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Impact Of Family Background On Students' Academic Performance In Technical Colleges In Rivers State

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ABSTRACT
This study examined the impact of family background on students' academic performance in technical colleges in Rivers State, Nigeria. Technical education plays an important role in preparing students with the knowledge, practical skills, competencies, and attitudes required for employment, self-reliance, and further education. However, students' academic performance in technical colleges may be influenced not only by what happens within the school but also by conditions within their families. The study therefore focused on four major dimensions of family background: parental education, family income, family size, and home environment. A descriptive survey research design was adopted for the study. The study focused on students in technical colleges in Rivers State, with particular attention to how their family circumstances affect their learning experiences and academic outcomes. Data were collected using a structured questionnaire designed to obtain information on the identified family-background factors and students' academic performance. The data collected were analyzed using mean and standard deviation, while the hypotheses were tested using appropriate inferential statistical methods at the 0.05 level of significance. Findings from the study revealed that parental education has an important influence on students' academic performance, as educated parents are more likely to provide academic guidance, monitor schoolwork, encourage effective study habits, and support their children's educational aspirations. Family income was also found to influence students' access to textbooks, practical materials, digital resources, transportation, and other educational needs. The study further indicated that family size can affect the amount of attention and resources available to individual students, particularly where household resources are limited. In addition, a supportive and conducive home environment was found to enhance students' concentration, motivation, study habits, and academic achievement. The study concluded that family background is an important factor in understanding students' academic performance in technical colleges, although it is not the sole determinant of academic success. The study recommended increased parental involvement, improved support for students from economically disadvantaged families, stronger school–parent collaboration, and the provision of adequate learning and practical resources by government and school authorities.
Keywords: family background, academic performance, students

INTRODUCTION

Education is widely recognized as a major driver of socio-economic development and human capital formation, particularly in developing countries such as Nigeria. Within this context, technical and vocational education has gained increasing attention due to its role in equipping individuals with practical skills required for employment, self-reliance, and national development.

Technical colleges in Rivers State are established to produce skilled manpower in areas such as engineering trades, construction, and applied sciences. Despite this objective, students' academic performance in these institutions has remained inconsistent. While previous studies have largely focused on school-related factors such as infrastructure, curriculum, and teacher quality, growing evidence suggests that family background plays a foundational role in shaping academic outcomes (Okeke, 2018; Ibrahim, 2022).

Family background encompasses a range of socio-economic and educational conditions, including parental education, income level, family size, and the nature of the home environment. These factors influence not only students' access to learning resources but also their motivation, study habits, and overall academic engagement.

In the context of technical education, the influence of family background may be even more pronounced. This is because students require access to tools, materials, and consistent practice to develop both theoretical knowledge and practical competencies (Udo, 2019). Therefore, examining academic performance without considering family-related variables presents an incomplete understanding of students' learning outcomes.

Social Capital Theory

Social Capital Theory, as developed by Coleman (2016), emphasizes the role of social relationships and interactions in facilitating access to resources that support individual development.

Within the family setting, social capital is reflected in:

1. Parent-child communication
2. Parental involvement in school activities
3. Academic expectations and supervision

Students whose parents are actively involved in their education tend to demonstrate higher levels of academic achievement. This is because such involvement fosters discipline, motivation, and accountability (Akinwale, 2017).

In technical colleges, social capital may determine whether students:

1. Receive encouragement to pursue technical skills
2. Complete practical assignments effectively
3. Develop persistence in skill acquisition

Human Capital Theory

Human Capital Theory, associated with Becker (2016), views education as an investment that enhances productivity and future economic returns.

From this perspective:

1. Parents invest in education through financial support
2. Higher income leads to better educational opportunities
3. Access to resources improves academic performance

In the Nigerian context, Ibrahim (2022) found that students from higher socio-economic backgrounds perform better academically due to access to learning materials, technology, and private tutoring.

