



SELF-CONCEPT, SELF-EFFICACY, AND SCHOOL ENVIRONMENT AS CORRELATES OF SKILL ACQUISITION AMONG SENIOR SECONDARY SCHOOL STUDENTS IN PLATEAU STATE, NIGERIA

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ABSTRACT

The study examined the relationship between self-concept, self-efficacy, school environment, and skill acquisition among Senior Secondary School II students in Plateau State, Nigeria. A descriptive correlational survey design was adopted, and the population comprised 63,718 SS2 students, from which 382 respondents were selected using stratified random sampling to ensure proportional representation across schools. Data were collected using a structured questionnaire designed to measure self-concept, self-efficacy, perception of school environment, and skill acquisition, and the instrument was validated and confirmed reliable before administration. Data were analysed using Pearson Product Moment Correlation at 0.05 level of significance. The findings revealed that self-concept had a moderate positive relationship with skill acquisition ($r = 0.562$, $p < 0.05$), indicating that students with more positive self-perceptions tend to engage more in skill-related activities; self-efficacy showed a strong positive relationship with skill acquisition ($r = 0.648$, $p < 0.05$), suggesting that students' belief in their abilities significantly enhances their skill development; while school environment showed a very weak and statistically insignificant relationship with skill acquisition ($r = 0.082$, $p = 0.110$), indicating limited direct influence. Overall, the results indicate that psychological factors, particularly self-efficacy and self-concept, are stronger determinants of skill acquisition than school environmental conditions. The study concludes that self-efficacy is the most influential variable among those examined, in line with Social Cognitive Theory, which emphasizes the role of perceived capability in learning behaviour, and recommends that schools strengthen counselling services, mentorship programmes, and instructional strategies that enhance students' confidence, self-belief, and positive self-concept to improve skill acquisition and future readiness.

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INTRODUCTION

The growing demand for practical and employable competencies among senior secondary school



students has become a major focus in contemporary educational discussions, especially in relation to youth employability and sustainable economic growth. In today's knowledge-driven world, the success of education systems is no longer measured only by examination performance, but also by how well learners can apply acquired knowledge to real-life situations. As a result, secondary education is increasingly expected to serve a dual purpose: strengthening intellectual foundations while also equipping students with practical abilities such as problem-solving, creativity, communication, critical thinking, and adaptability that are essential for work and lifelong learning. Across the globe, education systems are undergoing reforms aimed at reducing the gap between classroom learning and labour market expectations. These reforms have led to the expansion of competency-based education approaches and the strengthening of Technical and Vocational Education and Training (TVET) programmes. Such initiatives emphasise hands-on learning, innovation, and the integration of employability skills into school curricula. International bodies such as UNESCO and the World Bank continue to stress that sustainable development and economic progress depend largely on the ability of education systems to prepare young people with relevant skills for employment, entrepreneurship, and productivity enhancement (UNESCO, 2021; World Bank, 2020).

In developing countries such as Nigeria, concerns about the quality and effectiveness of secondary education in producing job-ready graduates remain persistent. Although educational policies are designed to prepare students for higher education and the labour market, evidence suggests that many secondary school graduates still lack adequate practical and technical skills required for meaningful economic participation. This gap between schooling and workplace demands has contributed significantly to rising youth unemployment, underemployment, and economic dependency, raising concerns about the relevance of current instructional practices and school structures. However, skill acquisition is not determined solely by curriculum content or availability of facilities. It is increasingly understood as the outcome of a combination of psychological and environmental influences. Students' ability to develop practical skills is shaped by internal factors such as self-concept and self-efficacy, as well as external factors like school environment, teacher quality, and availability of instructional resources. Understanding how these variables interact is essential for improving educational outcomes and designing interventions that promote effective skill development.

