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List of contributors

The Impact of Generative AI in Personalized Learning on Students Learning Outcomes; Teachers Perception of Impact of AI in The 21st Century

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Abstract

This study explores the impact of generative AI integration in personalized learning on student learning outcomes, focusing on teachers' perceptions of AI's role in 21st-century education. A purposive sampling technique was used to survey 250 teachers, who provided insights on how AI influences educational environments. The study employed a descriptive research design of survey type. Primary mode of data collection was adopted using a researcher-structured questionnaire as the research instrument, which was validated, and reliability testing yielded a coefficient of 0.8 using the Spearman-Brown Prophecy Formula. Frequency count and percentage was employed to analyze the demographic data of the respondents while mean score, percentile and standard deviation were used to answer the research questions drawn for the study. The study revealed that teachers perceive generative AI in personalized learning as significantly enhancing student learning outcomes. Specifically, AI-generated personalized content was found to positively influence student engagement and motivation in the learning process. Additionally, the results indicate that teacher digital literacy skills are crucial to effectively implementing generative AI in personalized learning, impacting its success in improving learning outcomes. These findings suggest that investment in AI resources and teacher digital literacy training is essential to fully harness AI's potential in personalized learning and improve student success in the 21st-century classroom. This study further strengthens the knowledge on AI's transformative role in modern classrooms and its potential to support tailored educational experiences geared towards a learning outcome.

Keywords: Generative *AI, Teacher, Student, Impact, Learning outcomes, Perception, 21st-century*

Introduction

In the global world of today, technological innovation and advancement of artificial intelligence has penetrated every sector such as finance, health, business art, fashion and educational sector. In order to improve student understanding and influence learning outcomes, the teaching and learning process has changed as a result of artificial intelligence advancements. Educational facilitators now adopt artificial intelligence to help tailor their curriculum based on individual needs of their student. As AI technologies advance, it becomes increasingly evident how they might change the educational landscape (Yim & Su, 2024). According to Raja et al. (2024), artificial intelligence (AI) has previously unexplored possibilities to strengthen student performance, refining instructional methods, and personalizing learning. AI may provide targeted interventions and create a more engaging and productive learning environment by analyzing enormous volumes of educational information and customizing the educational experience to each student's requirements (Wang et al., 2024).

A revolution driven by AI is about to occur in the field of education. Learning might become more individualized thanks to this technology. Consider AI programs that evaluate a student's learning preferences, areas of strength, and shortcomings. The AI could use this data to customize learning materials, levels of difficulty, and even instructional strategies for every student (Pedro et al., 2019). Sasikala and Ravichandran (2024) opined that it may soon be commonplace to use AI-powered intelligent teaching programs that offer personalized guidance and instant feedback during the learning process. A type of artificial intelligence known as "generative AI" is used to create tailored learning materials that can be modified according to the needs and skill level of an individual students. Evidence that generative AI will be able to tailor learning materials to an individual specific strengths and learning choices by evaluating student data, such as learning style, performance evaluations, and engagement level (Gligorea et al., 2024). One notable advantage of using adaptive AI for tailored learning is that students would be able to handle and understand the material at the right level of difficulty based on their unique performance (Tapalova & Zhiyenbayeva, 2022). The advantages go beyond specific learners. Large volumes of educational data may be analyzed by AI, giving administrators and instructors insightful information. In the end, this data-driven strategy can enhance learning outcomes for everyone by informing educational policy, resource allocation, and instructional practices (Hora et al., 2017). Nevertheless it's crucial to keep in mind that AI is only a tool, and how well it works in the classroom will dictate how widely it is used. Educators can increase the likelihood of success by taking action early and providing concentrated assistance.

The successful integration of AI-driven tailored material in classrooms, which has a direct influence on student learning results, depends heavily on the digital literacy of teachers. Proficiency with technology is only one aspect of higher degrees of digital literacy. In a digital learning or work environment, it entails judiciously and critically managing information, cultivating teamwork and communication abilities, and producing outstanding higher order learning results (Lingga et al., 2022; Su, 2023). Ng, et al. (2023), opined that educational facilitators with strong digital literacy skills are better equipped to navigate, implement, and adapt AI technologies, making it possible to leverage AI's full potential in creating customized learning experiences. One primary issue is the disparity in teachers' familiarity and comfort with generative AI. Many educators lack adequate training on its applications, benefits, and limitations, which affects their confidence in utilizing these tools effectively. Without sufficient knowledge, teachers may either underutilize AI tools or avoid them altogether, depriving students of personalized learning pathways that could support academic improvement (Anurogo et al., 2023).

AI in the educational sector promises an exciting future. Its potential ability to improve learning outcomes is one of its most significant benefits. Students can better understand subjects when they get individualized training based on their unique strengths and shortcomings. Teachers may deliver focused interventions and make sure everyone realizes their full potential by using AI to identify kids who might require further support (Sasikala & Ravichandran, 2024). AI has the potential to greatly increase classroom productivity. According to Gökçearslan et al. (2024), Teachers may devote more time to the things that truly count, which include developing students and providing stimulating learning experiences by optimizing administrative tasks like attendance tracking and grading. AI can improve access to educational materials, guaranteeing that all students have easy accessibility to useful learning materials and tools. Dynamic and interactive material produced by generative AI engages students and improves the effectiveness, immersion, and engagement of education (Hartley, 2023). It has opened the door for a paradigm change in the way teachers create and present curricula. Teachers can abandon the standard method of teaching and adopt a student-focused paradigm provided they are able to provide varied and suitable learning resources (Ko et al., 2022). The use of generative AI into customized learning offers great promise for improving student results by providing individualized educational experiences, Teachers' views and impressions of this technology's use, however, have a significant influence on its impact and may either help or impede its acceptance and efficacy in the classroom (Lee & Song, 2024). Notwithstanding its promise, there are significant obstacles brought about by different teacher perspectives on generative AI, which might result in uneven application and less than ideal student learning outcomes (Kaplan-Rakowski et al., 2023).

Perception is the process by which people understand and make meaning of whatever sensory information they receive from their environment (Merleau-Ponty, 2004). It involves recognizing, organizing, and interpreting stimuli based on past experiences, beliefs, emotions, and knowledge. In a research context, studying perception helps to understand individuals' attitudes, beliefs, and biases toward specific subjects or phenomena, providing insights into how people may respond to or engage with new ideas, technologies, or environments. Positive perceptions among teachers often stem from AI's potential to boost student motivation and engagement by offering unique, adaptive content. AI’s ability to provide instant feedback and resources tailored to each student can help reduce learning gaps and promote continuous progress. Some teachers see AI as a way to save time on lesson planning and assessments, giving them more bandwidth to focus on student interaction and support. However, teachers' perceptions can vary based on their digital literacy skills. Educators with higher digital literacy are generally more open to integrating AI and can navigate its functions effectively, which makes them more likely to perceive AI as a beneficial addition to the classroom. In contrast, teachers with limited experience in digital tools may view AI integration as a challenge, potentially concerned about technical issues or the possibility of over-reliance on technology.

The utilization of generative AI in personalized learning has introduced transformative shifts in educational outcomes, promising tailored learning experiences that meet individual student needs. This technology adapts content based on student progress, comprehension levels, and learning preferences, allowing for dynamic and engaging learning environments that support varied paces and styles. Proponents argue that personalized AI-driven learning can improve engagement, deepen comprehension, and enhance retention, as students are presented with content suited to their unique learning profiles. Additionally, AI enables continuous feedback, helping students understand areas of improvement and fostering a sense of progression and accomplishment.

