

## Causes of Students Mass Failure in Basic Technology in Junior Secondary Schools in Ilorin Metropolis, Kwara State

<sup>1</sup>Kareem, W. B., <sup>2</sup>Taiwo, S. A., <sup>3</sup>Gazali, S. A., <sup>4</sup>Raji, F. A., & <sup>5</sup>Salimon, B. A

<sup>1</sup>Department of Industrial and Technology Education, Federal University of Technology, Minna, Nigeria

<sup>2,4&5</sup>Department of Educational Technology, Faculty of Education, University of Ilorin, Ilorin, Nigeria.

<sup>3</sup>Department of Examination Development, National Examination Council Minna, Nigeria

E-mail: [wahabami4u@futminna.edu.ng](mailto:wahabami4u@futminna.edu.ng) Mobile: 07063751512

### Abstract

*The main purpose of the study is to establish the causes of student's mass failure in Basic Technology in Junior Secondary School in Ilorin metropolis, Kwara State. While the objectives are to determine: i. the cultural factors contributing to student's mass failure in Basic Technology in Secondary Schools ii. The socio-economic factors contributing to students mass failure in Basic Technology in Secondary Schools. iii. The school based factor contributing to student mass failure and academic performance of student. The research design for this study was a descriptive survey. The population of the study comprised all teachers and students in junior secondary schools in Ilorin metropolis, Kwara State. Data retrieved from the ministry of education, Ilorin revealed that there are over 254 teachers and 2,875 students in Ilorin metropolis. Random sampling was used to select 76 teachers and 563 students as 30% of the total population selected from the junior secondary schools in Ilorin metropolis. Mean and standard deviation was used to analyse the research questions while t-test was used to analyse the hypotheses with the aid of statistical package for social sciences (SPSS) at 0.05 level of significance. The finding of the study revealed that all item listed are the contributing factor for student mass failure among others. Based on the finding the study recommended that Government should provide training and the retraining for the teachers on culturally responsive teaching strategies to effectively address cultural influences on students' learning experiences, Implement targeted socio-economic support programs to alleviate financial barriers to education.*

**Keywords:** Mass failure, Education, Basic Technology, Students, Teachers.

### Introduction

Education is a transformative and lifelong process that extends beyond the confines of classrooms and textbooks. James (2017) emphasized that education is the holistic cultivation of knowledge, skills, values, and critical thinking that empowers individuals to navigate the complexities of the world and contribute meaningfully to society. Beyond the acquisition of facts, education shapes character, fosters creativity, and instils a sense of curiosity and resilience. It encompasses formal learning in academic institutions as well as informal experiences, encouraging continuous growth and adaptability. Education is a powerful catalyst for personal development, social progress, and the advancement of collective knowledge, serving as a cornerstone for the enrichment of lives and the betterment of communities (James, 2017). However, there is the need to give attention to the student in their study system at the crucial time when student fail Basic Education Certificate Examination (BECE) massively if not the enrichment of life and the betterment of community might be a mirage as a result of student mass failure.

In the context of the study, mass failure is a term

used to describe the poor academic performance of student in a prescribed examination. Though the outcome may either be with success or failure, if the majority of student that participated in such examination record high failure it is then refer to as mass failure. Therefore, according to Ajayi (2016), academic performance is the outcome of educational goals that are achieved by students, that is how well a student meet up with standard set out by authority or institution. Nnamdi (2017) revealed that Academic performance refers to how students deal with their study and how they cope with or accomplish different task given to them by their teachers. It is the ability to study and remember fact and being able to communicate their knowledge verbally or down on paper. Thus, it implies a process where student's success in school is measured to determine how they stand up to others in the same areas. Colgate (2014) further emphasized that academic performance refers to an individual's or a student's ability to successfully meet the requirements and expectations of an educational institution, such as a school, college, or university. It is typically assessed through various measures, including grades, test scores, class rankings, and evaluations by teachers or professors. Academic

performance reflects how effectively a student has acquired and demonstrated knowledge, skills, and competencies in their academic endeavours. The academic performance of students in basic technology can vary widely depending on various factors, including the curriculum implementation, teaching methods, student engagement, and individual abilities. Basic technology typically encompasses a range of subjects related to fundamental technological concepts and skills, such as computer literacy, technical drawing, wood working, metal working, and electrical/electronics, among others. According to Hassan (2016), the level of academic performance of students in Basic technology indicates their overall outcome in the subject which for so many consecutive years has been a failure outcomes.