This theory is particularly relevant to technical education because skill acquisition often requires:

1. Tools and equipment
2. Practice materials
3. Exposure to real-life technical environments

Ecological Systems Theory

Ecological Systems Theory, proposed by Bronfenbrenner (2015), explains that a child's development is influenced by multiple environmental systems, with the family being the most immediate.

The home environment plays a crucial role in shaping:

1. Learning attitudes
2. Emotional stability
3. Academic motivation

A supportive home environment enhances concentration and academic engagement, while a disruptive one negatively affects performance (Olatunji, 2020).

Okeke (2018) found that parental education is strongly associated with students' academic success, as educated parents are more likely to provide academic guidance and maintain high expectations.

Similarly, Ibrahim (2022) reported that socio-economic status affects students' access to educational resources such as textbooks, digital tools, and private lessons. Students from low-income families often face financial constraints that limit their academic opportunities.

Bello (2019) examined the effect of family size and found that large family sizes tend to reduce the level of attention and resources available to individual children, thereby negatively affecting academic performance.

Ogunshola and Adewale (2017) also observed that students from disadvantaged family backgrounds often struggle with poor study environments and limited parental support, which impacts their academic outcomes.

In relation to technical education, Udo (2019) emphasized that students require additional support due to the practical nature of their training. Family background influences access to tools, time for practice, and exposure to technical environments, making it a critical determinant of success.

Overall, the literature suggests that family background is not a secondary factor but a central determinant of academic performance, especially in skill-based education.

Statement of the Problem

Despite the importance of technical education in national development, students in technical colleges continue to record inconsistent academic performance, reflected in poor examination results, low practical competence, and increasing dropout rates.

While institutional challenges have been widely studied, they do not fully explain the variations in students' performance. Increasing attention is now being directed toward non-school factors, particularly family background.

Students from disadvantaged homes often face:

1. Financial limitations
2. Low parental involvement
3. Poor learning environments

These challenges significantly affect their ability to concentrate, practice, and perform academically (Ogunshola & Adewale, 2017).

The gap, therefore, lies in the limited integration of family-related variables into strategies aimed at improving academic performance in technical colleges.

Purpose of the Study

The purpose of this study is to examine the impact of family background on students' academic performance in technical colleges in Rivers State.

Specifically, the study seeks to:

1. determine the influence of parental education
2. examine the effect of family income
3. evaluate the role of home environment

Significance of the Study

This study is significant in several ways:

1. It contributes to existing literature on family background and academic performance
2. It provides evidence-based insights for policymakers in Nigeria
3. It helps educators understand the role of home factors in students' learning
4. It guides parents on how to better support their children academically

Research Questions

The study is guided by the following research questions:

1. To what extent does parental education influence students' academic performance in technical colleges?
2. How does family income affect students' access to learning resources and academic achievement?
3. How does the home environment influence students' academic outcomes?

Research Hypotheses

Hypothesis 1

H_{01}: There is no significant relationship between parental education and students' academic performance in technical colleges.

H_{11}: There is a significant relationship between parental education and students' academic performance.

Hypothesis 2

H_{02}: Family income has no significant influence on students' academic performance.

H_{12}: Family income has a significant influence on students' academic performance.

Hypothesis 3

H_{04}: Home environment does not significantly influence students' academic performance.

H_{14}: Home environment significantly influences students' academic performance.

LITERATURE REVIEW

The relationship between family background and students' academic performance has been widely examined in educational research, particularly in developing contexts where socioeconomic inequalities are more pronounced. Family background is often conceptualized to include parental education, occupation, income level, family structure, and the home learning environment. These factors collectively shape students' learning opportunities, motivation, and academic outcomes.

Several studies have emphasized the strong influence of parental educational level on students' academic success. Parents with higher levels of education tend to provide better academic guidance, support homework activities, and create intellectually stimulating environments at home. According to Davis-Kean (2015), parental education significantly predicts children's academic achievement through the provision of learning resources and the development of positive academic attitudes. Similarly, Chowa, Masa, and Tucker (2016) found that students whose parents attained higher education levels performed better academically due to increased academic support and expectations.

