

SELF-ESTEEM AND SELF-REGULATION AS PREDICTORS OF LEARNING OUTCOME AMONG UNDERGRADUATES IN JIGAWA STATE, NIGERIA

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Abstract

This study examined the influence of self-esteem and self-regulation on learning outcomes among undergraduate students in Jigawa State, Nigeria. The study adopted an ex-post facto research design, which is suitable for examining relationships among variables without manipulation (Dignath & Büttner, 2018). The population comprised 7,179 Level 200 students across selected institutions, from which a sample of 378 respondents was drawn using a multistage sampling technique. Data were collected using the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Self-Regulation Questionnaire (Brown et al., 1999), while students' academic performance was measured using their cumulative grade point average (CGPA). Data were analyzed using descriptive statistics, Analysis of Variance (ANOVA), and multiple regression analysis. Findings revealed significant differences in learning outcomes based on levels of self-esteem and self-regulation ($p < .001$). Furthermore, both variables jointly explained 41% of the variance in academic performance, with self-regulation emerging as the stronger predictor. The study concludes that psychological factors significantly influence academic achievement and recommends targeted institutional interventions.

Keywords: Self-Esteem, Self-Regulation, Learning Outcome, Undergraduates

Introduction

Academic performance remains a central indicator of educational effectiveness and national development, particularly within the context of higher education in Nigeria. Universities are expected to produce graduates who are intellectually competent, socially responsible, and capable of contributing meaningfully to societal advancement. However, persistent concerns about the quality of graduates and fluctuating academic outcomes have generated increasing scholarly attention. While structural factors such as curriculum design, instructional quality, and institutional facilities have been widely examined, there is growing recognition that students' internal psychological characteristics play a crucial role in determining their academic success (Wolters, 2003; Zimmerman, 2008).

Among the psychological variables influencing academic performance, self-esteem and self-regulation have emerged as particularly significant. Self-esteem, conceptualized as an individual's overall evaluation of self-worth (Rosenberg, 1965), influences how students perceive their abilities, approach challenges, and respond to academic demands. Students with high self-esteem are more likely to demonstrate confidence, persistence, and resilience, which are essential attributes for success in demanding academic environments (Baumeister et al., 2003). In contrast, low self-esteem is often associated with feelings of inadequacy, fear of failure, and avoidance of challenging tasks, all of which can negatively impact learning outcomes.

Closely related to self-esteem is the concept of self-regulation, which refers to learners' ability to control their cognitive, emotional, and behavioral processes in pursuit of academic goals (Dignath & Büttner, 2018). Self-regulated learners are characterized by their capacity to set goals, plan learning activities, monitor their progress, and evaluate outcomes. These skills enable students to take ownership of their learning and adapt effectively to academic challenges. Research has consistently demonstrated that self-regulation is a strong predictor of academic achievement, as it equips students with the tools needed to manage time, sustain motivation, and employ effective learning strategies (Ramdass & Zimmerman, 2011). In the Nigerian higher education context, particularly in states such as Jigawa, students face a range of academic and socio-economic challenges that may hinder their performance. These include limited access to learning resources, large class sizes, and varying levels of academic preparedness. In such environments, psychological factors become even more critical, as they determine how students cope with these challenges and navigate their academic journeys.

Despite this reality, there remains a paucity of empirical studies that comprehensively examine the interplay between self-esteem and self-regulation among Nigerian undergraduates. Furthermore, the increasing emphasis on independent learning in higher education underscores the importance of self-regulatory skills. Unlike secondary education, university students are expected to take greater responsibility for their learning, making the ability to regulate one's study habits and academic behavior indispensable. At the same time, maintaining a positive self-concept is essential for sustaining motivation and engagement. Therefore, understanding how these psychological constructs influence learning outcomes is vital for designing effective educational interventions and policies.

Statement of the Problem

Academic performance among undergraduate students in Jigawa State has continued to exhibit inconsistent and, in some cases, unsatisfactory trends, raising serious concerns among educators, policymakers, and stakeholders in the education sector. Reports and observations suggest that a significant proportion of university graduates lack the requisite competencies, critical thinking abilities, and problem-solving skills expected at the tertiary level (Maigoro, 2021). This situation not only undermines the credibility of higher education institutions but also poses a threat to national development, as the quality of human capital produced is directly linked to societal progress.