However, while the benefits are significant, there are also critical concerns. Overreliance on AI in educational settings may limit opportunities for critical thinking and interpersonal skills development, as students may become too dependent on the technology's guidance. Moreover, the personalization algorithms may unintentionally reinforce existing biases or limit students' exposure to diverse viewpoints if they narrow content based on past performance data. Privacy is another issue, as the vast amounts of personal data required for AI-driven customization raise concerns about data security and student autonomy (Vaza et al., 2024). Thus, while generative AI offers innovative solutions in personalized learning, these challenges need addressing to ensure its positive impact on learning outcomes is holistic and equitable. Thus, this study aims to assess teacher's perception on the impact of generative AI in personalized learning on students learning outcomes. The following research questions were drawn to assess teacher's perception on the study variables;

RQ1: Does generative AI integration in personalized learning environments impact student learning outcome?

RQ2: Does AI-generated personalized content influence student engagement and motivation in the learning process?

RQ3: Does teachers' digital literacy impact the effectiveness of generative AI personalized learning on student learning outcomes?

Methods

The study employed a descriptive survey research design. A customized questionnaire developed by the researcher was utilized as the primary instrument for data collection. The purposive sampling technique was adopted to select 250 teachers from Lagos State, Nigeria, ensuring that respondents were chosen based on their expertise and experience relevant to the research focus. The participants comprised experienced educators who integrated both conventional teaching methods and generative AI technologies to enhance learning outcomes. The questionnaire consisted of two sections: Section A gathered demographic information about the respondents, while Section B addressed the research questions using a four-point Likert scale (Strongly Agree = 4, Agree = 3, Disagree = 2, Strongly Disagree = 1). The instrument underwent a validation process, and reliability testing produced a coefficient of 0.80, calculated using the Spearman-Brown Prophecy Formula. Data analysis involved frequency counts and percentages to summarize demographic information. Mean scores and standard deviations were used to interpret the responses to the research questions, ensuring a robust understanding of the data.

Results

This section of the result presents the analysis of respondents' demographic data, focusing on key variables such as work experience, gender and age. The data were analyzed using frequency counts and percentages to provide a clear and concise summary of the respondents' characteristics.

Table 1: Frequency distribution of the study participant

S/N	Demographics	Frequency	Percentage (%)
1	**Age**		
	20-30 Years	86	34.4
	31-40 Years	95	38
	40 years and above	69	27
	Total	**250**	**100.0**
2	**Gender**		
	Male	132	52.8
	Female	118	47.2
	Total	**250**	**100.0**
3	**Work experience**		
	1-6 years	98	39.2
	7-11 years	103	41.2
	12 years and above	49	19.6
	Total	**250**	**100.0**

Sources: Field Survey, 2024

Table 1 reveals the age distribution of the respondents. A total of 86 participants (34.4%) were aged 20–30 years, 95 respondents (38%) fell within the 31–40 years range, and 69 individuals (27%) were aged 41 years and above. These findings indicate that the majority of the respondents were in the 31–40 years age group. Table also illustrates the gender distribution of the respondents, with 132 males (52.8%) and 118 females (47.2%). These results indicate that the majority of participants in the study were male. Furthermore, the Table also provides an overview of the respondents' work experience. It shows that 98 participants (39.2%) had 1–6 years of experience, 103 respondents (41.2%) had 7–11 years of experience, and 49 participants (19.6%) had more than 12 years of experience. These findings indicate that the largest proportion of respondents fell within the 6–10 years of work experience category.

Analysis of the Research Questions

RQ 1: Does generative AI integration in personalized learning environments impact student learning outcome?

Table 2: Mean Rating, Standard Deviation and percentile of Respondents on the impact of generative AI in personalized learning environments on student learning outcome?

S/N	Statements	Agree (SA) (A)	Disagree (D) (SD)	Mean Score	STD	Majo Rema
1.	I believe integrating generative AI into personalized learning improves students' overall academic performance.	218 (87.2%)	32 (12.8%)	3.50	0.56	(87.2 Agre
2.	Generative AI enhances students' ability to grasp complex concepts more effectively in a personalized learning environment.	233 (93.2%)	17 (6.8%)	3.76	0.59	(93.2 Agre
3.	The use of generative AI in creating individualized learning paths positively influences students' critical thinking skills.	236 (94.4%)	14 (5.6%)	3.79	0.66	(94.4 Agre
4.	The use of generative AI in creating individualized learning paths positively influences students' critical thinking skills.	229 (91.6%)	21 (8.4%)	3.68	0.63	(91.6 Agre
5.	I think generative AI's role in personalized learning environments prepares students better for future academic challenges.	207 (82.8%)	43 (17.2%)	3.32	0.59	(82.8 Agre

Table 4 provides the mean scores, standard deviations, and percentile distributions related to the impact of integrating generative AI into personalized learning environments on student learning outcomes. The data show that all items have mean scores above the midpoint of 2.50, with a majority percentage of 50% or higher, suggesting that most respondents agreed with the statements. Responses in the opposite direction were considered less significant. These findings indicate that the majority of participants recognize the positive impact of incorporating generative AI into personalized learning environments on student

learning outcomes. Thus, it can be concluded that most respondents believe that this integration enhances student performance.

RQ 2: Does AI-generated personalized content influence student engagement and motivation in learning process?

S/N	Statements	Agree (SA) (A)	Disagree (D) (SD)	Mean Score	STD	R
1.	AI-generated personalized content increases students' interest and participation in learning activities	207 (82.8%)	43 (17.2%)	3.32	0.68	(8 A
2.	Students are more likely to remain focused and attentive when engaging with AI-generated tailored learning materials.	211 (84.4%)	39 (15.6%)	3.25	0.54	(8 A
3.	AI-powered content that is tailored to each student encourages them to take charge of their education.	223 (89.2%)	27 (10.8%)	3.89	0.59	(8 A
4.	Generative AI content fosters curiosity and encourages students to explore beyond the standard curriculum.	230 (92%)	20 (8%)	3.68	0.61	(9 A
5.	I believe AI-personalized materials can enhance classroom dynamics due to students' enthusiasm.	231 (92.4%)	15 (7.6%)	3.77	0.64	(9 A

Table 3: Mean Rating, Standard Deviation and percentile of Respondents on the influence of AI-generated personalized content on student engagement and motivation in learning process

Table 3 provides an analysis of the mean scores, standard deviations, and percentile remarks concerning the influence of AI-generated personalized content on student engagement and motivation in the learning process. The results indicate that all items have mean scores exceeding the midpoint of 2.50, with a majority percentage of 50% or higher. This suggests that most respondents agreed with the statements presented. Responses opposing this view were considered less significant. These findings highlight that the majority of participants acknowledge the positive influence of AI-generated personalized content on enhancing student engagement and motivation in learning. Therefore, it can be concluded that the teacher perceived that integration of such content has a significant impact on students' active participation and enthusiasm for learning.

RQ 3: Does teachers' digital literacy impact the effectiveness of generative AI personalized learning on student learning outcomes?

Table 4: Mean Rating, Standard Deviation and percentile of Respondents on the impact of teachers' digital literacy on the effectiveness of generative AI personalized learning on student learning outcomes?