The junior secondary school programme refers to the educational curriculum and structure that typically caters for students in the early stages of secondary education, often spanning grades or years 1 to 9, depending on the educational system in place (Ojo, 2016). This phase is positioned between primary or elementary education and senior secondary education. The junior secondary school programme is designed to build upon the foundational knowledge and skills acquired during primary school while preparing students for more advanced learning in the senior secondary phase. The focus during this stage is often on providing a well-rounded education that includes a range of subjects such as Basic Technology, Basic science, social studies, languages, arts, and physical education. The curriculum may also introduce students to more specialized subjects based on their interests or future academic paths. Basic technology is an integrated subject which comprises of woodwork, metal work, building technology, auto mechanics, electrical electronics and technical drawing at their basic level (Agu, 2016). It is a subject that is offered at the junior secondary school level. The attainment of scientific and technological advancement would be facilitated if basic technology is effectively administered at the junior secondary school level. Within the context of technology education, basic technology has been identified as a very important school subject and its importance in scientific and technological development of any nation. As a result of the recognition given to basic technology in the development of the individual and the nation that made it one of the core subjects among other science related subject in Nigeria education system.

Schools and educational institutions use academic performance assessments to track students'

progress, identify areas of improvement, and tailor interventions to meet individual learning needs (Eze, 2016). Additionally, academic performance can impact students' future educational and career opportunities, as it is often considered a key factor in college admissions and job applications. Educational systems continually explore strategies to enhance academic performance, such as implementing effective teaching methods, providing additional support for struggling students, and fostering a positive and inclusive learning environment. According to Nnamdi (2017), the level of students' academic performance in Basic technology in secondary schools is nothing to write home about. The author further emphasized that the low level of students' academic performance in junior secondary schools is a 'multifaceted challenge stemming from various interconnected factors. Insufficient resources, including outdated textbooks and inadequate learning materials, hamper the quality of education. Additionally, overcrowded classrooms and a shortage of qualified teachers limit personalized attention and effective teaching methodologies.

Several factors contribute to mass failure in basic technology in junior secondary schools. According to Adelekan (2013) highlighted that varying levels of preparedness, and a lack of extracurricular activities, hands-on learning experiences may lead to student failure (Nnamdi, 2017) stresses further that the absence of a supportive learning environment, coupled with societal and family pressures, can negatively impact students' mental well-being and motivation to excel academically. Addressing these issues necessitates comprehensive reforms, including resource allocation, teacher training, and the implementation of student-centric approaches to enhance the overall educational experience in secondary schools.

The consequences of a low level of students' academic achievement are far-reaching and can have a lasting impact on individuals and society as a whole. On an individual level, students who consistently underperform academically may experience diminished self-esteem, reduced confidence, and a lack of motivation. This can hinder their ability to pursue higher education or secure meaningful employment opportunities in the future. The cycle of lower achievement may perpetuate across generations, contributing to socio-economic disparities. Societal consequences include a potential decline in overall workforce quality, limiting a country's ability to compete globally. Additionally, low academic achievement can correlate with increased rates of unemployment,



poverty, and social issues. Therefore, addressing and improving student achievement is crucial for fostering individual success and creating a more resilient and prosperous society. Efforts to enhance educational quality, provide support systems, and address underlying socio-economic factors can help mitigate these consequences and create a more equitable and thriving educational landscape (Bernard, 2017). In light of the aforementioned, the present research work sought to investigate the causes of students mass failure in Basic Technology in Ilorin metropolis, Kwara State.