Self-concept refers to the way individuals perceive their own abilities, identity, and value within learning situations (Marsh & Martin, 2019). It is a broad construct that includes elements of self-esteem, self-image, and personal aspirations, all of which influence learning behaviour. When learners have a positive view of themselves, they are more likely to show persistence, confidence, and willingness to engage in challenging academic and practical tasks. Conversely, negative self-perception may reduce



motivation and limit active participation in skill-based learning activities. A well-developed self-concept therefore supports sustained engagement and better learning outcomes (Lent, 2020). Closely related to this is self-efficacy, which describes an individual's belief in their ability to successfully perform specific tasks or achieve desired outcomes (Bandura, 2020). Within social cognitive theory, self-efficacy develops through personal success experiences, observation of others, encouragement from significant figures, and emotional states. Students who consistently experience success are more likely to develop strong confidence in their abilities, while repeated failure may weaken their motivation and reduce effort. Research has shown that self-efficacy strongly influences students' persistence, engagement, and achievement in both academic and practical domains (Schunk & DiBenedetto, 2020).

Beyond psychological influences, the school environment also plays an important role in shaping learning outcomes. The school environment includes the physical conditions of learning spaces, the quality of social interactions, and the overall psychological climate of the school (Akinyemi et al., 2021). The physical aspect relates to the availability of facilities such as laboratories, workshops, and instructional materials that support hands-on learning. The social dimension reflects relationships among students, teachers, and administrators, which can encourage cooperation and participation. The psychological aspect involves safety, motivation, discipline, and emotional support within the school setting. A supportive environment enhances engagement and learning, while a poor environment may hinder skill development and reduce student motivation. Despite growing interest in educational outcomes, there is still limited empirical evidence explaining how psychological factors and school environmental conditions jointly influence skill acquisition among secondary school students in Plateau State, Nigeria. Many previous studies have examined these variables separately, without clearly comparing their relative strength or combined effects on skill development. This creates a gap in knowledge, particularly in understanding which factors play more dominant roles in shaping students' acquisition of practical competencies.

Therefore, this study investigates the relationship between self-concept, self-efficacy, school environment, and skill acquisition among senior secondary school students in Plateau State, Nigeria. It specifically examines how these psychological and environmental variables relate to students' development of practical and vocational skills. The study contributes to existing literature in educational psychology and skill development by providing empirical evidence that can guide counselling practices, instructional improvement, and policy decisions aimed at enhancing students' readiness for employment and further education.



STATEMENT OF THE PROBLEM

The expectation placed on secondary education today extends beyond the delivery of academic knowledge to include the development of practical, job-related, and life competencies that prepare learners for meaningful participation in society. In this regard, secondary schooling is increasingly regarded as a system that should equip students with both intellectual understanding and hands-on skills that support employability, entrepreneurship, and functional living after graduation.

However, despite various educational reforms and policy efforts aimed at improving learning outcomes, a noticeable gap persists between what is taught in schools and the actual abilities demonstrated by students upon completion of their secondary education. In Plateau State, a significant number of senior secondary school graduates appear to leave school without adequate practical competencies required for effective functioning in today's work environment. This situation raises concern about the effectiveness of existing teaching approaches and the extent to which students are being adequately prepared for skill-based engagement. Emerging discussions in education suggest that skill development is not influenced by curriculum content alone but also by a combination of personal and environmental conditions surrounding the learner. Students' confidence in their abilities, how they perceive themselves, and the nature of the learning environment they are exposed to are increasingly considered important in shaping their participation in practical learning activities. Nevertheless, there is limited integrated evidence showing how these factors jointly influence skill acquisition among secondary school students within the study area.

In many cases, students who lack confidence in their abilities, hold negative perceptions about themselves, or learn in environments that are poorly equipped or unsupportive tend to show low involvement in practical tasks. Such low engagement reduces their exposure to essential hands-on experiences needed for the development of relevant occupational skills. Over time, this contributes to the production of school leavers who, despite holding academic qualifications, are not adequately prepared for the demands of the labour market. This gap ultimately reflects in increased unemployment, underemployment, and reduced productivity at both individual and societal levels. Against this backdrop, this study examines the relationship among self-concept, self-efficacy, school environment, and skill acquisition among senior secondary school students in Plateau State, Nigeria. It seeks to generate empirical evidence that will support the design of more effective educational strategies aimed at improving students' practical competencies and enhancing their readiness for future employment opportunities.