S/N	Statements	Agree (SA) (A)	Disagree (D) (SD)	Mean Score	STD	Major Remar
1.	A teacher's ability to effectively use AI tools significantly impacts the success of personalized learning outcomes.	245 (98%)	5 (2%)	3.22	0.74	(98%) Agreed
2.	Lack of digital literacy among teachers limits the potential benefits of generative AI in personalized learning.	247 (98.80%)	3 (1.2%)	3.98	0.56	(98.8% Agreed
3.	Proficiency in digital technologies enables educators to optimize the advantages of artificial intelligence in the classroom.	244 (97.60%)	6 (2.4%)	3.79	0.66	(97.6% Agreed
4.	Continuous professional development in AI tools enhances teachers' confidence in utilizing AI-driven learning solutions.	241 (96.40%)	9 (3.6%)	3.87	0.65	(96.4% Agreed
5.	For generative AI to be successfully incorporated into education, I think it is imperative that teachers receive training in digital literacy.	243 (97.20%)	7 (2.8%)	3.32	0.59	(97.2% Agreed

Table 4 provides an analysis of the mean scores, standard deviations, and percentile remarks regarding the impact of teachers' digital literacy on the effectiveness of generative AI-driven personalized learning in improving student learning outcomes. The data reveal that all items have mean scores above the midpoint value of 2.50, with a majority percentage exceeding 50%. This indicates that most respondents agreed with the statements. Opposing responses were minimal and deemed less significant. These findings suggest that the majority of participants recognize the crucial role of teachers' digital literacy in enhancing the effectiveness of generative AI-based personalized learning systems in achieving positive student outcomes. Therefore, it can be inferred that teachers' proficiency in digital skills significantly contributes to the success of such innovative learning approaches.

Discussion of Findings

Table 2 present the result on the impact of generative AI into personalized learning environments on student learning outcome. The result showed that the integration of generative AI into personalized

learning environments impact student learning outcomes. A possible reason for this finding is that teacher understands that generative AI can tailor content and instruction to meet each student's unique needs, abilities, and learning pace. Teachers recognize that by customizing learning materials, AI can address specific knowledge gaps, reinforce concepts in areas where students struggle, and offer advanced material for those who excel. This level of personalized support may lead to higher engagement and understanding, ultimately improving learning outcomes. The findings of Li et al. (2024) corroborate with findings of this research, their study showed that generative AI technology can maximize learning outcomes, boost student engagement and happiness, and dramatically increase learning efficiency. It has been demonstrated that this degree of customization promotes greater efficacy, relevance, and engagement, which leads to better learning outcomes (Chanaa et al, 2018). According to Elmourabit et al.'s study from 2024, generative AI has the ability to enhance learning and evaluation procedures, as long as instructors are actively involved. The use of ChatGPT, an AI chatbot, to improve online student participation in sociology and politics education was investigated by Al Yakin et al. (2023).

According to the study, ChatGPT produced excitement and a high degree of student involvement. In particular, ChatGPT helped students with tasks like brainstorming, debates, analysis, and inspiration. The impact of adaptive learning technology on student accomplishment in many educational situations has been the subject of meta-analyses. According to the study, students who used adaptive learning systems outperformed those who received traditional teaching by an average of 0.35 standard deviations in their learning outcomes (Kulik & Fletcher, 2016). Blessing's report (2024) According to a research done at Arizona State University, AI-enabled adaptive learning significantly improved student performance and retention in arithmetic classes. A significant improvement in pass rates and a 25% rise in student retention were the results of the university's adaptive system, which employs AI to modify course contents in real-time. Guettala (2024) The paper demonstrates concrete advantages of generative AI integration through a thorough examination of a few chosen case studies, such as enhanced learner's participation, better grades, and quicker skill development. Even while students who used AI-generated study materials saw improvements in their test scores and grades, some of them did not profit from them (Binhammad et al. 2024). These are a few outcomes that highlight how crucial it is to take into account things like the learners enthusiasm, previous experience, and the caliber of the algorithm being used while adopting generative AI in the classroom.

Table 3 presents the result on the impact of generative AI into personalized learning environments on student learning outcome. The result showed that AI-generated personalized content affects student engagement and motivation in the learning process. One possible reason for the results of this study is that AI-supported customized learning can boost student motivation by making lessons or lectures more interesting and relevant.. Teachers recognize that when students feel that their learning journey is tailored to their interests and skill levels, they are more likely to engage fully, which leads to improved academic performance. The findings is corroborated with Pesovski's (2024) research, students found generative AI in a variety of learning materials to be highly engaging. Even though students were mostly using the conventional version of the course materials, they thought this method was interesting and inspiring. According to Owoseni's study (2024), when AI is applied properly, it improves education's adaptability, engagement, and inclusivity. The study also emphasizes that while AI cannot replace teachers, it may be a useful tool in the pursuit of more dynamic and responsive teaching and learning environments. In contrast to students in conventional classroom settings, Aleven et al. (2016) discovered that students utilizing an AI-powered adaptive learning system had noticeably better degrees of enthusiasm and engagement.

Table 4 presents the result on the impact of teachers' digital literacy on the effectiveness of generative AI personalized learning on student learning outcomes. The result showed that majority of the respondents

agreed that teacher's digital literacy impact the effectiveness of generative AI personalized learning on student learning outcomes. A possible explanation to this is that teachers with strong digital literacy skills are better equipped to navigate and utilize generative AI tools effectively. They can understand the full range of features available, select appropriate tools for different learning scenarios, and customize AI-driven resources in ways that truly benefit students. Without these skills, teachers might underutilize or misuse AI capabilities, reducing its potential impact on learning outcomes. Digital literacy enables teachers to fine-tune and personalize the content generated by AI systems. Teachers who are digitally skilled can better judge the appropriateness, accuracy, and relevance of AI-generated materials and incorporate them to fit the specific needs and levels of their students. This results in more meaningful and impactful personalized learning experiences that are aligned with students' goals. The results of this study are comparable to those of Chen, Chen, and Lin (2020), who found that AI technologies may be used to finish time-consuming administrative duties related to teaching and learning without compromising task quality. Thus, by adopting AI technology to save time on these tasks, instructors may concentrate on satisfying the learning needs of their pupils. According to research by Chiu, Moorhouse, et al. (2023) and Yang et al. (2020), interactions between humans and robots or chatbots make students who have low self-confidence or struggle academically feel less embarrassed and more courageous when they face difficulties. Students' academic performance is greatly enhanced by this (Kim et al., 2021). Kadaruddin's (2023) findings and talks highlight several educational advantages of generative AI. By utilizing Generative AI, educators may provide interactive material, tailor learning experiences, and enable adaptive evaluations. Learner engagement and information retention may be improved by this tailored approach.

The research findings have an important ramification for teacher's preparation, legislation, and educational practice. The positive impact of generative AI on personalized learning outcomes indicate that schools need to think about integrating AI-driven tools into their curricula to foster more tailored learning experiences. Schools and policymakers can leverage this insight to allocate resources for the implement/tation of artificial intelligent in to school settings, which can be tailored to individual students' needs, thereby improving overall learning effectiveness. The significance of content customization in contemporary education is demonstrated by the observed impact of AI-generated tailored material on student motivation and engagement. According to this realization, AI has the ability to make a big difference in creating a more engaging, pertinent, and encouraging learning environment. Educational software developers should prioritize AI tools that facilitate adaptive content delivery and engage students based on their unique preferences and learning progressions. Furthermore, the finding that teacher digital literacy skills affect the effectiveness of generative AI underscores the need for targeted professional development in AI literacy. Teacher training programs should prioritize digital literacy and AI-specific skill-building to ensure educators can confidently integrate and leverage AI tools in personalized learning. By addressing this need, training institutions and school administrators can help teachers maximize AI's potential benefits on student outcomes.