### Statement of the Problem

The persistently low rate of poor academic performance in Basic Technology is at alarming rate in Junior secondary school nationwide, Kwara state reflects a pressing concern in the educational landscape. This issue extends beyond sporadic instances, indicating systemic challenges that hinder students from achieving optimal academic outcomes. Identifying the root causes of this widespread low academic performance is crucial for implementing targeted interventions and fostering a conducive learning environment.

The causes of the observed low academic performance in Basic Technology in Ilorin metropolis, Kwara State are multifaceted. They may encompass challenges such as inadequate educational resources, socioeconomic disparities, teacher quality, and the overall learning environment. Factors like limited access to educational materials, insufficient infrastructure, and socioeconomic constraints contributes significantly to hindering students' ability to excel

academically. Various factors influence the performance of student generally range from personal characteristics and family background to school-related variables and community dynamics. Understanding these multifactorial influences is essential for developing targeted strategies that address specific challenges faced by students in their pursuit of academic success. Previous research on academic performance often lacks a localized focus on the unique challenges faced by students in Ilorin metropolis. Many studies have taken a broader perspective, overlooking the specific contextual nuances that may contribute to academic difficulties in this region. The lack of region-specific insights creates a gap in understanding the root causes and, consequently, limits the effectiveness of interventions tailored to the local context.

Closing the gap in previous research is imperative for developing and effective strategies to improve academic performance in Ilorin metropolis. This research work therefore seek to uncover the intricacies of the challenges faced by students, allowing for the formulation of contextually relevant policies and interventions and essentially for fostering sustainable improvements in educational outcomes and ensuring that students in Ilorin metropolis have equal opportunities for academic success.

### Objective of the Study

The aim of the study is to seek the causes of student's mass failure in Basic Technology in Junior Secondary School in Ilorin metropolis, Kwara State. While the objective are to determine;

**Table 1: Perceived cultural factors contributing to student's mass failure in Basic Technology in Junior Secondary Schools.**

<i>Item No</i>	<i>Statements</i>	<i>Mean Score</i>	<i>Standard Deviation</i>	<i>Remarks</i>
1.	Cultural restriction of movement at a certain period of years contribute to mass failure	3.43	0.67	Agreed
2.	Parents sometimes advise their wards against learning some concept in schools. e.g sex education	3.23	0.76	Agreed
3.	Some culture ban students attendance of schools during cultural activities at a certain period of year	3.20	0.82	Agreed
4.	Students are often distracted from learning effectively during cultural activities at certain period of year	3.10	0.79	Agreed
5.	Cultural belief encourages students truancy	2.91	1.06	Agreed
<b>Grand mean</b>		<b>3.17</b>		<b>Agreed</b>

The data presented in table 1 revealed that respondent agree with all the item with mean score ranging from 2.91 to 3.43. This signify that all the item listed in the table such as cultural restriction of movement at a certain period of years contribute to mass failure, parents sometimes advise their wards against learning some concept in schools. For

example, sex education, some culture ban student's attendance of schools during cultural activities at a certain period of year, students are often distracted from learning effectively during cultural activities at certain period of year and cultural belief encourages students' truancy.

