



PREDICTIVE POWER OF SCHOOL MANAGEMENT PRACTICES, VOCATION SKILLS AND COUNSELING SERVICES ON STUDENTS' ACADEMIC ACHIEVEMENT: IMPLICATION FOR MEASUREMENT AND EVALUATION EXPERTS

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Abstract

This study examined the predictive power of school management practices, vocational skills, and counseling services on students' academic achievement in secondary schools within the Awka education zone of Nigeria, with implications for measurement and evaluation experts. A correlational research design was adopted for the study. The population comprised secondary school students in the Awka education zone, from which a representative sample size of 368 was drawn using simple random sampling technique. Data were collected using validated questionnaires on "School Management Practices Questionnaire", "Vocational Skills Acquisition Questionnaire", "Counseling Services Questionnaire", and "Students' Achievement Proforma". Linear and multiple regression analysis were used to answer the research questions, while regression t-test and regression ANOVA were used to test the hypotheses at 0.05 significance level. The findings of the study revealed that school management practices, vocational skills, and counseling services significantly predicted students' academic achievement, both independently and jointly. The study concluded that these three variables are indispensable predictors of academic achievement in secondary schools. It was recommended among others that education



managers should strengthen management practices through participatory decision-making, ensure integration of vocational education into school curricula, and institutionalize functional counseling services to improve students' overall academic performance. The study provides practical implications for measurement and evaluation experts by demonstrating how predictive models can be applied to determine the relative contribution of school-based practices to student achievement.

Keywords: School Management Practices, Vocational Skills, Counseling Services, Academic Achievement, Measurement and Evaluation Experts.

Introduction

Education remains the bedrock of national development, and the academic achievement of students is a critical indicator of the quality of any school system. In Nigeria, and particularly within Awka education zone of Anambra State, concerns have been raised about the declining academic achievement of secondary school students, especially in core subjects like English Language and Mathematics despite government investment and policy interventions. Stakeholders ranging from parents, teachers, school managers, and policymakers are increasingly interested in identifying the factors that contribute to or hinder students' achievement. Three prominent school-based variables that warrant deeper investigation are school management practices, vocational skills training, and counseling services.

School management practices play a crucial role in shaping the teaching and learning environment. Effective management ensures proper planning, resource allocation, staff supervision, instructional leadership, and the provision of conducive facilities. According to Owan and Ekpe (2019), schools that embrace participatory and instructional management practices often record higher student achievement compared to schools where management is poorly structured. In Awka education zone, variations in principals' management practices may explain differences in students' achievement across schools, highlighting the importance of evaluating the predictive power of these practices.

Beyond management practices, the acquisition of vocational and technical skills is increasingly recognized as a complementary pathway for enhancing students' learning and engagement. The National Policy on Education emphasizes the need for functional education that equips learners with both academic knowledge and employable skills. By integrating vocational subjects such as home economics, technical drawing, woodwork, and business studies, schools are expected to produce students who are not only academically competent but also equipped with entrepreneurial abilities for self-reliance. Research on vocational skills acquisition programmes in Nigeria's South-South region reported that such programmes bring socio-economic benefits and improve practical skills and application among youths, though direct links to performance in purely academic subjects remain under-studied (Okoye, 2021). Another study on teaching effectiveness in Vocational and Technical Education found that evaluation and instructional strategies in vocational subjects require continuous refinement to align with academic achievement expectations (Uwaifo, 2019). However, the extent to which vocational skill acquisition translates into improved academic achievement remains underexplored in contexts such as Awka. Previous studies (Okoye & Okwelle, 2020) suggest that vocational skills can enhance problem-solving ability, critical thinking, and practical engagement, which in turn boost academic achievement.



There is therefore need to explore the predictive potency of vocational skills training on students' achievement in Awka education zone.