Conclusion

This research reflects on the positive perceptions that teachers hold toward the integration of generative AI in personalized learning environments. The results indicate that generative AI can substantial improve student learning outcomes, improve engagement, and foster motivation through personalized content delivery. However, teachers' proficiency with AI and digital literacy is of necessity for effective deployment of these AI-driven solutions in classrooms. In order to fully utilize AI in personalized learning, there is a clear need for strategic investment in both AI tools and teacher training initiatives focused on AI competencies. The study's findings reflect on the importance of artificial intelligence in the

educational sector by showcasing how crucial teacher preparedness is to the successful implementation of AI-driven solutions that enhance student learning outcomes in classrooms of the twenty-first century.

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PATTERN OF URINARY SCHISTOSOMIASIS AND ASSOCIATED RISK FACTORS AMONG SCHOOL-AGED CHILDREN IN OYO STATE, NIGERIA

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Abstract

Schistosomiasis, also referred to as bilharziasis, poses a significant global public health threat, especially in sub-Saharan Africa. The predominant species contributing to schistosomiasis include Schistosoma haematobium, which is widely distributed in Sub-Saharan Africa causing urinary schistosomiasis. Additionally, Schistosoma mansoni, S. intercalatum, S. japonicum, and S. mekongi are accountable for intestinal schistosomiasis. The elevated occurrence of urinary schistosomiasis is attributed to various factors, including inadequate sanitation, poverty, lack of awareness, restricted access to health facilities, and limited availability of social amenities. Therefore, study examined the pattern of urinary schistosomiasis and associated risk factors among school-aged children in Oyo State, Nigeria.

The study is a Retrospective study that deployed the use of secondary data. The secondary data collected was based on puporsive sampling selection of all LGAs to ensure a representative and diverse sample from the population of school-aged children in Oyo State. This design is chosen to comprehensively explore the pattern of urinary schistosomiasis and identify associated risk factors among school-aged children in Local Government Areas (LGA) of Oyo State, Nigeria, covering the period from 2020 to 2023. data was collected on Oyo state schistosomiasis disaggregation data (2020-2022) for all LGA or endemic LGA (LCDA) affected. And also randomly collated data of year 2020- 2022 from PHCs record for specific data on socio-demographic characteristics, and number of cases examined.

The results identified Local government area provided insight to the disease distribution and intensity by age group and gender for SAC in the surveyed area. There are 33 LGAs in Oyo state but about 26 LGAs had confirmed cases of Schistosomiasis. Some wards within the same LGA that have wards with low endemicity are highly endemic. The findings on schistosomiasis revealed that the overall prevalence was within the low-risk range (74%) and moderate risk range (25.2%). Therefore, it can be inferred that gender, age, education level, occupation status were independent factors for pattern of urinary schistosomiasis among school-aged children (SAC). The prominent causes for increasing endemicity is contamination of fresh water through the continuous visit of herds of cattle in rural area.

In conclusion, It was inferred that gender, age, education level, occupation status were independent factors for pattern of urinary schistosomiasis among SAC. The prominent causes for increasing endemicity is contamination of fresh water through the continuous visit of herds of cattle in rural area. It

was recommended that Oyo state ministry of health should take actions on Improving and Maximising community participation through multi-sectoral strategy, advocacy, and mobilisation.

Keywords: Prevalence,Schistosomiasis, Schistosoma haematobium, School-aged children,Urinary.

Introduction

Schistosomiasis, also referred to as bilharziasis, is a parasitic disease transmitted through water, caused by parasites belonging to the genus Schistosoma. It poses a significant global public health threat, especially in Sub-Saharan Africa.(Adebayo, 2022). Consequently, the transmission of schistosomiasis is intricately linked to social-ecological sy stems, including conditions of poverty and residing in close proximity to open freshwater bodies (Angora et al., 2019). The eggs of schistosomes are expelled by humans through feces or urine. Upon hatching, miracidia infect specific snails, leading to the production of cercariae. Schistosome cercariae penetrate the intact skin of humans during every day domestic activities, such as washing clothes or dishes, as well as recreational pursuits like bathing and swimming in unprotected open freshwater bodies.Worldwide, approximately 239 million individuals are presently afflicted by this condition, with the associated burden exceeding 3.5 million disability-adjusted life years (DALYs) (Abubarkar et al., 2022).

Recent findings indicate a continuous rise in infections across all geographical zones in the country, especially among schoolchildren, due to their tendency to participate in household tasks and regular exposure to polluted water, such as communal swimming and fishing in snail-infested water bodies after school, communities in Nigeria often partake in these activities (Kabuyaya et al., 2019). Epidemiological investigations in various endemic communities have linked persistent infections to factors such as regular agricultural practices, human behavior, and unsuccessful water projects designed to fulfill the community's needs.

S. haematobium is accountable for various infections, including hematuria, dysuria, nutritional deficiencies, and growth retardation (Mansur, Abubakar, & Hassan, 2020). The elevated occurrence of urinary schistosomiasis infections in Nigeria and other sub-Saharan regions, akin to other parasitic infections, is linked to factors such as the absence of safe drinking water, insufficient sanitation, poverty, and limited awareness of infection risks, particularly in rural areas (Abubakar, Wabi, Gagman, & Aminu, 2020; Mansur, Abubakar, & Hassan, 2020). Despite the recognized hazards and the prevalent incidence of urinary schistosomiasis in specific regions of Nigeria, there is a dearth of information on this infection in the present study area. Hence, this retrospective study was undertaken to investigate the pattern of urinary schistosomiasis and the associated risk factors among school-aged children in Oyo State.

Schistosomiasis, a clandestine yet profoundly destructive parasitic ailment, afflicts more than 250 million individuals globally, imposing an estimated burden of 1.4 million disability-adjusted life years (DALYs) in the year 2017 (Kyu et al., 2018; McManus et al., 2018). The disease claims the lives of over 200,000 individuals annually. Schistosomiasis prevalence and morbidity is highest among schoolchildren, adolescents and young adults . Thus, the negative impacts on school performance and the debilitation caused by untreated infections demoralize both social and economic development in endemic areas .(Ojo et al., 2021)

Nigeria has the greatest number of cases of schistosomiasis worldwide , with about 29 million infected people, among which 16 million are children, and about 101 million people are at risk of schistosomiasis . In 1988, the Federal Ministry of Health (FMOH), in collaboration with the National Schistosomiasis Control Program (NSCP), deliberated on the possibility of bringing down the prevalence by 50% within 5 years in operational areas . However, these efforts were hampered by the lack of baseline data on the distribution of the disease in a broad scale. According to the Nigeria master plan for NTDs 2013-2017, out of the 37 states of Nigeria, mapping and baseline surveys on schistosomiasis have been conducted in a total of 19 states, all located in southern and western parts of Nigeria, so that schistosomiasis has been completely mapped in only 9 of those states 13 . Apart from several reports on the prevalence of schistosomiasis, there is a scarcity of research on the risk factors associated with this infection in the majority of the federation, particularly in Oyo State. (WHO,2020)