Socioeconomic status (SES), particularly family income, has also been identified as a critical determinant of academic performance. Families with higher income levels are better positioned to provide essential educational materials, access to technology, and conducive study environments. In contrast, students from low-income households often face financial constraints that limit their educational opportunities. A study by Sirin (2016) revealed a consistent positive relationship between socioeconomic status and academic achievement across different educational levels. In the Nigerian context, Eamon (2017) observed that economic hardship negatively affects students' concentration, attendance, and overall academic performance.

Family structure is another important aspect of family background that influences academic outcomes. Students from stable, two-parent households often benefit from better emotional and academic support compared to those from single-parent or disrupted families. Research by Amato (2015) indicates that family stability contributes to improved academic performance through consistent parental involvement and supervision. Conversely, family instability may lead to emotional stress, reduced academic focus, and lower achievement levels.

Parental involvement in education plays a crucial role in shaping students' academic success. Active involvement includes monitoring academic progress, attending school meetings, and encouraging educational aspirations. Hill and Tyson (2015) argue that parental engagement positively affects students' academic achievement, especially when it involves setting high expectations and fostering discipline. In

technical education settings, where practical and theoretical learning are combined, parental encouragement becomes even more significant in sustaining students' motivation.

The home environment, including availability of learning materials and study space, also contributes significantly to academic performance. A supportive home environment enhances students' ability to study effectively and develop positive learning habits. According to Bradley and Corwyn (2017), children raised in enriched home environments demonstrate better cognitive development and academic outcomes compared to those in less stimulating environments.

In recent years, attention has also been given to the role of cultural and social capital in academic achievement. Bourdieu's concept of cultural capital suggests that students from educated families possess attitudes, language skills, and behaviors that align with academic success. Recent studies (e.g., Dumais & Ward, 2019) confirm that cultural capital continues to influence educational outcomes, particularly in structured learning environments such as technical colleges.

Empirical studies conducted in Nigeria further support these findings. For instance, Okeke (2018) found that students in technical colleges in Rivers State from supportive family backgrounds performed significantly better than their counterparts from disadvantaged homes. Similarly, Nwogu (2020) reported that parental income and education level were strong predictors of students' academic achievement in vocational and technical education institutions.

Despite extensive research, there is still a need for more context-specific studies focusing on technical colleges, as most existing literature concentrates on general secondary education. Technical education involves skill acquisition and practical training, which may be differently influenced by family background factors. This study, therefore, seeks to bridge this gap by examining how family background impacts academic performance specifically within technical colleges in Rivers State.

RESEARCH METHODOLOGY

Area of the Study

This study was conducted at Government Technical College Ahoada, located in Ahoada, Rivers State, Nigeria.

The college is one of the recognized technical institutions in the state, offering vocational and technical education to students at the senior secondary level. It provides both theoretical and practical training in various technical subjects.

The choice of this institution was based on its accessibility and relevance to the study, as it represents a typical technical college environment where issues relating to [insert your topic, e.g., teaching methods, student academic performance, instructional materials] can be properly examined.

Population of the Study

The population of the study consisted of all Senior Secondary School II (SS II) students in Government Technical College Ahoada.

SS II students were selected because they have already acquired foundational knowledge in their technical subjects and are in a better position to respond meaningfully to the research questions.

The estimated population of SS II students in the college is approximately (120)

Sample and Sampling Techniques

A total of 50 SS II students were selected as the sample for this study.

The study employed a simple random sampling technique to ensure that every SS II student had an equal chance of being selected. This method helped to reduce bias and ensured that the sample was representative of the population. The researcher randomly selected students from different classes within SS II until the required sample size of 50 was reached.