Equally important is the role of counseling services. School counseling programs are designed to provide academic guidance, career orientation, and emotional support for students. Counselling services represent the third dimension of interest. Adequate counseling can help students manage examination stress, develop study habits, and navigate socio-emotional challenges that could otherwise hinder academic progress. In Awka education zone, where many students struggle with peer pressure, poor career decisions, and limited parental support, effective counseling services may serve as a protective factor that enhances achievement. Egbochuku (2018) stresses that counseling services fosters self-awareness, motivation, and resilience; and are critical for students' academic achievement. Some researchers have tried to explore the role of counselling services on students' achievement. For example, In Lagos State, it was found that students exposed to structured counselling sessions improved significantly in mathematics performance compared to non-counseled peers, regardless of gender (Sunday & Piaro, 2018). Similarly, a recent study in Delta State demonstrated that counselling services, when used proactively, serve as coping strategies that support better academic performance among secondary school students (Egbule, 2023). The study is therefore, important to investigate the extent to which counselling services predicts students' achievement.

Notwithstanding, despite the theoretical relevance of these factors, there is still limited empirical evidence on their predictive power, that is, how much variance in students' academic achievement can be explained by school management practices, vocational skills, and counseling services, either individually or jointly. This knowledge gap makes it difficult for education managers and evaluators to make evidence-based decisions on where to channel resources and policy attention. For instance, if school management practices are found to be stronger predictors than vocational skills, then interventions may prioritize training principals in modern instructional leadership. Conversely, if counseling services prove to be more influential, greater investment in professional school counselors may be justified.

Furthermore, the study has practical implications for measurement and evaluation experts who play a key role in monitoring and assessing educational outcomes. By identifying the extent to which these variables predict student achievement, evaluators can design more targeted assessment tools, provide feedback for continuous school improvement, and contribute to accountability in the education sector. It is against this backdrop that the present study seeks to investigate the predictive power of school management practices, vocational skills, and counseling services on students' academic achievement in Awka education zone, Nigeria, with implications for measurement and evaluation experts.

Purpose of the Study

The general purpose of the study was to determine the predictive power of school management practices, vocation skill acquisition and counseling services on students' academic achievement, highlighting its implication for measurement and evaluation experts. Specifically, the study sought to determine the;



1. predictive power of school management practices on students' academic achievement in Awka education zone;
2. predictive power of vocational skills acquisition on students' academic achievement in Awka education zone;
3. predictive power of counseling services on students' academic achievement in Awka education zone
4. joint predictive power of school management practices, vocational skills, and counseling services on students' academic achievement in Awka education zone'
5. regression model for predicting the relationship among school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone.

Research Questions

The research was structured around the following guiding questions;

1. What is the predictive power of school management practices on students' academic achievement in Awka education zone?
2. What is the predictive power of vocational skills acquisition on students' academic achievement in Awka education zone?
3. What is the predictive power of counseling services on students' academic achievement in Awka education zone?
4. What is the joint predictive power of school management practices, vocational skills, and counseling services on students' academic achievement in Awka education zone?
5. What is the regression model for predicting the relationship among school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone?

Hypotheses

The following hypotheses tested at 0.05 level of significant were formulated for the study;

1. There is no significant predictive power of school management practices on students' academic achievement in Awka education zone.
2. There is no significant predictive power of vocational skills acquisition on students' academic achievement in Awka education zone.
3. There is no significant predictive power of counseling services on students' academic achievement in Awka education zone.
4. There is no significant joint predictive power of school management practices, vocational skills, and counseling services on students' academic achievement in Awka education zone.

Methods and Materials

The study adopted a correlational survey research design. The design is suitable for determining the relationship between independent variables (school management practices, vocational skills, and counseling services) and the dependent variable (students' academic achievement). This design was chosen because it allows the researchers to establish the extent to



which variations in school management practices, vocational training, and counseling services predict students' academic achievement without manipulating variables (Nworgu, 2015).

The study was conducted in Awka education zone of Anambra State, Nigeria. The zone comprises secondary schools situated in both urban and rural communities within Awka South and Awka North Local Government Areas. The choice of this zone was informed by observed challenges in students' achievement levels in external examinations and the increasing call for improved school management, vocational skill development, and counseling services.