School-age children present an optimal demographic for the examination of urinary schistosomiasis within endemic communities. This is attributed to their well-documented behaviors characterized by suboptimal hygiene practices and engagement in water-related activities, factors that significantly elevate the susceptibility to parasitic infections. These habits, such as inadequate hygiene and recreational water activities, notably increase the likelihood of exposure to schistosoma parasites, making this age group particularly relevant for an in-depth investigation (Umoh et al., 2020). These habits not only expose them to the risk of schistosoma infection but also contribute significantly to the perpetuation of the disease within the community. As such, a focused examination of this vulnerable demographic is imperative for understanding the intricate dynamics of the disease transmission and its impact on the health of the community. This study employs the use of the Health Belief Model (HBM) to extensively elucidate the issue surrounding the prevalence, pattern and associated risk factors leading to the infection

This study holds paramount significance in the realm of public health, particularly for the selected Local Government Areas (LGA) of Oyo State. By delving into the pattern of urinary schistosomiasis and its associated risk factors among school-aged children, the research aims to offer invaluable insights that can directly inform and shape public health interventions. Tailoring measures to the specific characteristics and needs of selected LGAs is a crucial aspect, as the findings will guide the development of community-specific interventions to curtail the prevalence of urinary schistosomiasis. Prioritizing school-aged children as the focal demographic acknowledges their heightened vulnerability due to behaviors such as poor hygiene and engagement in water-related activities. Through shedding light on the impact of schistosomiasis on this age group, the study aims to pave the way for targeted health education programs and interventions aimed at safeguarding their well-being. Furthermore, the research contributes to the existing body of knowledge by addressing the dearth of information on urinary schistosomiasis in the study area, laying the groundwork for future research endeavors and evidence-based policymaking. Ultimately, this study aspires to offer evidence that guides policymakers in formulating effective public health policies, thereby advancing the collective effort to combat urinary schistosomiasis in LGAs and contributing to the broader global health discourse.

Research Design

The research design selected for this study was a retrospective study that deployed secondary data. This design chosen to explore the pattern of urinary schistosomiasis and identify associated risk factors among school-aged children in Local Government Areas (LGA) of Oyo State, Nigeria, covering the period from 2020 to 2023. The study population comprises all vulnerable age group with special focus on school-aged

children, ranging from 6 to 16 years old, who are actively enrolled in formal education within All LGA during a period from 2020 to 2022.

Sample size determination

The sample size was based on secondary data collected. The first data is on Oyo state schistosomiasis disaggregation data (2020-2022) for all LGA affected. The second data revolves around randomly collated data of year 2022 from PHCs record for specific data on socio-demographic characteristics, and number of cases examined. The data collected was based on puporsive sampling technique selection of All LGAs to ensure a representative and diverse sample from the population of school-aged children in Oyo State.

Method of data collection and Data Analysis

Data collection involved a combination of secondary data from NTDs unit, selected PHC centres on Schistosomiasis across all LGAs in Oyo state. Trained research assistants and healthcare professionals were deployed in collating data from the field. A letter of consent and approval to collate data was presented to the Oyo state Primary Healthcare board, Ibadan.

The data collected for the study was collated, entered and coded using the Statistical Product for Social sciences (SPSS) version 23. The data was cleaned by running a frequency analysis on each item and checking responses to ensure that the values were accurately coded. Missing data were recoded and treated as missing values in the software. Data analysis encompassed descriptive statistics to determine the prevalence of urinary schistosomiasis. Inferential statistics, such as chi-square tests, and logistic regression was employed to identify associations between risk factors and schistosomiasis prevalence. Statistical software which SPSS version 23 was be utilized for data analysis.

Ethical Consideration

For this study, Ethical approval was obtained from (Babcock University's Health Research Ethics Committee (BUHREC) and the relevant state ministries of health to obtain ethical approval before the study can be conducted. ensuring adherence to ethical guidelines outlined in the Declaration of Helsinki, that is, permission was gotten from the PHC board of Oyo state.

Results

Number of LGA with confirmed cases of Schistosomiasis

The Local government areas with the highest number of wards having confirmed cases of schistosomiasis are Ibarapa, Ibadan south and Ogbomosho based on the final data for 2023. There are also LGA with just one ward (Ogo Oluwa and Akinyele) have a confirmed case while the other wards have no cases recorded such as Afijio and Ogo Oluwas LGAs. Having just one ward does not imply a low endemicity rather the number of infected people in a given area and time compare with the total number examined determined that (see Figure 4.1).