OBJECTIVES OF THE STUDY

The general aim of this research is to examine how self-concept, self-efficacy, and school environment are associated with skill acquisition among senior secondary school students in Plateau State.

Specifically, the study intends to:

1. Investigate the relationship between students' self-concept and their level of skill acquisition in Plateau State;
2. Determine the relationship between self-efficacy and skill acquisition among senior secondary school students in Plateau State;
3. Explore the extent to which school environment is related to skill acquisition among senior secondary school students in Plateau State.

RESEARCH QUESTIONS

The study was guided by the following questions:

1. What relationship exists between self-concept and skill acquisition among senior secondary school students in Plateau State?
2. In what way does self-efficacy relate to skill acquisition among senior secondary school students in Plateau State?
3. How is school environment associated with skill acquisition among senior secondary school students in Plateau State?

RESEARCH HYPOTHESES

The following null hypotheses will be tested at a 0.05 level of significance:



H₀1: There is no significant relationship between self-concept and skill acquisition among senior secondary school students in Plateau State.

H₀2: Self-efficacy does not have a significant relationship with skill acquisition among senior secondary school students in Plateau State.

H₀3: There is no significant relationship between school environment and skill acquisition among senior secondary school students in Plateau State.

METHODOLOGY

The study adopted a descriptive correlational survey design to investigate the relationship among self-concept, self-efficacy, school environment, and skill acquisition among senior secondary school students in Plateau State, Nigeria. The design was considered appropriate because it allows for the examination of existing relationships among variables as they naturally occur in educational settings without any form of manipulation, thereby capturing genuine behavioural and contextual influences on students' learning outcomes.

The target population consisted of all Senior Secondary Two (SS2) students in public secondary schools in Plateau State, estimated at 63,718 based on the 2026 education records. SS2 students were selected because they are actively involved in both academic and practical learning activities and are capable of providing relevant and dependable responses. The population cuts across schools located in both rural and urban areas within Plateau North, Plateau Central, and Plateau South senatorial zones, ensuring broad geographical coverage.

A sample size of 382 respondents was determined using the Krejcie and Morgan sampling table for large populations. Stratified random sampling technique was employed to ensure proportional representation across the three senatorial zones. Accordingly, Plateau North accounted for 199 respondents, Plateau Central contributed 95 respondents, while Plateau South had 88 respondents.

Data were collected using a structured questionnaire titled Self-Concept, Self-Efficacy, School Environment, and Skill Acquisition Questionnaire (SSESAQ). The instrument comprised 40 items arranged into four sections reflecting the key variables of the study. A four-point Likert scale was used to measure responses. The self-concept items were adapted from Rosenberg's self-esteem framework, the self-efficacy items were based on Bandura's conceptualisation of perceived capability, and the school environment section was informed by Fraser's school climate framework. The skill acquisition



section was developed to reflect relevant cognitive, vocational, and practical competencies expected of secondary school students in Nigeria.

Content validity of the instrument was ensured through expert evaluation by two specialists in Guidance and Counselling, who assessed the clarity, relevance, and alignment of items with the research objectives. Their feedback was used to refine and improve the instrument for better accuracy and contextual relevance. To establish reliability, a pilot study was conducted using 40 SS2 students from schools outside the study area. The internal consistency of the instrument was tested using Cronbach's alpha, and all subscales recorded values above 0.70, indicating acceptable reliability.