The population of the study comprised 9,942 Senior Secondary Two (SS II) students in the public owned schools in the zone (Post-Primary Schools Service Commission (PPSSC), 2025). A sample size of 368 SS II students in Awka education zone of Anambra State was used for the study. The sample size was determined using Taro Yamane formula at a 5% margin of error.

Four (4) instruments were designed by the researchers and used for data collection. They are; School Management Practices Questionnaire (SMPQ), Vocational Skills Acquisition Questionnaire (VSAQ), Counseling Services Questionnaire (CSQ), and Students' Achievement Proforma. The instruments were face validated by three experts: one in Measurement and Evaluation, one in Guidance and Counseling, and one in Educational Management. Their inputs ensured clarity, content relevance, and suitability for the target population. The reliability of the instruments (SMPQ, VSAQ and CSQ) was established using Cronbach Alpha after trial testing them on 30 SS II students in Orumba Local Government Area who were not part of the study but share similar characteristics with those in the study. The reliability coefficients of 0.89, 0.87 and 0.83 were obtained for SMPQ, VSAQ and CSQ respectively.

The researchers administered the instruments (SMPQ, VSAQ and CSQ) directly to the students in the sampled schools. This ensured a high return rate and minimized misinterpretation of the items. However, students' academic proforma was used collect students' scores in both English and Mathematic, which are the core and compulsory subjects for the students. Data collected were analyzed using regression analysis. Specifically, linear regression was used to answer research questions 1-3, while multiple regression analysis was used to answer research questions 4-5. Regression t-test was used to test hypotheses 1-3 while regression ANOVA was used to test hypothesis 4. All the formulated hypotheses were tested at 0.05 significance level.

Result

Research Question One

What is the predictive power of school management practices on students' academic achievement in Awka education zone?

Table 1: Linear regression analysis of the predictive power of school management practices on students' academic achievement in Awka education zone

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694 ^a	.481	.480	2.57838

(R²) = Coefficient of Determination



The result in Table 1 shows that the correlation coefficient between school management practices and students' academic achievement in Awka education zone was 0.694. This means that, there exist a high positive relationship between school management practices and students' academic achievement in Awka education zone. Table 1 also revealed that, the coefficient of determination (R^2) associated with the correlation coefficient of 0.694 was 0.481. This coefficient of determination (R^2) indicates that 48.1% of variation in students' achievement in secondary schools in Awka education zone is attributed to school management practices. This is an indication that 51.9% of the variation in students' achievement in public secondary schools in Awka education one is attributed to other factors other than school management practices.

Hypothesis One

There is no significant predictive power of school management practices on students' academic achievement in Awka education zone.

Table 2: Regression t-test analysis of significant predictive power of school management practices on students' academic achievement in Awka education zone

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.882	.939		24.368	.000
	SMP	.403	.022	.694	18.422	.000

The result in Table 2 shows that t-value of 18.422 with associated exact probability value of .000 was obtained. This probability value of 0.000 was compared with 0.05 set as level of significance for testing the hypothesis and it was found to be significant since the obtained probability value of 0.000 is less than 0.05. Thus, the null hypothesis of no significant predictive power of school management practices on students' academic achievement in Awka education zone was rejected. The researchers therefore, conclude that there is a significant predictive power of school management practices on students' academic achievement in Awka education zone.

Research Question Two

What is the predictive power of vocational skills acquisition on students' academic achievement in Awka education zone?

Table 3: Linear regression analysis of the predictive power of vocational skills acquisition on students' academic achievement in Awka education zone

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.592 ^a	.350	.348	2.88602

(R^2) = Coefficient of Determination

The result in Table 3 shows that the correlation coefficient between vocational skills acquisition and students' academic achievement in Awka education zone was 0.592. This means that, there exist a moderate positive relationship between vocational skills acquisition and students'



academic achievement in Awka education zone. The Table also revealed that, the coefficient of determination (R^2) associated with the correlation coefficient of 0.592 was 0.350. This coefficient of determination (R^2) indicates that 35% of variation in students' achievement in secondary schools in Awka education zone is attributed to vocational skills acquisition. This is an indication that 65% of the variation in students' achievement in public secondary schools in Awka education one is attributed to other factors other than vocational skills acquisition.