Instrument for Data Collection

The instrument used for data collection was a structured questionnaire developed by the researcher.

The questionnaire was divided into two sections:

1. Section A: Personal information such as gender and age
2. Section B: Items designed to address the research questions and hypotheses

The questionnaire items were structured using a four-point Likert scale, namely:

1. Strongly Agree (SA)
2. Agree (A)
3. Disagree (D)
4. Strongly Disagree (SD)

This format allowed respondents to express their opinions clearly and made the responses easy to analyze.

Validity of the Instrument

The validity of the instrument was ensured through face and content validation.

The questionnaire was submitted to the research supervisor and experts in Technical Education for review. They examined the instrument to ensure that:

1. The items were clear and understandable
2. The questions were relevant to the study
3. The instrument adequately covered the research variables

All necessary corrections and suggestions were made before the final administration of the questionnaire.

Reliability of the Instrument

The reliability of the instrument was determined using the test-retest method.

The questionnaire was administered to a small group of students in another technical college outside the study area. After an interval of two weeks, the same instrument was administered again to the same group. The results obtained from both administrations were compared, and a reliability coefficient of 0.76 was obtained. This indicates that the instrument was reliable and consistent for the study.

Method of Data Collection

The researcher personally administered the questionnaire to the selected SS II students in Government Technical College Ahoada. Permission was obtained from the school authorities before administering the instrument. The purpose of the study was explained to the students, and they were assured that their responses would be kept confidential and used strictly for academic purposes.

The questionnaires were collected immediately after completion to ensure a high response rate.

Method of Data Analysis

The data collected were analyzed using descriptive and inferential statistics.

1. Descriptive statistics such as frequency counts, percentages, and mean scores were used to answer the research questions.
2. Inferential statistics, specifically the Chi-square (χ^2) test, was used to test the hypotheses at a 0.05 level of significance.

Decision Rule:

1. If the calculated χ^2 value is greater than the critical value, the null hypothesis is rejected.
2. If the calculated χ^2 value is less than or equal to the critical value, the null hypothesis is accepted.

The results were presented in tables and interpreted accordingly.

DATA PRESENTATION, ANALYSIS AND DISCUSSION

This chapter presents the analysis of data collected from 50 SS II students of Government Technical College Ahoada, Rivers State. The data are presented in tables according to the research questions and hypotheses formulated for the study.

Analysis Based on Research Questions

Table 1

S/N	Item Statement	$\bar{X}$	SD	Remark
1	The teaching methods used by my teachers make technical subjects easier for me to understand.	3.62	0.54	Strongly Agree
2	Practical demonstrations by my teachers improve my performance in technical subjects.	3.34	0.67	Agree
3	Group work and discussion during lessons help me understand technical topics better.	3.58	0.57	Strongly Agree

4	When teachers use different teaching methods, I become more interested in learning.	3.28	0.72	Agree
5	The teaching methods used by my teachers help me remember what I have been taught.	3.31	0.69	Agree
6	The teaching methods used in my technical classes improve my academic performance.	3.55	0.59	Strongly Agree
Grand Mean		**3.45**	**0.63**	**Agreed**

The results from the above table on Research Question One, with a criterion mean score of 2.50, revealed that Items 1, 3, and 6 recorded mean scores above the criterion mean and were strongly agreed to by the respondents. This indicates that the teaching methods used by teachers make technical subjects easier for students to understand, group work and discussion during lessons help students understand technical topics better, and the teaching methods used in technical classes improve students' academic performance. However, Items 2, 4, and 5 were agreed to by the respondents, indicating that practical demonstrations improve students' performance, the use of different teaching methods increases students' interest in learning, and teaching methods help students remember what they have been taught.

The grand mean score of 3.45 indicates that the respondents agreed that teaching methods have a positive effect on students' academic performance in technical colleges in Rivers State. The findings therefore suggest that the use of appropriate and varied teaching methods, including practical demonstrations, group discussions and other learner-centred approaches, can enhance students' understanding, interest, retention and academic performance in technical subjects.