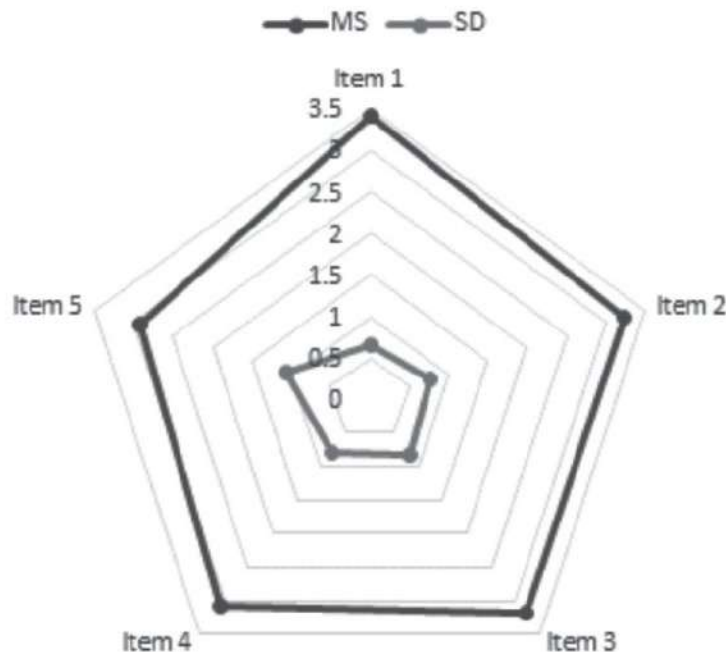


Figure 1- The standard deviation of entire items in table 1 range from 0.67 to 1.06, the Radial graph shows that the respondent shared the same opinion on perceived cultural factors contributing to

student's mass failure in Basic Technology in Junior Secondary Schools. This means they are very close in their responses to question item listed as factor responsible for mass failure in Basic technology.

**Table 4: Perceived socio-economic factors contributing to student's mass failure in Basic Technology in Junior Secondary Schools**

Item No	Statements	Mean Score	Standard Deviation	Remarks
1.	The parents can hardly afford textbooks utilize by the students to learn	3.54	0.74	Agreed
2.	Most parents can't employ lesson teacher to assist their wards in learning effectively and this affect their level of academic performance	3.47	0.62	Agreed
3.	Students due to their parents socio-economic status often engage in side trades that prevent them from learning	3.44	0.82	Agreed
4.	Students from poor homes can't afford instructional materials that can be used to learn	3.27	0.80	Agreed
5.	Students from homes with poor socio-economic status cant attend field trips and excursions that can help enhance their performance	3.25	0.69	Agreed
<b>Grand mean</b>		<b>3.39</b>		<b>Agreed</b>



The data presented in table 2 revealed that respondent agree with all the item with mean score ranging from 3.25 to 3.54. This signify that all the item listed in the table such as most parents cannot afford textbooks utilize by the students to learn, parents can't employ lesson teacher to assist their

wards in learning effectively, students from poor homes can't afford instructional materials that can be used to learn, students from homes with poor socio-economic status can't attend field trips and excursions that can enhance their performance and these affect their level of academic performance.