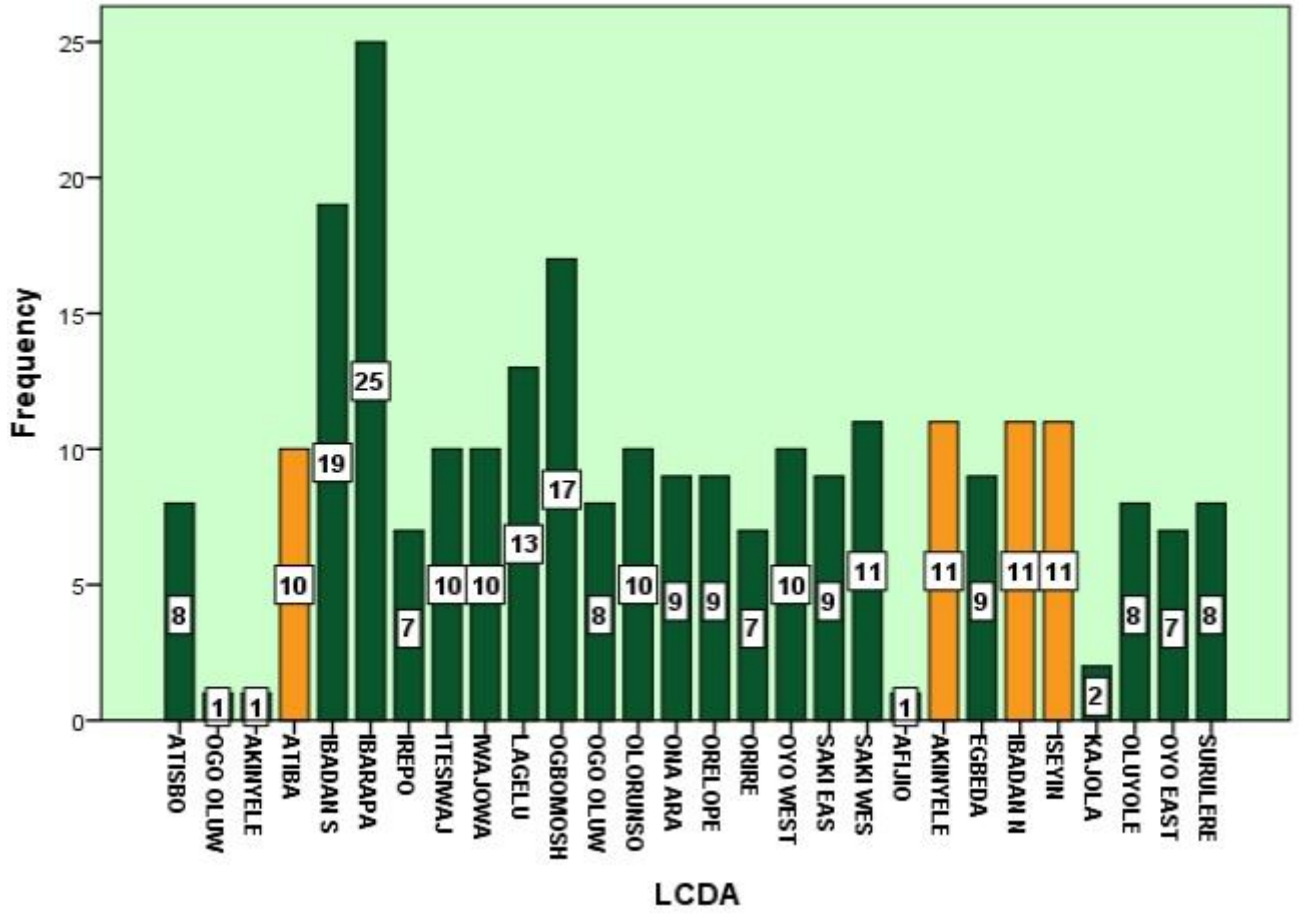

Figure 4.1: LGA with confirmed cases of Schistosomiasis

Endemicity Category

According to Figure 4.2, the endemicity of the local government area was identified for each ward. Though Ibarapa has the highest number of wards with cases of schistosomiasis, the endemicity in each of this political ward is mostly low which implies <10% by parasitological methods of urogenital schistosomiasis. Similar trend is also observed in Ibadan south LGA. Saki west and east are the LGAs that has more moderate endemicity of >=10% but <50% by parasitological methods of urogenital schistosomiasis in more political ward than any other LGA. While Ogo Oluwa LGA and Atisbo LGA showed a high endemicity some areas which is >=50% by parasitological methods of urogenital schistosomiasis.

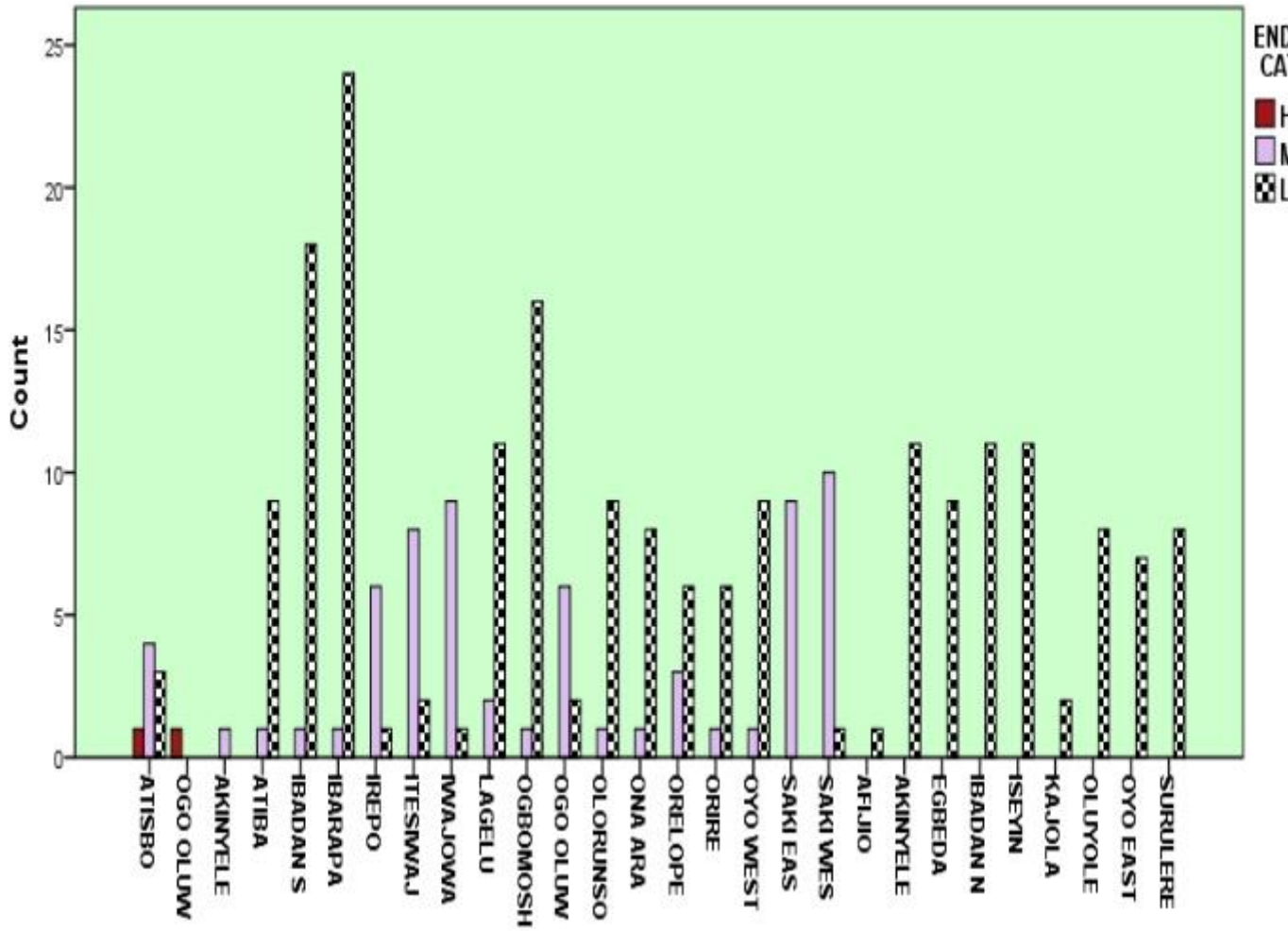

Figure 4.2: Schistosomiasis endemicity category of wards in LGA

Level of endemicity in wards across all LGA

Table 4.1. revealed that 50% of the ward in Atisbo LGA has a moderate level of endemicity or intensity of infected individuals in wards while 12.5% of the ward has High endemicity (≥50% by parasitological methods). It is evident that Afijio, Akinyele, Egbeda, Ibadan north, Iseyin, Kajola, Oluyole, Oyo East, and Surulere LGA have a low Schistosomiasis endemicity (<10% by parasitological methods of urogenital schistosomiasis). Majority of the wards in Itesiwaju, Iwajowa, Ogo Oluwa, Saki East and Saki West LGA/LCDA are faced with moderate endemicity (≥10% but <50% by parasitological methods).

Table 4.1: Percentage of endemicity individuals in wards across all LGA

Ward endemicity (Low-High) within each LGA [N (%)]		Endemicity of Schistosomiasis			Total
		Low (<10% by parasitological methods)	Moderate (≥10% but <50% by parasitological methods)	High (≥50% by parasitological methods)	
ATISBO	Ward within LCDA	3(37.5%)	4(50.0%)	1(12.5%)	8(100%)
OGO OLUW	Ward within LCDA	0	0	1(100.0%)	1(100%)
AKINYELE	Ward within LCDA	0	1(100.0%)	0	1(100%)
ATIBA	Ward within LCDA	9(90.0%)	1(10.0%)	0	10(100%)
IBADAN S	Ward within LCDA	18(94.7%)	1(5.3%)	0	19(100%)
IBARAPA	Ward within LCDA	24(96.0%)	1(4.0%)	0	25(100%)
IREPO	Ward within LCDA	1(14.3%)	6(85.7%)	0	7(100%)
ITESIWAJ	Ward within LCDA	2(20.0%)	8(80.0%)	0	10(100%)
IWAJOWA	Ward within LCDA	1(10.0%)	9(90.0%)	0	10(100%)
LAGELU	Ward within LCDA	11(84.6%)	2(15.4%)	0	13(100%)
OGBOMOSH	Ward within LCDA	16(94.1%)	1(5.9%)	0	17(100%)
OGO OLUW	Ward within LCDA	2(25.0%)	6(75.0%)	0	8(100%)
OLORUNSO	Ward within LCDA	9(90.0%)	1(10.0%)	0	10(100%)
ONA ARA	Ward within LCDA	8(88.9%)	1(11.1%)	0	9(100%)
ORELOPE	Ward within LCDA	6(66.7%)	3(33.3%)	0	9(100%)
ORIRE	Ward within LCDA	6(85.7%)	1(14.3%)	0	7(100%)
OYO WEST	Ward within LCDA	9(90.0%)	1(10.0%)	0	10(100%)
SAKI EAS	Ward within LCDA	0	9(100%)	0	9(100%)
SAKI WES	Ward within LCDA	1(9.1%)	10(90.9%)	0	11(100%)
AFIJIO	Ward within LCDA	1(100%)	0	0	1(100%)
AKINYELE	Ward within LCDA	11(100%)	0	0	11(100%)
EGBEDA	Ward within LCDA	9(100%)	0	0	9(100%)