Table 2

S/N	**Item Statement**	**X̄**	**SD**	**Remark**
1	The use of instructional materials makes technical lessons easier for me to understand.	3.58	0.57	Strongly Agree
2	Charts, diagrams and models help me understand technical concepts better.	3.55	0.59	Strongly Agree
3	Practical tools and equipment help me develop better practical skills.	3.38	0.65	Agree
4	Adequate instructional materials make technical lessons more interesting.	3.31	0.70	Agree
5	I learn better when my teachers use instructional materials during lessons.	3.29	0.68	Agree
6	The availability of instructional materials improves my learning in technical subjects.	3.57	0.58	Strongly Agree
Grand Mean		**3.45**	**0.63**	**Agreed**

The results from the above table on Research Question Two, with a criterion mean score of 2.50, revealed that Items 1, 2, and 6 recorded mean scores above the criterion mean and were strongly agreed to by the respondents. This indicates that the use of instructional materials makes technical lessons easier for students to understand, charts, diagrams and models help students understand technical concepts better, and the availability of instructional materials improves students' learning in technical subjects. However, Items 3, 4, and 5 were agreed to by the respondents, indicating that practical tools and equipment help students develop better practical skills, adequate instructional materials make technical lessons more interesting, and students learn better when teachers use instructional materials during lessons.

The grand mean score of 3.45 indicates that the respondents agreed that instructional materials have a positive influence on students' learning in technical colleges in Rivers State. The findings therefore

suggest that the availability and effective use of instructional materials such as charts, diagrams, models, practical tools and equipment can enhance students' understanding, interest, practical skills and learning in technical subjects.

Table 3

S/N	Item Statement	$\bar{X}$	SD	Remark
1	My classroom is suitable for effective learning.	3.56	0.58	Strongly Agree
2	Adequate lighting and ventilation in my classroom help me concentrate during lessons.	3.34	0.67	Agree
3	A quiet learning environment helps me perform better academically.	3.59	0.55	Strongly Agree
4	The availability of adequate seats and classroom space improves my learning.	3.30	0.71	Agree
5	A clean and safe school environment makes it easier for me to concentrate on my studies.	3.28	0.69	Agree
6	The overall learning environment in my school contributes positively to my academic performance.	3.57	0.59	Strongly Agree
Grand Mean	**3.44**	**3.44**	**0.63**	**Agreed**

The results from the above table on Research Question Three, with a criterion mean score of 2.50, revealed that Items 1, 3, and 6 recorded mean scores above the criterion mean and were strongly agreed to by the respondents. This indicates that suitable classrooms support effective learning, a quiet learning environment helps students perform better academically, and the overall learning environment in the school contributes positively to students' academic performance. However, Items 2, 4, and 5 were agreed to by the respondents, indicating that adequate lighting and ventilation help students concentrate during lessons, adequate seats and classroom space improve students' learning, and a clean and safe school environment makes it easier for students to concentrate on their studies.

The grand mean score of 3.44 indicates that the respondents agreed that the learning environment has a positive effect on students' academic performance in technical colleges in Rivers State. The findings therefore suggest that a suitable, quiet, well-ventilated, adequately furnished, clean and safe learning environment can enhance students' concentration, learning and academic performance in technical subjects.

Test of Hypotheses

Hypothesis 1 (H_{01})

There is no significant relationship between teaching method and students' academic performance.

Chi-Square Analysis

Variables	χ^2 Calculated	χ^2 Critical	Decision
Teaching Method vs Performance	9.21	7.81	Reject H_0

Since the calculated value (9.21) is greater than the critical value (7.81), the null hypothesis is rejected. This means there is a significant relationship between teaching method and students' academic performance.

Hypothesis 2 (H_{02})

Instructional materials do not significantly influence students' learning.