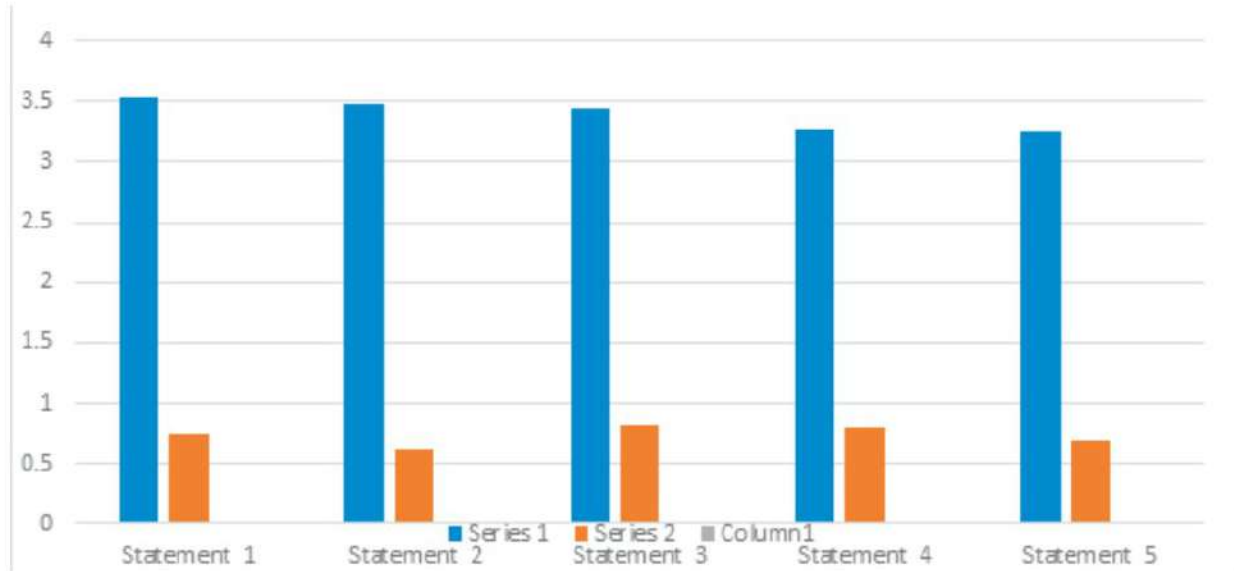


Figure 2 - The standard deviation of entire items in table 2 range from 0.62 to 0.74, the graph show that the respondent shared the same view on their reaction to perceived socio-economic factors contributing to student's mass failure in Basic Technology in Junior Secondary Schools. This means they are very close in their responses to

question item listed as factor responsible for mass failure in Basic technology.

### Research Question Three:

What are the perceived school-based factors contributing to student's mass failure in Basic Technology in Junior Secondary Schools?

**Table 3: Perceived school-based factors contributing to student's mass failure in Basic Technology in Junior Secondary Schools**

Item No	Statements	Mean Score	Standard Deviation	Remarks
1.	The school lack basic infrastructures and necessary equipment for learning	3.25	0.85	Agreed
2.	There are no laboratories in the schools and this influence the students academic achievement	3.25	0.85	Agreed
3.	The school has no library and this affect the level of students preparedness for test and examinations	3.23	0.78	Agreed
4.	The school has no instructional materials and this influence students level of understanding	3.21	0.87	Agreed
5.	The school has no recreational facilities and this influence the level of students academic performance	3.18	0.89	Agreed
<b>Grand mean</b>		<b>3.224</b>		<b>Agreed</b>

The data presented in table 3 revealed that respondent agree with all the item with mean score ranging from 3.18 to 3.25. This signify that all the item listed in the table such as lack of basic infrastructures and necessary equipment for learning, there are no laboratories in the schools, school has no befitting library which always leads to student mass failure in their examination.