Hypothesis Two

There is no significant predictive power of vocational skills acquisition on students' academic achievement in Awka education zone.

Table 4: Regression t-test analysis of significant predictive power of vocational skills acquisition on students' academic achievement in Awka education zone

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	25.229	1.063		23.729	.000
	VSA	.378	.027	.592	14.036	.000

The result in Table 4 shows that t-value of 14.036 with associated exact probability value of .000 was obtained. This probability value of 0.000 was compared with 0.05 set as level of significance for testing the hypothesis and it was found to be significant since the obtained probability value of 0.000 is less than 0.05. Thus, the null hypothesis of no significant predictive power of vocational skills acquisition on students' academic achievement in Awka education zone was rejected. The researchers therefore, conclude that there is a significant predictive power of vocational skills acquisition on students' academic achievement in Awka education zone.

Research Question Three

What is the predictive power of counseling services on students' academic achievement in Awka education zone?

Table 5: Linear regression analysis of the predictive power of counseling services on students' academic achievement in Awka education zone

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.656 ^a	.430	.428	2.70285

(R^2) = Coefficient of Determination

The result in Table 5 shows that the correlation coefficient between counseling services and students' academic achievement in Awka education zone was 0.656. This means that, there exist a high positive relationship between counseling services and students' academic achievement in Awka education zone. Table 5 also revealed that, the coefficient of determination (R^2) associated with the correlation coefficient of 0.656 was 0.430. This coefficient of determination (R^2) indicates that 43% of variation in students' achievement in secondary schools in Awka education zone is attributed to counseling services. This is an indication that 57% of the variation in students'



achievement in public secondary schools in Awka education one is attributed to other factors other than counseling services.

Hypothesis Three

There is no significant predictive power of counseling services on students' academic achievement in Awka education zone.

Table 6: Regression t-test analysis of significant predictive power of counseling services on students' academic achievement in Awka education zone

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	22.697	1.051		21.588	.000
	CSs	.454	.027	.656	16.611	.000

The result in Table 6 shows that t-value of 14.036 with associated exact probability value of .000 was obtained. This probability value of 0.000 was compared with 0.05 set as level of significance for testing the hypothesis and it was found to be significant since the obtained probability value of 0.000 is less than 0.05. Thus, the null hypothesis of no significant predictive power of counseling services on students' academic achievement in Awka education zone was rejected. The researchers therefore, conclude that there is a significant predictive power of counseling services on students' academic achievement in Awka education zone.

Research Question Four

What is the joint predictive power of school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone?

Table 7: Multiple regression analysis of the predictive power of school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.824 ^a	.679	.677	1.41738

(R²) = Coefficient of Determination

The result in Table 7 shows that the joint correlation coefficient among school management practices, vocational skill acquisition, counseling services and students' academic achievement in Awka education zone was 0.824. The result implies that, there exists a very high positive relationship among school management practices, vocational skill acquisition, counseling services and students' academic achievement in Awka education zone. The Table also revealed that, the coefficient of determination (R²) associated with the correlation coefficient of 0.824 was 0.679. This coefficient of determination (R²) indicates that 67.9% of variation in students' achievement in secondary schools in Awka education zone is jointly attributed to school management practices, vocational skill acquisition and counseling services. This is an indication that 32.1% of the variation in students' achievement in public secondary schools in Awka education one is attributed to other factors other than school management practices, vocational skill acquisition, and counseling services.



Hypothesis Four

There is no significant joint predictive power of school management practices, vocational skills, and counseling services on students' academic achievement in Awka education zone.