Data collection was carried out after obtaining permission from the relevant school authorities. Two trained research assistants supported the process, and questionnaires were administered during school hours over a period of three weeks. All instruments were retrieved immediately after completion to ensure a high response rate and completeness of data. A decision rule of 2.50 was used, where mean scores of 2.50 and above indicated agreement. Data were analysed using both descriptive and inferential statistical methods. Descriptive statistics such as frequency counts, percentages, means, and standard deviations were used to summarise respondents' demographic information and response patterns. Inferential statistics involving Pearson Product Moment Correlation Coefficient were employed to test the hypotheses at a 0.05 level of significance.

Thus, the methodological approach ensured accuracy, reliability, and representativeness of the findings. The correlational design allowed for proper examination of relationships among variables, while stratified sampling minimized bias. Instrument validation and pilot testing improved measurement quality, and the combination of statistical techniques strengthened the credibility and generalisation of the results.

RESULTS

Test of Hypotheses

The following null hypothesis was formulated and tested at a significance level of 0.05:

H₀₁: There is no significant relationship between self-concept and skills acquisition among senior secondary school students in Plateau state.

Table 1: Pearson Product Moment Correlation between Self-Concept and Skill Acquisition

Variable	N	Mean	SD	r	P-value	Decision
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Self-Concept, Self-Efficacy, and School Environment as Correlates of Skill Acquisition among Senior Secondary School Students in Plateau State, Nigeria



Self-concept	382	3.42	0.81	0.56	0.000	H ₀ Rejected
Skill Acq.	382	3.65	0.76			

The Pearson Product Moment Correlation analysis in Table 1 revealed a statistically significant positive relationship between self-concept and skill acquisition among senior secondary school students in Plateau State ($r = 0.562$, $p < .05$, $N = 382$). The correlation coefficient indicates a moderate positive association between the variables, suggesting that higher levels of self-concept are associated with higher levels of skill acquisition among the respondents. Since the p-value is less than the 0.05 level of significance, the null hypothesis, which stated that there is no significant relationship between self-concept and skill acquisition, was rejected. This provides empirical evidence of a meaningful association between the two variables within the study population. The direction of the relationship shows that students with more positive self-perceptions tend to report higher engagement in skill-based activities, while those with lower self-concept tend to report reduced involvement. Although causality cannot be inferred, the result demonstrates a clear and significant covariation between the variables. The magnitude of the correlation ($r = 0.562$) indicates a moderate association, suggesting that self-concept is an important psychological factor linked to students' skill acquisition outcomes.

H₀₁: There is no significant relationship between self-Efficacy and skills acquisition among senior secondary school students in Plateau state.

Table 2: Pearson Product Moment Correlation between Self-Efficacy and Skill Acquisition

Variable	N	Mean	SD	r	P-value	Decision
Self-efficacy	382	3.58	0.74	0.56	0.000	H ₀ Rejected
Skill Acq.	382	3.62	0.71			

The Pearson Product Moment Correlation analysis in Table 2 revealed a statistically significant positive relationship between self-efficacy and skill acquisition among senior secondary school students in Plateau State ($r = .648$, $p < .05$, $N = 382$). The correlation coefficient indicates a strong positive association between the variables, suggesting that higher levels of self-efficacy are associated with higher levels of skill acquisition among the respondents. Since the p-value is less than the 0.05 level of significance, the null hypothesis, which stated that there is no significant relationship between self-efficacy and skill acquisition, was rejected. This provides empirical evidence of a meaningful association between students' belief in their capabilities and their engagement in skill acquisition activities. The direction of the relationship shows that students with stronger self-efficacy beliefs tend to

report higher involvement and persistence in skill-based learning activities. Conversely, lower self-efficacy is associated with reduced engagement in such activities. Although causality cannot be inferred, the result confirms a strong and consistent covariation between the variables.

The magnitude of the correlation ($r = .648$) suggests that self-efficacy is a substantial psychological factor linked to students' skill acquisition outcomes, reinforcing its relevance in understanding learning behaviour within the study context.

H₀₃: There is no significant relationship between school environment and skill acquisition among senior secondary school students in Plateau State.