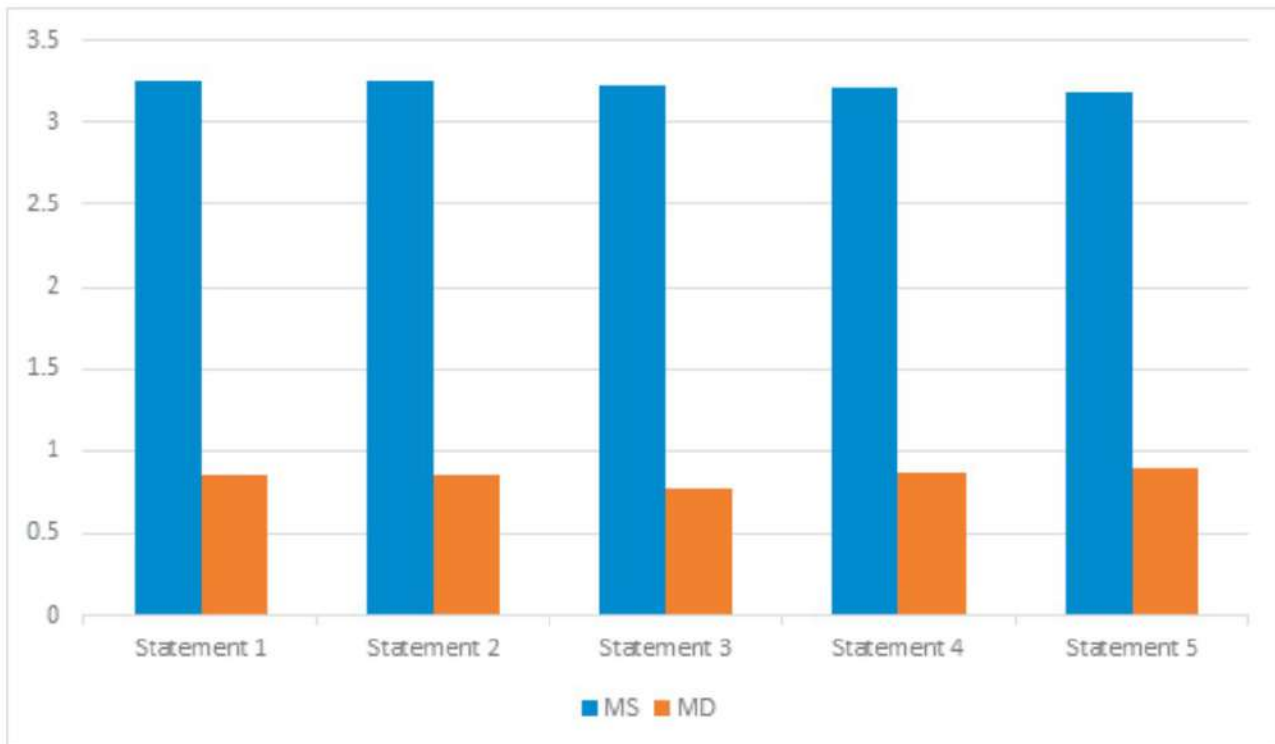


Figure 3 - shows that the standard deviation of entire items in table 3 range from 0.78 to 0.89. The line graph show that the respondent shared the same view on their reaction on perceived school-based factors contributing to student's mass failure in Basic Technology in Junior Secondary Schools. This means they are very close in their responses to question item listed as factor responsible for mass failure in Basic technology.

### Research Hypotheses

The following hypotheses was tested at 0.05 level of significance.

$H_{01}$  There is no significant difference between the perceived cultural factors contributing to student's mass failure and the academic performance of students in Basic

**Table 4: z-test analysis of the difference between the perceived cultural factors contributing to Students mass failure and the academic performance of students in Basic Technology.**

Variable	N	Mean	Std. Deviation	t	df	Sig	Remark
Teacher	162	70.8718	3.27092	.358	245	.510	Not rejected
Student	85	70.4096	3.09223				

**ns: Not Significant at point 0.05 alpha level**

The analysed result displayed in the Table 4 showed that there is no significant different between Teacher and Student. It was revealed that there was no significant difference between the perceived cultural factors contributing to student's mass failure and the academic performance of students in Basic Technology as ( $t = .358$ ;  $df = .248$ ;  $P > 0.05$ ).

The hypothesis was therefore not rejected in the light of the result since the significant value is greater than 0.05.

$H_{02}$  There is no significant difference between the perceived socio-economic factors contributing to student's mass failure and the academic performance of students in Basic Technology.

**Table 5: z-test analysis of the difference between the perceived socio-economic factors contributing to student's mass failure and the academic performance of students in Basic Technology.**

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>t</i>	<i>df</i>	<i>Sig</i>	<i>Remark</i>
Teacher	162	70.8721	3.27132	.233	245	.523	Not rejected
Student	85	70.6315	3.3218				

**ns: Not Significant at point 0.05 alpha level**

The analysed result displayed in the table 5 showed that there is no significant different between student and teachers. It was revealed that there was no significant difference between the perceived socio-economic factors contributing to student's mass failure and the academic performance of students in Basic Technology as ( $t = .233$ ;  $df = .248$ ;  $P > 0.05$ ). The hypothesis was therefore not rejected in the

light of the result since the significant value is greater than 0.05

**H<sub>03</sub>** There is no significant difference between the perceived school-based factors contributing to student's mass failure and the academic performance of students in Basic Technology.