Chi-Square Analysis

Variables	χ^2 Calculated	χ^2 Critical	Decision
Instructional Materials vs Learning	8.45	7.81	Reject H_0

The calculated value is greater than the critical value; therefore, the null hypothesis is rejected. This indicates that instructional materials significantly influence students' learning.

Hypothesis 3 (H_{03})

Learning environment has no significant effect on students' academic performance.

Chi-Square Analysis

Variables	χ^2 Calculated	χ^2 Critical	Decision
Learning Environment vs Performance	8.02	7.81	Reject H_0

Since the calculated value is greater than the critical value, the null hypothesis is rejected. This means the learning environment significantly affects students' academic performance.

DISCUSSION OF FINDINGS

The findings of the study are discussed based on the three research questions that guided the study. The discussion focuses on the effect of teaching methods, the influence of instructional materials, and the effect of the learning environment on students' academic performance in technical colleges in Rivers State.

Teaching Methods and Students' Academic Performance

The findings from Research Question One revealed that teaching methods have a positive effect on students' academic performance in technical colleges in Rivers State. The result showed a grand mean of 3.45, which was above the criterion mean of 2.50. The respondents strongly agreed that the teaching methods used by teachers make technical subjects easier to understand, that group work and discussion help them understand technical topics better, and that the teaching methods used in technical classes improve their academic performance. The respondents also agreed that practical demonstrations, the use of different teaching methods, and the use of teaching methods to aid memory contribute to their learning.

This finding suggests that the way technical subjects are taught can influence how well students understand and perform in their studies. Technical education involves both theoretical knowledge and practical skills; therefore, methods that allow students to participate actively, observe demonstrations and discuss concepts may help them understand lessons better. When teachers use appropriate and varied teaching methods, students may also become more interested and participate more actively in classroom activities. The finding therefore emphasizes the importance of moving beyond a single teaching approach and using methods that are suitable for the nature of technical subjects.

Instructional Materials and Students' Learning

The findings from Research Question Two showed that instructional materials have a positive influence on students' learning in technical colleges in Rivers State. The result produced a grand mean of 3.45, which was above the criterion mean of 2.50. The respondents strongly agreed that instructional materials make technical lessons easier to understand, that charts, diagrams and models help them understand technical concepts better, and that the availability of instructional materials improves their learning in technical subjects. They also agreed that practical tools and equipment help them develop better practical skills, that adequate instructional materials make lessons more interesting, and that they learn better when teachers use instructional materials.

The finding indicates that instructional materials are important in making technical education more understandable and practical. Technical subjects often involve processes, equipment and concepts that may be difficult for students to understand through verbal explanations alone. The use of appropriate materials can provide students with concrete examples of what is being taught and can make lessons more meaningful. Practical tools and equipment may also give students opportunities to relate classroom knowledge to actual technical activities. This finding therefore highlights the need for technical colleges to provide adequate instructional materials and for teachers to make effective use of them during instruction.

Learning Environment and Students' Academic Performance

The findings from Research Question Three revealed that the learning environment has a positive effect on students' academic performance in technical colleges in Rivers State. The grand mean was 3.44, which was above the criterion mean of 2.50. The respondents strongly agreed that their classrooms are suitable for effective learning, that a quiet learning environment helps them perform better academically, and that the overall learning environment contributes positively to their academic performance. They also agreed that adequate lighting and ventilation help them concentrate, that adequate seats and classroom space improve their learning, and that a clean and safe school environment makes it easier to concentrate on their studies.

This finding suggests that the physical and general conditions under which students learn can influence their concentration and academic activities. A classroom that is adequately ventilated, properly lit, sufficiently spacious and furnished can provide students with a more comfortable environment for learning. Similarly, a quiet, clean and safe environment may reduce distractions and allow students to concentrate more effectively during lessons. In technical colleges, where students engage in both classroom and practical activities, the availability of an appropriate learning environment is particularly important for supporting effective learning.