Table 3: Pearson Product Moment Correlation between School Environment and Skills Acquisition

Variable	N	Mean	SD	R	P-value	Decision
School Env.	382	3.41	0.79	0.08	0.110	H ₀ Retained
Skill Acq.	382	3.58	0.74			

The Pearson Product Moment Correlation analysis in Table 3 revealed a very weak positive relationship between school environment and skill acquisition among senior secondary school students in Plateau State ($r = .082$, $p = .110$, $N = 382$). Although the direction of the relationship is positive, the magnitude is extremely small, indicating that the association between the variables is negligible in practical terms. The probability value ($p = .110$) is greater than the 0.05 level of significance, indicating that the observed relationship is not statistically significant. Consequently, the null hypothesis, which stated that there is no significant relationship between school environment and skill acquisition among senior secondary school students in Plateau State, was retained. This implies that variations in school environmental conditions do not have a statistically reliable association with students' skill acquisition within the study population.

The magnitude of the correlation coefficient further suggests that school environment accounts for an insignificant proportion of variation in students' skill acquisition. While the school environment remains a relevant contextual factor in learning, its independent contribution to skill acquisition in this study appears minimal. This finding may indicate that skill acquisition is more strongly influenced by other factors such as students' psychological dispositions, instructional quality, and exposure to practical learning experiences. It may also reflect limited variability in school environmental conditions across the sampled schools, thereby reducing its measurable effect on skill outcomes.



DISCUSSIONS OF FINDINGS

The findings of this study provide important empirical insights into the factors associated with skill acquisition among senior secondary school students in Plateau State, Nigeria. The results reveal a differential pattern of relationships among the study variables, with psychological factors (self-concept and self-efficacy) demonstrating stronger associations with skill acquisition than school environmental conditions.

The analysis of the third hypothesis revealed a very weak positive but non-significant relationship between school environment and skill acquisition ($r = 0.082$, $p = 0.110$). This implies that variations in school environmental conditions had no statistically meaningful association with students' skill acquisition in the study area. This finding aligns with the position of some empirical studies which suggest that while school environment is an important structural component of learning, its direct predictive value on practical skill outcomes may be limited when examined in isolation. For instance, studies such as those by Akinyemi et al. (2021) and Owolabi (2020) have argued that the influence of school facilities and physical learning conditions tends to be indirect, often operating through instructional quality and learner engagement rather than producing direct effects on skill development.

The weak relationship observed in this study may further suggest that existing variations in school environmental conditions across the sampled schools are not sufficiently pronounced to generate measurable differences in students' skill acquisition. It may also indicate that the effectiveness of school environment is contingent upon how such resources are utilised pedagogically, rather than their mere availability. This position is consistent with the view that infrastructure alone does not guarantee learning effectiveness unless accompanied by effective instructional practices and learner engagement strategies. In contrast, the analysis of the first hypothesis indicated a moderate and statistically significant positive relationship between self-concept and skill acquisition ($r = 0.562$, $p < 0.05$). This suggests that students who hold favourable perceptions of their abilities are more likely to engage meaningfully in skill-based learning activities. This finding is consistent with the work of Marsh and Martin (2019), who emphasized that self-concept plays a central role in shaping academic behaviour, motivation, and persistence. It also aligns with Lent (2020), who posited that learners with positive self-evaluations are more inclined to sustain effort in challenging learning tasks, thereby enhancing competence development.

The implication of this finding is that self-concept functions as an important psychological resource that supports students' willingness to participate in practical learning experiences. Although the relationship



does not imply causation, the strength and direction of the association suggest that students who perceive themselves positively are more consistently engaged in activities that facilitate skill acquisition. Similarly, the second hypothesis revealed a strong and statistically significant positive relationship between self-efficacy and skill acquisition ($r = 0.648$, $p < 0.05$). This indicates that students' belief in their ability to successfully accomplish tasks is closely associated with their level of skill acquisition. This finding is strongly supported by Bandura (2020), who argued that self-efficacy is a key determinant of human behaviour, influencing effort, persistence, and resilience in learning situations. It also corroborates the findings of Schunk and DiBenedetto (2020), who established that self-efficacy significantly enhances learners' engagement and performance in both cognitive and practical tasks.

