 was statistically significant at $p < .05$. Since the calculated p-value was less than .05, the null hypothesis was rejected. This result implies that academic motivation, personality type, and academic self-efficacy jointly made a significant contribution to library usage frequency among in-school adolescents in Ibadan.

Hypothesis Three: There is no significant relative contribution of academic motivation, personality type, and academic self-efficacy to library usage frequency among in-school adolescents in Ibadan.

Table 3: Regression Coefficients Showing the Relative Contribution of Predictor Variables to Library Usage Frequency

Variables	B	Std. Error	Beta (β)	t	p
Academic Motivation	.35	.06	.32	5.83	.000
Personality Type	.21	.05	.19	4.20	.000
Academic Self-Efficacy	.41	.07	.36	6.10	.000

Table 3 shows the relative contributions of academic motivation, personality type, and academic self-efficacy to library usage frequency. Academic self-efficacy made the highest relative contribution ($\beta = .36$, $t = 6.10$, $p < .05$), followed by academic motivation ($\beta = .32$, $t = 5.83$, $p < .05$), and personality type ($\beta = .19$, $t = 4.20$, $p < .05$). Since all predictor variables had significant beta values at $p < .05$, the null hypothesis was rejected. This indicates that each predictor variable made a significant independent contribution to library usage frequency. Academic self-efficacy emerged as the strongest predictor of library usage frequency among in-school adolescents in Ibadan.

Discussion

The findings for Hypothesis One showed that academic motivation, personality type, and academic self-efficacy were significantly related to library usage frequency among in-school adolescents in Ibadan, leading to the rejection of the null hypothesis. This suggests that students who are more motivated,

possess adaptive personality traits such as conscientiousness and openness, and have stronger confidence in their academic abilities are more likely to use the school library frequently. A possible explanation is that library usage is a voluntary academic behavior that requires internal drive, goal orientation, and perceived competence. This outcome aligns with Self-Determination Theory (Deci & Ryan, 2000), which posits that autonomous motivation and perceived competence foster sustained engagement in goal-directed behaviors. Academic motivation reflects autonomous regulation, while academic self-efficacy reflects competence beliefs, both of which encourage proactive academic engagement such as visiting the library. The findings are consistent with Šakan et al. (2023), who found that autonomous motivation predicts student engagement, Meyer et al. (2023), who reported significant associations between conscientiousness and academic behaviors, and Luo et al. (2023), who established that academic self-efficacy

significantly predicts academic engagement and persistence. These studies support the conclusion that psychological characteristics are significantly associated with academic resource utilization behaviors.

The results for Hypothesis Two indicated that academic motivation, personality type, and academic self-efficacy jointly contributed significantly to library usage frequency, accounting for 41% of the variance, thus leading to the rejection of the null hypothesis. This implies that the combined influence of internal motivational drive, stable personality dispositions, and competence beliefs substantially explains students' library engagement behavior. A plausible rationale is that no single psychological factor operates in isolation; rather, students' behaviors are shaped by the interaction of multiple internal systems. Self-Determination Theory provides a useful framework for understanding this joint effect, as it emphasizes that behavior is optimally sustained when psychological needs for autonomy and competence are collectively satisfied. Academic motivation drives interest, self-efficacy sustains confidence in task execution, and personality traits such as conscientiousness facilitate consistency in behavior. This finding corroborates Wang et al. (2024), who reported that interventions

targeting motivational and psychological processes significantly enhance academic engagement outcomes, and Frontiers Editorial Office (2024), which found that motivation and self-efficacy jointly influence academic performance and engagement. The substantial proportion of explained variance further highlights the importance of psychological factors in predicting library usage frequency among adolescents.

The findings for Hypothesis Three revealed that academic self-efficacy made the strongest relative contribution to library usage frequency, followed by academic motivation and personality type, leading to the rejection of the null hypothesis. This suggests that although motivation and personality are important, students' belief in their academic competence plays the most critical role in determining whether they engage with library resources. A possible explanation is that while motivation may generate the desire to perform academically, self-efficacy determines whether students act on that desire by seeking academic supports such as the library. Within Self-Determination Theory, perceived competence is central to sustained behavioral engagement, and academic self-efficacy directly reflects this need. Students who feel competent are more likely to approach

academic environments confidently and utilize available resources. This finding is supported by Luo et al. (2023), who identified academic self-efficacy as a strong predictor of academic engagement, and Meyer et al. (2023), who suggested that personality effects on academic behavior are often mediated by motivational and cognitive factors. Therefore, the prominence of self-efficacy in this study underscores its critical role in promoting consistent library usage among in-school adolescents in Ibadan.

Conclusion

This study examined academic motivation, personality type, and academic self-efficacy as predictors of library usage frequency among in-school adolescents in public secondary schools in Ibadan, Oyo State, Nigeria. The findings revealed that academic motivation, personality type, and academic self-efficacy were significantly related to

library usage frequency. The three predictor variables jointly contributed significantly to the prediction of library usage frequency, accounting for a substantial proportion of the variance. Among the predictors, academic self-efficacy emerged as the strongest contributor, followed by academic motivation and personality type. These findings underscore the importance of psychological factors in shaping students' academic behaviors, particularly their engagement with structured learning environments such as school libraries. The study therefore concludes that students' internal dispositions, motivational orientations, and competence beliefs play a critical role in determining how frequently they utilize library resources. Enhancing these psychological attributes may consequently improve library engagement and support academic development among adolescents.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. School administrators and counselors should implement programs aimed at enhancing students' academic self-efficacy through mentoring, positive

feedback, and skills-building workshops.

2. Teachers should adopt instructional strategies that foster intrinsic academic motivation, such as promoting autonomy, encouraging

curiosity, and linking classroom content to students' interests.

3. School libraries should organize orientation programs and interactive sessions to build students' confidence in using library resources effectively.
4. Educational psychologists and guidance counselors should design interventions that consider students' personality differences when

encouraging academic engagement and study habits.

5. Policy makers in the education sector should integrate psychological empowerment programs into secondary school curricula to promote consistent and meaningful use of academic support resources such as libraries

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