IBADAN N	Ward within LCDA	11(100%)	0	0	11(100%)
ISEYIN	Ward within LCDA	11(100%)	0	0	11(100%)
KAJOLA	Ward within LCDA	2(100%)	0	0	2(100%)
OLUYOLE	Ward within LCDA	8(100.0%)	0	0	8(100%)
OYO EAST	Ward within LCDA	7(100%)	0	0	7(100%)
SURULERE	Ward within LCDA	8(100.0%)	0	0	8(100%)
Total	Ward within LCDA	194(74.0%)	66(25.2%)	2(0.8%)	262(100%)

Three (3) years prevalence rate of schistosomiasis in each LGA/LCDA

Table 4.1a is an extension of table 4.1 because it shows the prevalence rate of schistosomiasis for each of the LGA/LCDA in Oyo state with addition of the trend since 2020. The table 4.1a revealed an increase in prevalence pattern of schistosomiasis from 2020 to 2021, and 2021 to 2022. Lagelu LGA showed the highest prevalent rate for schistosomiasis in 2020 while Afijio LGA recorded the highest prevalent rate in 2021 and also in 2022.

Table 4.1a: Table on Prevalent rate over the year-2020 to 2022

	Prevalent level	2020	2021	2022
1	AFIJIO	28.7011	29.4220	30.1566
2	AKINYELE	28.7004	29.4186	30.1525
3	ATIBA	28.6992	29.4173	30.1535
4	ATISBO	28.7009	29.4175	30.1529
5	EGBEDA	28.6992	29.4185	30.1527
6	IBADAN N.E.	28.6993	29.4176	30.1526
7	IBADAN SOUTH	28.7005	29.4176	30.1534
8	IBARAPA	28.7004	29.4178	30.1530
9	IREPO	28.6990	29.4156	30.1538
10	ISEYIN	28.7009	29.4178	30.1534
11	ITESIWAJU	28.6999	29.4175	30.1541
12	IWAJOWA	28.6992	29.4171	30.1511
13	KAJOLA	28.7009	29.4185	30.1543
14	LAGELU	28.7022	29.4182	30.1551
15	OGBOMOSHO	28.6988	29.4152	30.1506
16	OGO OLUWA	28.7019	29.4193	30.1526
17	OLORUNSO	28.6997	29.4181	30.1527
18	OLUYOLE	28.7018	29.4179	30.1535
19	ONA ARA	28.6988	29.4168	30.1532
20	ORELOPE	28.7021	29.4183	30.1544
21	ORIRE	28.6997	29.4172	30.1532
22	OYO EAST	28.6963	29.4143	30.1514
23	OYO WEST	28.7010	29.4182	30.1548
24	SAKI EAST	28.7001	29.4169	30.1536
25	SAKI WEST	28.6996	29.4174	30.1525
26	SURULERE	28.7002	29.4182	30.1537

Discussion of Findings

The results of the Schistosomiasis epidemiological data in the identified Local government area provided insight to the disease distribution and intensity by age group and gender for SAC in the surveyed area. There are 33 LGAs in Oyo state but about 26 LGAs had confirmed cases of Schistosomiasis. Some wards within the same LGA that have wards with low endemicity are highly endemic. The findings on schistosomiasis revealed that the overall prevalence was within the low-risk range (74%) and moderate risk range (25.2%). For instance, majority of the wards in LGA/LCDA are faced with low and moderate endemicity. The finding of this present survey agrees with other studies. (Kefford and Nugegoda, 2016), which revealed that most LGAs had moderate risk for states bordering Benue State where the infection was also moderate. The low prevalence in Ekiti State could be explained by the deworming programme for schistosomiasis which was launched in 2010 although treatment has not been consistent over the years.

In this research study it was revealed that the prevalence of infection in males are higher compare to prevalent rate of female. There was a statistically significant association with schistosomiasis infection by gender. Prevalence of schistosomiasis across education level for School age Children shows is higher among those with no education. However, there is no significance difference between different category of educational level and prevalence of schistosomiasis. Findings of analysis showed that male gender, age group of 10-14, no education status, childhood status in terms of occupation are likely to be infected with urinary schistosomiasis school-aged children (SAC). The study of Ngong et al (2021) affirmed that UTIs caused by Schistosoma haematobium and bacteria, respectively, are highly prevalent among children in tropical regions.

The water bodies often are the only source of water for domestic uses and also serve as social centres for the communities. Dams and other freshwater bodies have been implicated in epidemiology of schistosomiasis in Nigeria and Africa (Steinmann et al., 2006). Nigeria is still endemic for schistosomiasis and scale-up provision of infrastructure especially potable water may reduce contact with infected waters and further support the elimination programme of the government. The prevalent nature of schistosomiasis in Nigeria is also associated with poor infrastructure and unsanitary habits. The presence of multiple infections with these worms in school age children has been observed in similar studies globally including Nigeria (Ojurongbe et al., 2014). These impose high burden on the infected pupils causing chronic morbidity, cognitive impairment and school absenteeism (Lobato et al., 2012). By implication of the findings of this survey for treatment intervention for schistosomiasis at the LGAs' level is to guide aggressive creations of more resources at primary level to tackle the increasing endemicity of schistosomiasis using educational, services and regulatory approaches in Oyo state.

Conclusion

This research study with the main aim to comprehensively examine the pattern of urinary schistosomiasis and identify associated risk factors among school-aged children in Oyo State, Nigeria revealed an increasing prevalent rate since 2020. Though Ibarapa has the highest number of wards with cases of schistosomiasis, while Afijio LGA recorded the highest prevalent rate in 2021 and also in 2022. It can be inferred that gender, age, education level, occupation status were independent factors for pattern of urinary schistosomiasis among school-aged children (SAC). The prominent causes for increasing

endemicity is contamination of fresh water through the continuous visit of herds of cattle in rural area. As the cattle drink from the water or crosses water, they pass out excretes that may contain eggs of disease-causing organism. Others are ignorance and lack of borehole for safe water cause. Major water contact activities are due to playing, swimming, crossing of water, washing, among others. Urgent government and community driven programmes are needed because area that were not endemic are now faced increasing number of cased. Such interventions should use approaches that are educational, services and regulatory in nature.

Recommendations

1. School aged children should be monitored at school and parent should be encouraged to monitor and ensure children hygiene and access to water

2. Government should Provide proper documentation of the prevalence of cases, transmission, storing, and analysis of data on schistosomiasis and STH interventions in the future at the FMOH office.