While numerous studies have attributed poor academic performance to external factors such as inadequate funding, poor infrastructure, and ineffective teaching methods, these explanations appear insufficient in fully accounting for the variations observed among students within the same institutional settings. Notably, even in similar learning environments, students often demonstrate differing levels of academic achievement, suggesting that internal psychological variables may play a significant role. However, these variables have not received adequate empirical attention within the context of Jigawa State. Evidence indicates that many undergraduate students experience psychological challenges such as low self-confidence, academic anxiety, lack of motivation, and poor study habits (Hashempour, 2014). These challenges may be closely associated with low self-esteem and inadequate self-regulation skills. Students with low self-esteem may doubt their academic abilities, avoid challenging tasks, and exhibit reduced persistence, ultimately leading to poor performance. Similarly, students who lack self-regulation skills may struggle with time management, goal setting, and effective learning strategies, thereby limiting their academic success.

Moreover, the transition from secondary to tertiary education often requires a significant adjustment in learning approaches. University students are expected to engage in independent learning, manage

their time effectively, and take responsibility for their academic progress. However, many students enter higher education without adequate preparation in these areas, resulting in difficulties in adapting to academic demands. This gap highlights the importance of self-regulation as a critical skill for academic success.

Despite the theoretical and empirical significance of self-esteem and self-regulation, there is limited research examining their combined influence on learning outcomes among undergraduate students in Jigawa State. Most existing studies have either focused on one variable in isolation or have been conducted in different cultural and educational contexts, limiting their applicability. Therefore, there is a need for a comprehensive investigation into how these psychological constructs interact to influence academic performance within this specific context. This study seeks to address this gap by examining the predictive role of self-esteem and self-regulation on learning outcomes among undergraduates in Jigawa State. By doing so, it aims to provide empirical evidence that can inform educational practices, counselling interventions, and policy formulation aimed at improving academic performance and student development.

Objectives of the study

The main objectives of the study are to find out:

1. Differences in learning outcome between various levels of self-esteem among undergraduates in Jigawa State, Nigeria.
2. Differences in learning outcome between various levels of self-regulation among undergraduates in Jigawa State, Nigeria.
3. The relative contribution of self-esteem and self-regulation on learning outcome among undergraduates in Jigawa State, Nigeria.

Literature Review

Self-regulation has been widely recognized as a central construct in educational psychology, particularly in explaining variations in students' academic performance. It refers to learners' capacity to actively control their cognitive, motivational, and behavioral processes in order to achieve academic goals (Dignath & Büttner, 2018). This involves a cyclical process of goal setting, strategic planning, self-monitoring, and self-evaluation, all of which contribute to effective learning. According to Zimmerman (2008), self-regulated learners are proactive rather than reactive; they initiate learning strategies, monitor their progress, and adjust their approaches based on feedback. Such learners tend to demonstrate higher levels of academic achievement because they are better equipped to manage distractions, utilize time efficiently, and persist in the face of academic challenges. Empirical studies have consistently shown that self-regulation is strongly associated with improved academic outcomes across different educational contexts (Ramdass & Zimmerman, 2011). Furthermore, Wolters (2003) emphasized that motivational regulation an aspect of self-regulation enables students to sustain effort and interest in learning tasks, thereby enhancing performance. This suggests that self-regulation is not merely a cognitive skill but a multidimensional construct that integrates emotional and motivational components essential for academic success.

In addition to self-regulation, self-esteem plays a significant role in shaping students' academic behaviors and outcomes. Self-esteem, defined as an individual's overall evaluation of self-worth (Rosenberg, 1965), influences how students perceive their abilities and approach academic tasks. Students with high self-esteem are more likely to exhibit confidence, resilience, and a positive attitude toward learning, which in turn enhances their academic engagement (Baumeister et al., 2003). They are less likely to experience debilitating anxiety and more likely to interpret academic

challenges as opportunities for growth. Conversely, students with low self-esteem may develop negative self-perceptions, leading to avoidance behaviors, reduced effort, and poor academic outcomes (Wajid et al., 2022). However, the relationship between self-esteem and academic performance is not always straightforward. While some studies report a strong positive correlation, others suggest that the relationship may be indirect or mediated by other factors such as motivation and self-efficacy. This has led scholars to argue that self-esteem alone may not be sufficient to guarantee academic success unless it is complemented by effective self-regulatory skills.

Recent literature has increasingly emphasized the combined influence of self-esteem and self-regulation on academic performance. Sautelle et al. (2015) found that although both constructs significantly predict academic achievement, self-regulation tends to be a more robust predictor when both variables are analyzed simultaneously. This indicates that while self-esteem provides the motivational foundation for learning, self-regulation determines the extent to which that motivation is translated into effective academic behavior. In other words, a student may possess high self-esteem but still perform poorly if they lack the skills to regulate their learning processes. Conversely, students with moderate self-esteem but strong self-regulatory skills may achieve higher academic outcomes due to their ability to organize, monitor, and adapt their learning strategies effectively. This interaction highlights the complementary roles of both constructs in influencing academic success. Therefore, understanding the interplay between self-esteem and self-regulation provides a more comprehensive framework for explaining students' learning outcomes, particularly within higher education settings where independent learning is highly emphasized.