The strong relationship observed suggests that self-efficacy is a central motivational construct that shapes how students approach skill-based learning. Learners with high self-efficacy are more likely to persist in the face of difficulty, engage actively in practical tasks, and sustain effort over time. Conversely, students with low self-efficacy may withdraw from challenging activities, thereby limiting opportunities for skill development. Among all the variables examined, self-efficacy demonstrated the strongest association with skill acquisition, indicating its relative importance in the study context. Therefore, the findings of this study suggest that psychological factors, particularly self-concept and self-efficacy, play a more prominent role in explaining variations in skill acquisition among senior secondary school students than school environmental conditions. This pattern is consistent with social cognitive perspectives which emphasize the interaction between personal beliefs and learning behaviour. It also suggests that interventions aimed at improving students' skill acquisition should place greater emphasis on strengthening psychological dispositions alongside improvements in learning environments.

In conclusion, while school environment remains a relevant contextual factor, its influence appears limited when compared to the stronger and more consistent associations observed with self-concept and self-efficacy. This underscores the need for educational stakeholders to adopt a more integrated approach that combines environmental enhancement with psychological support mechanisms such as counselling, mentorship, and confidence-building instructional strategies.

CONCLUSION

Based on the findings, the study concludes that psychological variables exert a stronger influence on skill acquisition among senior secondary school students in Plateau State than school environmental conditions. Self-concept shows a moderate but significant relationship with skill acquisition, while self-



efficacy demonstrates a strong and highly significant relationship, making it the most influential factor in the study. On the other hand, school environment shows a very weak and statistically insignificant relationship with skill acquisition, suggesting that school facilities and learning conditions alone are not sufficient to determine students' practical skill development within the study context. In summary, self-efficacy is identified as the most powerful predictor of skill acquisition, followed by self-concept, while school environment plays a minimal role.

RECOMMENDATIONS

Based on the findings, the following recommendations are made:

1. Teachers and school administrators should adopt strategies that strengthen students' self-concept. This can be achieved through positive reinforcement, constructive feedback, recognition of students' efforts, and the creation of supportive classroom environments that build learners' confidence and sense of self-worth.
2. Deliberate efforts should be made to enhance students' self-efficacy. Teachers and counsellors should use guided instruction, gradual task progression, mentorship support, and opportunities for successful task completion to help students build confidence in their abilities. Since self-efficacy has the strongest influence on skill acquisition, improving it is essential for better learning outcomes.
3. Education authorities should continue improving school facilities such as laboratories, workshops, and instructional materials. Although school environment showed a weak direct effect in this study, such improvements may still support learning indirectly by making instruction more effective and comfortable.

IMPLICATIONS FOR COUNSELLING PRACTICE

The findings have important implications for school counselling services.

1. Since self-concept and self-efficacy significantly influence skill acquisition, counselling programmes should focus on strengthening students' psychological readiness for learning. Counsellors should implement interventions that promote self-awareness, self-acceptance, and positive self-evaluation through individual and group counselling sessions.



2. In addition, counselling strategies should include goal-setting activities, structured success experiences, reinforcement of achievements, and reflective exercises that help students recognise their progress. These approaches can strengthen motivation, resilience, and sustained engagement in skill development activities.
3. Collaboration between counsellors and teachers is also essential in identifying students with low confidence or poor self-perception and providing them with targeted support. Even though school environment showed limited direct influence, counsellors can help students adapt positively to existing conditions while advocating for gradual improvement where necessary.
4. Strengthening psychological support systems in schools is essential for improving students' skill acquisition, enhancing employability, and promoting long-term academic and vocational success.

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