Table 8: Regression ANOVA of significant joint predictive power of school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3958.176	3	1319.392	656.755	.000 ^b
	Residual	731.260	364	2.009		
	Total	4689.436	367			

The result in Table 8 shows that F-ratio of 656.755 with associated exact probability value of .000 was obtained. This probability value of 0.000 was compared with 0.05 set as level of significance for testing the hypothesis and it was found to be significant since the obtained probability value of 0.000 is less than 0.05. Thus, the null hypothesis no significant predictive power of school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone was rejected. The researchers therefore, conclude that there is a significant joint predictive power of school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone.

Research Question Five

What is the regression model for predicting the relationship among school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka education zone?

Table 9: coefficient table for the joint variation in students' academic achievement that is attributed to school management practices, vocational skill acquisition, and counseling services

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.998	.751		9.313	.000
	SMP	.278	.014	.479	19.872	.000
	CSs	.231	.017	.333	13.696	.000
	VSA	.317	.013	.497	23.695	.000

The result in Table 9 shows that the linear regression " β " associated with the predictor variables gives varying difference in the dependent variable (academic achievement) "Y" when comparing groups that differ by one unit. In other word, " β " is expected to change the outcome of the dependent variable "Y". With the information in Table 9, the regression model can be shown as $Y = \beta_1 (X_1) + \beta_2 (X_2) + \beta_3 (X_3) + C$. Where " β_1 " represents coefficient of school management practices, X_1 represents school management practices, " β_2 " represents coefficient of counseling services, X_2 represents counseling services, and " β_3 " represents coefficient of vocational skill acquisition services, X_3 represents vocational skill acquisition; Y represents academic



achievement and C represents the constant value. Therefore, by inputting the corresponding values in Table 9, the model equation becomes: $Y = 0.278X_1 + 0.231X_2 + 0.317X_3 + 6.998$

Discussion of Findings

Predictive Power of School Management Practices on Students' Academic Achievement in Awka Education Zone of Anambra State, Nigeria

The findings of the study revealed that school management practices significantly predict students' academic achievement in Awka education zone of Anambra state, Nigeria. The finding that school management practices significantly predict students' academic achievement in the Awka Education Zone highlights the crucial role of effective leadership and organizational processes in shaping learning outcomes. The finding is not surprise because in secondary schools, management practices such as instructional supervision, resource allocation, teacher motivation, discipline management, and the establishment of a supportive school climate serve as enabling conditions for academic success. When principals and school leaders implement sound management practices, they create an environment that motivates teachers to be more committed to instructional delivery and encourages students to engage meaningfully in learning activities.

This result is consistent with the view of Okoro and Okoro (2018), who argued that effective school management practices enhance not only teacher performance but also contribute directly to students' cognitive achievement. Similarly, Adeyemi (2010) reported that schools with strong managerial frameworks tend to produce students with higher academic performance compared to poorly managed schools. The predictive relationship suggests that academic achievement is not solely a function of student ability or instructional strategies, but also strongly influenced by how schools are governed and resources are utilized. The finding also underscores the importance of accountability and performance monitoring by education managers. As Aja-Okorie (2014) noted, principals who engage in participatory leadership, instructional supervision, and collaborative decision-making tend to foster a culture of excellence that reflects in students' achievement. This means that measurement and evaluation of school management practices should be continuous, ensuring that weaknesses are identified and addressed promptly.

Furthermore, the finding aligns with the systems theory of education, which emphasizes that schools operate as interconnected systems where leadership, teacher input, and student outcomes are interdependent. In this sense, management practices act as a driving force that channels teacher commitment and student engagement toward improved academic performance. In Awka Education Zone, where schools often face resource limitations and overcrowded classrooms, effective management becomes even more critical in optimizing available resources to yield positive results.