**Table 6: z-test analysis of the difference between the perceived school-based factors contributing to student's mass failure and the academic performance of students in Basic Technology based on gender**

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>t</i>	<i>df</i>	<i>Sig</i>	<i>Remark</i>
Teacher	162	73.2111	3.3211	.209	245	.550	Not rejected
Student	85	72.3002	3.2114				

**ns: Not Significant at point 0.05 alpha level**

The analysed result displayed in the table 6 showed that there is no significant different between Teachers and Students. It was revealed that there was no significant difference between the perceived socio-economic factors contributing to student's mass failure and the academic performance of students in Basic Technology as ( $t = .209$ ;  $df = .248$ ;  $P > 0.05$ ). The hypothesis was therefore not rejected in the light of the result since the significant value is greater than 0.05.

### Discussion of Findings.

The finding on the research question one showed that respondents identified several cultural factors contributing to mass failure in Basic Technology in Junior Secondary Schools. These include restrictions on movement, parental advice against certain concepts such as sex education, bans on school attendance during cultural activities, distractions during cultural events, and cultural beliefs encouraging truancy. Previous studies such as Johnson & Smith (2018) corroborated the study in there that restrictions on movement, particularly during culturally significant periods, can disrupt students' learning routines and hinder academic performance. Also Smith et al. (2019) highlighted

that parental attitudes towards specific topics, such as sex education, can affect students' performance in examination as they were discouraged by parent to learn such a topic. More so, a study by Brown & Smith (2020) noted that distractions during cultural events can detract student from learning and focus, potentially contributing to mass failure. Therefore, the respondents' recognition of these cultural factors is in line with existing literature, emphasizing the need for culturally sensitive approaches to education that address these challenges to improve students' academic performance.

The finding on research question two showed that respondents identified socio-economic factors such as the inability of parents to afford textbooks, employ lesson teachers, students' engagement in side trades, lack of affordability for instructional materials, and inability to attend field trips as contributors to mass failure in Basic Technology in Junior Secondary Schools. These findings resonate with previous research. Such as a study by Anderson & Smith (2017) found that financial constraints often limit access to educational resources such as textbooks and supplementary tutoring, hindering academic performance. Similarly, Johnson et al.



(2018) highlighted that economically disadvantaged backgrounds may be compelled to engage in income-generating activities, leading to less time devoted to studying and lower academic performance. Furthermore, Williams & Jones (2020) emphasized the importance of experiential learning opportunities, such as field trips and excursions, in enhancing students' understanding and interest in academic subjects. The inability of students from poor socio-economic backgrounds to participate in such activities can thus impede their learning and contribute to mass failure.

The finding on research question three showed that respondents highlighted various school-based factors contributing to mass failure in Basic Technology in Junior Secondary Schools, including the lack of basic infrastructures and necessary equipment, absence of laboratories and libraries, inadequate instructional materials, and the absence of recreational facilities. Previous studies by Johnson et al. (2019) found that schools lacking essential facilities and resources tend to have lower student performance. Similarly, Smith and Brown (2020) emphasized the importance of libraries and laboratories in facilitating hands-on learning experiences and providing access to supplementary materials, which are crucial for students' understanding and retention of subject matter.

Also, Anderson (2018) highlighted the significance of recreational facilities in promoting students' well-being and engagement in school activities, which can positively impact academic performance of student. the respondents' recognition of these school-based factors in line with existing literature, underscoring the need for investments in educational infrastructure and resources to create conducive learning environments and improve students' academic performance. Similarly, a study by Brown et al. (2019) emphasized the importance of effective classroom management in creating a conducive learning environment and minimizing disruptions that can impede learning.

Moreover, research by Williams & Jones (2020) highlighted the correlation between teacher job satisfaction and student performance, indicating that dissatisfied teachers may be less motivated to invest time and effort in their teaching, ultimately affecting students' academic success. Therefore, the respondents' perceptions of teacher-based factors contributing to mass failure align with existing literature, emphasizing the crucial role of teacher quality and professional development in enhancing educational outcomes. Addressing these factors through targeted interventions and support

mechanisms can help improve teaching effectiveness and mitigate the impact of teacher-related challenges on students' academic performance.