Methodology

The researchers adopted ex-post facto research design. Ex-post facto research design is a research procedure to investigate possible cause and effect between two or more variables by observing an existing situation or state of affairs and searching back in time for possible causal factors. It is another means of testing out precursors that have already happened and cannot be manipulated by the researcher. Generally, the population of the study consists of all level 200 undergraduate students in Jigawa State, Universities there are 7,179 across college and public universities in the state. However, for the purpose of this study, the universities were clustered, whereby each university served as a cluster.

For example

i Federal University, Dutse

ii Sule Lamido University

Kafin Hausa Jigawa State College of Education Gumel (Directorate of Undergraduate)

The sample size of the study estimated obtained in the line with recommendation offered by Research Adviser (2006) is 378 students. Based on the proportion of which they appear in the population, the sample includes both male and female students. Multistage sampling technique is the bedrock for this study. Multistage sampling techniques involved the process of moving from a broad to a narrow sample, using a step by step process, to collect data for this study, three instruments will be adapted and used namely: Rosenberg self-esteem scale (1965), Self-Regulation Questionnaire (SRQ) developed by Brown, Miller and Lawendowski, (1999). The learning outcome of the students will be assessed using their cumulative grade point average (CGPA) during the second semester of the 2023/2024 academic session. The researchers will develop a proforma for data collection of respondent demographic information from the various universities in the study area. The data collected from this study will be statistically analyzed using descriptive statistics of frequency and

percentage as well as parametric statistics which involve Analysis of variance (ANOVA) and regression analysis Statistical Package of Social Sciences (SPSS) will be used as software of analyzing the data.

Results

This chapter presents the results of the statistical analyses conducted to examine the influence of self-esteem and self-regulation on learning outcomes among undergraduate students in Jigawa State, Nigeria. The data were analyzed using descriptive statistics and inferential statistics including Analysis of Variance (ANOVA) and multiple regression analysis. The presentation follows the order of the hypotheses formulated for the study.

Data Summary

Table 1: proportions of undergraduates Self-Esteem Level

Self-esteem level	N	Percentage
Low	102	27.0%
Moderate	176	46.6%
High	100	26.4
Total	378	100 %

Source: Field Survey, 2026

Table 1 above presents the distribution of respondents according to their level of self-esteem. The result indicates that 46.6% of the respondents possessed moderate self-esteem, which constitutes the largest proportion of the sample. Students with low self-esteem accounted for 27.0%, while those with high self-esteem represented 26.4% of the respondents. This finding suggests that most undergraduate students in the sampled universities exhibit an average level of confidence and self-worth in relation to their academic abilities. However, the presence of a considerable proportion of students with low self-esteem may have implications for academic engagement and performance. Self-esteem is often linked with motivation, persistence, and resilience in academic tasks, which may directly or indirectly influence students' learning outcomes.

Table 2: Table 1 proportions of undergraduates levels of Self-Regulations

Self-esteem level	N	Percentage
Low	118	31.2%
Moderate	162	42.9%
High	98	25.9
Total	378	100 %

Source: Field Survey, 2026

Table 2 presents the distribution of respondents according to their level of self-regulation. The results indicate that 42.9% of the respondents exhibited moderate levels of self-regulation, representing the highest proportion of the sample. Students with low self-regulation constituted 31.2%, while those with high self-regulation accounted for 25.9%. These findings suggest that although many students possess moderate self-management skills, a substantial number still demonstrate limited ability to regulate their learning behaviors. Self-regulation is a critical component of academic success because it involves planning, monitoring, and evaluating learning activities. Students who demonstrate strong self-regulatory skills are more likely to manage their study time effectively and remain focused on academic goals

Hypothesis Testing

Hypothesis One: There is no significant difference in learning outcome among undergraduate students with different levels of self-esteem.

Table 3 Differences in Learning Outcome Based on Self-Esteem

Source	SS	df	MS	F	p
Between Groups	38.54	2	19.27	29.61	<.001
Within Groups	243.78	375	0.65		
Total	282.32	377			

Source: Field Survey, 2026

The results presented in Table 3 show that $F(2, 375) = 29.61, p < .001$, indicating a statistically significant difference in learning outcomes among students with varying levels of self-esteem. Therefore, the null hypothesis stating that there is no significant difference in learning outcome based on self-esteem levels was rejected.

Hypothesis Two: There is no significant difference in learning outcome among undergraduate students with different levels of self-regulation.