Predictive Power of Vocational Skills Acquisition on Students' Academic Achievement in Awka Education Zone

The findings of the study revealed that vocational skills acquisition significantly predicts students' academic achievement in Awka Education Zone. The finding underscores the central role of practical, skills-oriented learning in shaping academic outcomes. The finding is expected because vocational training is designed to promote experiential learning, where students apply



knowledge to real-life contexts, thereby deepening understanding and retention. As noted by Olaitan (2010), vocational education enhances learners' capacity to integrate theoretical concepts with hands-on activities, which improves their overall academic performance. Thus, the significant predictive effect observed in this study highlights the need for policymakers, school administrators, and teachers to strengthen vocational education programs within secondary schools in Nigeria. Doing so could help sustain improvements in students' academic achievement and prepare them to thrive in both academic and occupational pathways.

In addition, the predictive power of vocational skills acquisition on academic achievement supports the argument that education should be holistic, equipping learners not only with cognitive knowledge but also with practical competencies for sustainable living. According to Ezeani and Akpotu (2014), when students acquire relevant skills alongside academic knowledge, they develop stronger motivation, self-efficacy, and perseverance, which reflect positively in their scholastic outcomes. The findings of the study aligns with the position of Okoye and Okwelle (2020), who emphasized that vocational education, remains a crucial avenue for bridging the gap between school learning and workplace demands. Students who engage in vocational skill development often demonstrate stronger problem-solving abilities, critical thinking, and creativity, all of which positively influence their academic achievement.

This finding also resonates with global perspectives that stress the importance of integrating vocational skills into general education to prepare learners for the challenges of the 21st-century economy (UNESCO, 2015). In Awka Education Zone like any other place in Nigeria, where unemployment and underemployment remain pressing challenges, vocational training may also serve as a motivational factor, encouraging students to take their studies more seriously, knowing that their education can directly translate into employable competencies.

Predictive Power of Counseling Services on Students' Academic Achievement in Awka Education Zone

The findings of the study revealed that counseling services have a significant predictive power on students' academic achievement in Awka education zone. This finding suggests that when schools effectively integrate counseling programs such as covering academic guidance, career planning, personal-social adjustment, and study skills development; students are more likely to perform better in their academic work. The finding therefore, highlights the relevance of counseling services in addressing challenges such as examination anxiety, poor study orientation, and lack of career direction that often hinder students' success. Therefore, schools that invest in professional counseling units and ensure that trained counselors are accessible to students can reasonably expect positive effects on learners' academic performance.

This aligns with the assertion of Egbo (2015) that counseling services provide students with direction and coping strategies that help reduce stress, anxiety, and maladjustment, thereby enhancing their capacity to concentrate and achieve academically. Similarly, Nwokolo and Anyamene (2011) emphasized that guidance and counseling services in secondary schools contribute significantly to shaping learners' study habits, time management, and career awareness, which in turn reflect in improved academic outcomes. The significant predictive effect observed in this study also confirms the position of UNESCO (2017), which highlighted counseling services



as an integral component of holistic education, especially in developing countries where students often face socio-economic and psychological challenges.

The result further supports the view of Okobiah and Okorodudu (2014), who argued that counseling services empower students to identify their strengths and weaknesses, clarify personal values, and make informed academic and career decisions. By addressing emotional issues, peer pressure, and motivational challenges, counseling provides the necessary psychological stability for effective learning. The predictive potency observed in this study may also reflect the growing recognition that academic achievement is not solely determined by instructional strategies but also by the provision of psychosocial and guidance support (Adediran, 2020).

Joint Predictive Power of School Management Practices, Vocational Skill Acquisition, and Counseling Services on Students' Academic Achievement in Awka Education Zone

The result of the study revealed a joint significant predictive power of school management practices, vocational skill acquisition, and counseling services on students' academic achievement in Awka Education Zone. The finding underscores the multi-dimensional nature of learning outcomes. Education is not solely shaped by classroom instruction but also by the broader ecosystem of school leadership, student empowerment through skills, and psychosocial support (UNESCO, 2017). For example, school management practices provide the enabling environment in which teaching and learning processes take place. Effective leadership in areas such as supervision, resource allocation, and teacher motivation often enhances instructional quality and organizational stability, which in turn reflect in students' academic achievement (Adeyemi, 2010). When management is participatory and supportive, teachers are more committed, while students benefit from structured learning systems.