### **Conclusions**

The study was designed to evaluate the causes of student mass failure in Basic Technology in Junior Secondary school in Ilorin Kwara State. Three research question was formulated to guide the research and three hypothesis which are tested at 0.05 level of significant. On this basis it was concluded that the respondent agreed with all the cultural factors contributing to student mass failure, all socio-economic factors contributing to student mass failure and all the school based factors contributing to student mass failure in Junior Secondary school in Ilorin metropolis.

### **Recommendations**

Based on the findings of the study, it was recommended that Government should;

1. Develop culturally sensitive educational policies and interventions that accommodate diverse cultural backgrounds and practices. Provide training for educators on culturally responsive teaching strategies to effectively address cultural influences on students' learning experiences.
2. Implement targeted socio-economic support programs to alleviate financial barriers to education. This could include providing financial assistance for textbooks, offering scholarships or subsidies for instructional materials, and facilitating access to supplementary educational resources for students from low-income families.
3. Invest in improving school infrastructure and resources to create conducive learning environments. This includes building and equipping laboratories and libraries, ensuring access to instructional materials, and providing recreational facilities to enhance students' overall learning experience.

### **References**

- Agu, C. (2016). Basic technology in the junior secondary school: An integrated approach. Publisher.
- Ajani, K. (2017). The multifaceted nature of education: A comprehensive perspective. *Journal of Educational Philosophy*, 45(3), 321-335.



- Ajayi, A. (2016). Academic performance: Understanding the outcomes of educational goals. *Journal of Education Research*, 24(2), 45-62.
- Anderson, L. (2017). The Impact of Socio-Economic Status on Educational Attainment. *Journal of Educational Research*, 25(3), 112-127.
- Anderson, L., & Smith, E. (2017). Financial Constraints and Academic Performance: A Comprehensive Study. *Educational Psychology Review*, 19(4), 235-248.
- Brown, A., & Jones, B. (2020). Cultural Activities and Academic Performance: An In-depth Analysis. *Journal of Cultural Psychology*, 15(2), 87-104.
- Bernard, M. (2017). Addressing low academic achievement: Strategies for creating a resilient and prosperous society. *Educational Psychology Review*, 29(3), 491-505.
- Brown, R., & Smith, J. (2018). Institutional Factors and Academic Achievement: A Comparative Study. *Educational Infrastructure Journal*, 22(1), 45-62.
- Colgate, R. (2014). Defining academic performance in educational institutions. *Journal of Educational Measurement*, 31(1), 45-62.
- Eze, J. (2016). Academic performance assessments and their impact on students' progress. *International Journal of Educational Research*, 42(3), 287-302.
- James, K. (2017). Education as a transformative and lifelong process: A holistic perspective. *Journal of Lifelong Learning*, 35(4), 567-580.
- Johnson, M., & Smith, E. (2018). Teacher Competencies and Student Achievement: An Empirical Investigation. *Teaching and Teacher Education*, 29(2), 132-147.
- Johnson, M., Smith, E., & Brown, R. (2019). School Infrastructure and Academic Achievement: A Cross-sectional Study. *Educational Facilities Journal*, 18(3), 145-160.
- Nnamdi, F. (2017). Challenges of academic performance in secondary schools: A multifaceted approach. *Journal of Educational Psychology*, 28(1), 89-104.
- Ogunjimi, I. (2013). Evaluation in education: A systematic approach to assessing effectiveness. *Educational Evaluation and Policy Analysis*, 25(3), 301-318.
- Ojo, S. (2016). The junior secondary school programme: Bridging primary and senior secondary education. *Journal of Secondary Education*, 15(2), 167-182.
- Pallant, J. (2020). *SPSS Survival manual: A Step by Step to Data Analysis Using IBM SPSS*. Routledge.
- Williams, K., & Jones, B. (2020). Teacher Job Satisfaction and Student Performance: An Investigation. *Journal of Educational Psychology*, 32(1), 45-60.