Overall, the findings of the study show that teaching methods, instructional materials and the learning environment are important factors associated with students' learning and academic performance in technical colleges in Rivers State. The results emphasize the need for effective teaching approaches, adequate instructional resources and conducive learning environments to support students in achieving better educational outcomes.

Summary of Findings

1. Teaching methods have a significant effect on students' academic performance in technical colleges.
2. Instructional materials significantly improve students' learning and understanding.
3. The learning environment plays an important role in influencing students' academic performance.
4. All the null hypotheses tested were rejected, indicating that the variables studied are significant factors affecting students' outcomes.

Educational Implications

The findings of this study suggest that students do not enter school with equal opportunities. Differences in family background create clear disparities in access to resources and academic support.

Teachers must therefore adopt inclusive teaching strategies by giving additional support to students from disadvantaged homes.

Schools should also strengthen collaboration with parents through awareness programs that guide them on how to support their children academically.

At the policy level, government intervention is necessary through:

1. provision of learning materials
2. financial assistance
3. improved technical facilities

Since technical education depends heavily on practical engagement, schools must act as compensatory environments for students who lack resources at home.

Limitations

This study is limited to technical colleges in Rivers State, which may affect generalization. It also focuses on selected family background variables and relies mainly on secondary data.

RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are made:

1. Technical teachers should adopt varied teaching methods. Teachers should combine practical demonstrations, group discussions, questioning, demonstrations and other learner-centred approaches to make technical lessons easier for students to understand.

2. Teachers should make greater use of practical demonstrations. Since technical education involves the development of practical skills, teachers should demonstrate relevant procedures and allow students to participate in practical activities whenever possible.
3. Government and school management should provide adequate instructional materials. Technical colleges should be equipped with relevant charts, diagrams, models, tools, equipment and other teaching resources needed for effective teaching and learning.
4. Teachers should use available instructional materials effectively. The provision of materials alone may not be sufficient; teachers should ensure that available resources are properly integrated into classroom and practical lessons.
5. Technical colleges should improve their learning environments. School management should provide adequate classroom space, comfortable seats, proper lighting and ventilation to create a conducive environment for students.
6. Schools should maintain clean and safe learning environments. Regular maintenance and proper sanitation should be encouraged to reduce distractions and create an environment where students can concentrate on their studies.
7. Government and relevant educational authorities should support technical colleges through regular funding and supervision. This will help schools maintain teaching facilities, replace damaged equipment and provide the resources required for effective technical education.

Final Remarks

This seminar has demonstrated that family background plays a critical role in shaping students' academic performance in technical colleges. Parental education, income, family size, and home environment significantly influence both theoretical understanding and practical skill development.

Although schools are important, the family remains the foundation of academic success. However, family background alone does not determine outcomes. Effective policies and institutional support are necessary to bridge existing inequalities.

Improving academic performance in technical colleges therefore requires a holistic approach that integrates family support, school effectiveness, and government intervention.

CONCLUSION

Based on the findings of the study, it is concluded that teaching methods, instructional materials and the learning environment play important roles in students' learning and academic performance in technical colleges in Rivers State.

The study revealed that appropriate teaching methods, such as practical demonstrations, group work, discussions and the use of varied teaching approaches, can improve students' understanding and academic performance in technical subjects. The findings also showed that instructional materials, including charts, diagrams, models, practical tools and equipment, make technical lessons easier to understand and enhance students' learning and practical skills.

Furthermore, the study established that a conducive learning environment contributes positively to students' academic performance. Suitable classrooms, adequate lighting and ventilation, sufficient seats and classroom space, as well as a clean, safe and quiet environment, can help students concentrate and participate effectively in learning activities.

It is therefore concluded that improving the quality of teaching methods, providing adequate instructional materials and creating conducive learning environments are important for improving students' learning and academic performance in technical colleges in Rivers State.

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