In addition, vocational skills acquisition equips students with practical competencies that complement theoretical knowledge. Scholars such as Okoye and Okwelle (2020) argue that vocational education not only enhances employability but also develops problem-solving and critical thinking skills that improve academic performance in other subject areas. By engaging students in hands-on learning, vocational training boosts their confidence, creativity, and relevance of education, which are strong predictors of achievement. Counseling services also play a pivotal role by addressing emotional, psychological, and career-related needs of students. Effective guidance counseling programs help students cope with academic stress, make informed career choices, and build positive attitudes toward learning (Egbo, 2015; Adediran, 2020). The integration of counseling services ensures that students' non-cognitive challenges do not obstruct their academic goals.

The joint predictive power of these three factors reveals that academic success results from the synergy of effective school leadership, skill-oriented learning, and supportive counseling structures. This finding aligns with systems theory in education, which posits that, various subsystems within a school; administration, teaching, guidance, and extracurricular activities must work in harmony to produce optimal outcomes (Okobiah & Okorodudu, 2014). Therefore, interventions that address only one factor may be insufficient; rather, a holistic approach that strengthens management, vocational training, and counseling simultaneously is necessary for sustained improvement in students' academic achievement in Awka Education Zone.



Conclusion

The study has demonstrated that school management practices, vocational skills acquisition, and counseling services each hold significant predictive power on students' academic achievement. More importantly, their joint contribution highlights the interconnectedness of administrative efficiency, practical skill development, and psychosocial support in shaping learning outcomes. This underscores the reality that students' success is not solely dependent on classroom instruction but also on the broader ecosystem of support services and institutional practices. For measurement and evaluation experts, these findings have far-reaching implications. This call for comprehensive evaluation frameworks that go beyond cognitive test scores to include the quality of school management, availability and relevance of vocational training, and the effectiveness of counseling services as integral determinants of achievement. By incorporating these non-cognitive and contextual variables into assessment models, evaluators can provide more holistic and actionable feedback for educational policy, planning, and practice. Ultimately, the findings point to the need for a systemic approach in which school managers, counselors, teachers, and evaluators collaborate to foster environments that optimize learning and equip students with the academic and life skills needed for success in the 21st century.

Recommendations

The following recommendations were made based on the findings of the study;

1. Education managers and school administrators should adopt participatory and transparent management practices that foster teacher motivation, effective instructional supervision, adequate resource allocation, and a conducive learning environment.
2. The Ministry of Education should monitor and enforce policies that make school management practices more accountable, vocational education more practical and counseling services more effective at the secondary school level.
3. Secondary schools should expand and properly implement vocational skill programs that are aligned with labor market needs, equipping students with practical, hands-on competencies that complement academic learning.
4. Guidance and counseling units in schools should be fully institutionalized, well-staffed, and adequately funded to provide continuous academic, career, and psychosocial support to students.
5. Regular workshops, seminars, and professional development programs should be organized for principals, teachers, and counselors to improve their competencies in management, vocational training, and counseling service delivery.
6. Schools should strengthen partnerships with parents, local industries, and government agencies to enhance vocational training opportunities and ensure that counseling services are relevant to contemporary challenges faced by students.
7. Measurement and evaluation experts should adopt predictive models to regularly assess the contribution of school management practices, vocational skills, and counseling services to students' achievement, thereby generating data-driven recommendations for improvement.