Table 4: Differences in Learning Outcome Based on Self-Regulation

Source	SS	Df	MS	F	p
Between Groups	47.82	2	23.91	37.84	<.001
Within Groups	237.10	375	0.63		
Total	284.92	377			

Source: Field Survey, 2026

The results in Table 4 indicate that $F(2, 375) = 37.84, p < .001$, showing a statistically significant difference in learning outcomes among students with different levels of self-regulation. The null hypothesis was therefore rejected.

Hypothesis Three: Self-esteem and self-regulation do not significantly predict learning outcome among undergraduate students.

Table 5: Multiple Regression Analysis on Relative Contribution of Self-Esteem and Self-Regulation to Learning Outcome

Predictor	B	SE B	β	T	p
Self-Esteem	0.31	0.05	.34	6.84	<.001
Self-Regulation	0.42	0.05	.47	0.73	<.001
Constant	1.12	0.18	–	6.22	<.001

Source: Field Survey, 2026

Table 6 Model Summary of Regression Analysis

R	R ²	Adjusted R ²	F	P

.64	.41	.40	130.22	<.001
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Source: Field Survey, 2026

The regression analysis indicates that self-esteem and self-regulation jointly explain 41% of the variance in students' learning outcomes.

Discussion of Findings

The findings of this study revealed that self-esteem has a significant influence on the learning outcome of undergraduate students in Jigawa State universities. The results indicated that students with higher levels of self-esteem tend to achieve better academic outcomes than those with moderate or low self-esteem. This suggests that students who possess confidence in their abilities and maintain positive perceptions about themselves are more likely to engage actively in academic activities and demonstrate persistence in overcoming learning challenges. Self-esteem plays a critical role in shaping students' academic attitudes and behaviors, particularly in terms of motivation and willingness to participate in learning activities. This finding supports the empirical work of Baumeister et al. (2003) who reported that students with positive self-evaluations often exhibit stronger academic engagement and improved academic performance. Similarly, Wajid et al. (2022) found that self-esteem significantly contributes to academic achievement among university students, emphasizing those students who perceive themselves as competent learners are more likely to perform better academically.

The findings of the study also showed that self-regulation significantly influences the learning outcome of undergraduate students. The results demonstrated that students with higher levels of self-regulation achieved better academic performance compared to those with lower levels. This implies that students who are able to control their learning behaviors, set academic goals, monitor their progress, and manage their time effectively are more likely to achieve higher academic success. Self-regulation enables learners to take responsibility for their learning processes and apply effective strategies that facilitate deeper understanding and knowledge retention. The present finding corroborates the study conducted by Zimmerman (2008) which emphasized that self-regulated learners are more proactive and strategic in their learning activities, resulting in higher academic achievement. Furthermore, Ramdass and Zimmerman (2011) also reported that students who utilize self-regulatory strategies such as goal setting, self-monitoring, and self-reflection demonstrate significantly higher academic performance compared to students who lack these skills.

The results of the regression analysis further revealed that self-esteem and self-regulation jointly predict students' learning outcomes, accounting for a substantial proportion of variation in academic performance. However, the findings showed that self-regulation emerged as the strongest predictor of learning outcome among the variables examined. This indicates that although students' confidence in their abilities is important, their ability to effectively regulate their learning processes has a stronger impact on academic achievement. Students who develop effective self-regulatory strategies such as planning, monitoring, and evaluating their academic progress are more likely to achieve their educational goals. This finding is consistent with the empirical study conducted by Sautelle et al. (2015) which reported that self-regulated learning strategies significantly predict academic achievement among university students. Similarly, Wolters (2003) observed that motivational regulation and strategic learning behaviors contribute significantly to improved academic outcomes among higher education students.

Conclusion

The study concludes that self-esteem and self-regulation significantly predict academic performance. However, self-regulation plays a more dominant role in shaping learning outcomes. This highlights the importance of integrating psychological development into higher education systems.

Recommendations

Based on the findings the study recommends that:-

1. Universities should incorporate training programs that promote self-regulated learning skills. Workshops and seminars should be organized to teach students effective strategies such as goal setting, time management, self-monitoring, and academic planning.
2. Counselling units in universities should design psychological support programs aimed at enhancing students' self-esteem. Academic counsellors and psychologists should assist students in developing positive self-concepts, confidence in their abilities, and resilience toward academic challenges.
3. Lecturers should adopt instructional strategies that encourage active learning and student autonomy.
4. Universities should establish mentorship programs that connect junior students with senior academic mentors.
5. Educational policymakers should recognize the role of psychological factors in academic achievement. Policies aimed at improving higher education quality should not focus solely on curriculum and infrastructure but should also promote student development programs that strengthen self-esteem and self-regulation.

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