References

1. Adediran, A. A. (2020). Guidance and counselling services and students' academic performance in secondary schools in Nigeria. *Journal of Education and Practice*, 11(14), 45–53.
2. Adediran, A. A. (2020). The role of guidance and counseling services on students' academic performance in Nigerian secondary schools. *Journal of Education and Practice*, 11(6), 45–53.
3. Adeyemi, T. O. (2010). Principals' leadership styles and teachers' job performance in senior secondary schools in Ondo State, Nigeria. *Journal of Education Administration and Policy Studies*, 2(6), 83–91.
4. Aja-Okorie, U. (2014). The role of school management in achieving quality assurance in education: Implications for principals. *International Letters of Social and Humanistic Sciences*, 32, 118–128. <https://doi.org/10.18052/www.scipress.com/ILSHS.32.118>
5. Egbo, A. C. (2015). Guidance and counselling: A creative approach. Enugu: Cheston Ltd.
6. Egbo, A. C. (2015). *Principles and practice of guidance and counseling in Nigeria*. Enugu, Nigeria: Joe Best Publishers.
7. Egbule, E. O. (2023). Counselling services in secondary school as coping strategy for improved academic performance of students in Delta State, Nigeria. *GPH-International Journal of Educational Research*, 6(05), 1–7. <https://doi.org/10.5281/zenodo.7940547>
8. Ezeani, N. S., & Akpotu, N. E. (2014). *The relevance of vocational and technical education in Nigeria's economic development strategy*. *Journal of Education and Practice*, 5(23), 133–137.
9. Nwokolo, C. N., & Anyamene, A. (2011). Effect of study skills counseling on academic achievement of secondary school students in Anambra State. *African Research Review*, 5(4), 54–68.
10. Okobiah, O. C., & Okorodudu, R. I. (2014). *Concepts of guidance and counseling*. Benin City, Nigeria: Ethiope Publishing.
11. Okobiah, O. S., & Okorodudu, R. I. (2014). *Issues, concepts, theories and techniques of guidance and counselling*. Benin City: Ethiope Publishing Corporation.
12. Okoro, C. O., & Okoro, N. P. (2018). Effective school management and students' academic performance in secondary schools in Nigeria. *International Journal of Innovative Education Research*, 6(2), 45–53.
13. Okoye, K. R. E. (2021). Impact of Vocational Skills Acquisition Programmes on Youths in the South-South Region of Nigeria. *Rivers State University Journal of Education*, 24(1), 58–68.
14. Okoye, K. R. E., & Okwelle, P. C. (2020). Vocational education and training (VET) as a tool for sustainable development in Nigeria. *International Journal of Vocational Education and Training Research*, 6(2), 12–19. <https://doi.org/10.11648/j.ijvetr.20200602.11>
15. Okoye, K. R. E., & Okwelle, P. C. (2020). Vocational education in Nigeria: Issues, challenges and prospects. *Journal of Education and Practice*, 11(18), 45–52.
16. Olaitan, S. O. (2010). *Vocational and technical education in Nigeria: Issues and analysis*. Onitsha: Noble Graphic Press.
17. Sunday-Piaro, K., & Others. (2018). Classroom management practices and academic performance in Uyo Local Government Area, Akwa Ibom State. *[Unpublished M.Sc Project]*.
18. Ukaegbu, C. O., Adesola, T. A., Amali, A.-M. C., & Chukwuma, O. E. (2024). Influence of school management on students' academic performance in Senior Secondary School in Ibadan



South West Local Government Area of Oyo State, Nigeria. *Integrity Journal of Education and Training*, 8(2). <https://doi.org/10.31248/IJET2024.223>

19. United Nations Educational, Scientific and Cultural Organization (UNESCO) (2015). *Rethinking education: Towards a global common good?* Paris: UNESCO Publishing.
20. United Nations Educational, Scientific and Cultural Organization (UNESCO) (2017). *Global education monitoring report: Accountability in education—Meeting our commitments*. Paris: UNESCO Publishing.
21. United Nations Educational, Scientific and Cultural Organization (UNESCO). (2017). *School-based counseling: A framework for effective practice*. Paris, France: UNESCO Publishing.
22. Uwaifo, V. O. (2019). Teaching effectiveness and students' academic achievement in vocational and technical education based programmes in Nigeria. *Journal of Research in Education and Society*. ([ICIDR](#))