2. Improved Maximising community participation through multi-sectoral strategy, advocacy, and mobilisation for the reduction of the risk factors of schistomasis

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THE PREDICTIVE CAPACITY OF PERSONALITY FACTORS, JOB STRESS AND COPING STYLES ON JOB PERFORMANCE OF SENIOR CIVIL SERVANTS IN OGUN STATE

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Abstract

Ministries and parastatals are created in all countries of the world to accelerate economic and social development. Yet, increasing evidence indicates that most ministries either do not contribute strongly to national or state development or do not perform their civil service functions effectively and efficiently. This study therefore examined the personality-factors, job stress and coping-styles as predictors of job performance of senior civil servants in Ogun State. This study used a descriptive survey design of ex-post-facto type. One thousand, five hundred and ninety participants, selected through a multi-stage random sampling technique was used to select the ministries, and the respondents that participated in the study in Ogun State. Data were collected using four adopted instruments. Three null hypotheses were tested at 0.05 level of significance, while data were analyzed using of means, standard deviation and Multiple Regression Analysis. Results indicated that personality, job stress and coping styles jointly combined to influence on job performance was significant ($F = 45.218$; $R = .339$; $R^2 = .115$, Adj. $R^2 = .115$; $P = .000$). Personality, job stress and coping styles combined to influence job performance of male ($R = .415$; $R^2 = .172$; $F_{(3, 851)} = 19.703$; $p = .010$) female Senior Civil Servants in Ogun state ($R = .273$; $R^2 = .075$; $F_{(3, 731)} = 2.391$; $p = .000$). The study concluded that personality, job stress and coping styles jointly and relatively predicted senior civil servants' job performance and satisfaction. The finding of this research has also proved the relevance of personality in promoting job performance and job satisfaction and thus brings about effectiveness of both individual and organization in terms of service delivery.

Key words: Civil servants, personality, job stress, coping styles, job performance

Introduction

Ministries and parastatals are created in all countries of the world to accelerate economic and social development. The public servants of Nigeria have played fundamental roles occupying centre stage in nations' numerous stride towards modernization and development as well as in strengthening the country's economy and sovereignty (Jagun, 2020). Yet, increasing evidence indicates that most ministries either do not contribute strongly to national or state development or do not perform their civil service functions effectively and efficiently. This and many other factors have been generating a lot of arguments by the policy makers as to whether or not the state-owned ministries are viable to economic and social development; why so many of them have failed to deliver the services for which they were created, and how their management can be improved upon to achieve efficient service delivery and engender national and state development.

Available evidence shows that the performance of the public and civil service in virtually all tiers of government in Nigeria have remained very dismal, hence the present state of underdevelopment (Adebayo, 2001; Jike, 2003; Owusu, 2014). The dismal performance of parastatals and agencies of government is very obvious in this regard (Okafor, 2004). This made Agary (2014) stated that public

officers- elected, appointed, or employed in the civil service - hold their positions and the resources under their care on trust for the public good. They are in their positions to serve the public good and as such they owe us a duty of care and a duty of loyalty, which should come before their personal interests. They cannot allow their personal interests to conflict with these duties, yet it seems that public officers forget their duties to the public and deal with public interests like hooligans during a riot- looting with no regard for consequences (PUNCH, March 9, 2014).

However, past researches have shown that low performance is recorded in almost all public sector organizations in Nigeria (Ezulike, 2001; Iheriohanma, 2006; Mbogu, 2001); and findings from other studies have also shown the importance of financial incentives in boosting the performance of public servants in Nigeria (Tongo, 2005). Yet, little or nothing is known about the extent to which personality factors, job stress and coping styles could influence the job performance of senior civil servants in Ogun State. Job performance is a human behaviour whose result is an important factor for individuals work effectiveness evaluation, commensurable remuneration, overall growth and achievement of the organizational goals. It can be adduced that organizations success or failure depends on job performance of the individual in that organization. Performance refers to either employees' discrete activities and behaviours or their aggregated values to the organizations (Kocak, 2006).

Job performance has been described as an accomplishment of assigned duties in accordance with organizational guidelines subject to the normal constraints of reasonable utilization of available resources (Ayodele & Ezeokoli, 2014). Effective job performance has positive effects on both an organization and her employees. For the organization, it is a means by which it ensures production, economic growth and survival. Similarly, effective job performance provides the employees with economic gains, security, social status, family and social prerogatives, medical benefits, recreational and educational opportunities (Ayodele, 2002). Having a job has always been a crucial factor in Nigerian society as individuals are identified by their occupations. A person's job reveals his/her personality, and it influences the nature of interactions he/she has with people; it largely determines the individual's social status, affiliation, economic status and self-concept (Ayodele & Ezeokoli, 2014). Job therefore offers a lot of benefits to organizations, individuals and the society at large.

Researchers now agree that job performance is a complicated multidimensional factor (Campbell, 1990; Guion, 1991 Austin & Villanova, 1992). However, highly committed employees are seen as very vital to the growth of any organization, and this account for regular appraisal of employees in the organization. Elobuike et al (2018) noted that several organizations are experiencing radical transformations and changes as a result of the need to meet up with the challenges of the rapidly changing and demanding work environment. Recently researchers have begun to look at job performance from various dimensions (Nosiri &Njemanze, 2017).

In recent years' personality has been seen as an important factor in the prediction of the relationship between performance and stress (Nahid & Hoseyn, 2013). McAdams (2001) define personality as the pattern of collective character, behavioral, temperamental, emotional, and mental traits of a person. The variation of traits represented in people's personalities can allow for considerable different responses to stress (Sarason & Sarason, 2005). One tool that has been helpful to organizations to better understand the relationship between stress and performance is the Five Factor Model (Owen, 2007). The Five Factor Model of personality is the classification of a person's personality into five broad factors of personality traits found through inductive statistical analysis of the traits that were most frequently observed in the population (Srivastava, 2006). It has enabled researchers to

empirically examine the relationship between five generally accepted personality traits and performance in an organized and consistent method (Usman, 2017).

There has been a resurgence in interest in the area of personality and performance prediction recently as meta-analytic evidence has demonstrated that certain personality traits are consistently predictive of general areas of performance, and the most widely applied method in this area is the use of the Five Factor Model of personality traits (Adenuga & Ayodele, 2012; Nahid & Hoseyn, 2013). Examining which personality traits perform better during stressful situations can have a positive impact in the workforce as well as personnel selection. It is important to be able to plan nationally for areas such as technological advancement, changes in the economy of a country which might lead to becoming redundant and so on.

Job stress is a relatively common phenomenon in many workplaces which in many forms negatively affects peoples' well-being and health (Harris, Harvey & Kacmar, 2009; Yang, Hongsheng & Spector, 2008). In general, stress is an interactive process between the demands of situation and the ability of the individual to deal or cope with the demands (McGowan, Gardner, & Fletcher, 2006). Emeke (1991) earlier ascertained that failure of an individual to adapt to and curtail stress inducing factors may result into emotional and mental breakdown.

Stress develops among employees because of an imbalance in the specific psychological and physical demands of the work and the resources available to meet the demands (Ortega, Brenner, & Leather, 2006). In the theoretical model of stress, external environmental factors known as stressors create stress, which produce strains or the individual reaction to the stressor (Johnson, Todd, & Subramanian, 2005; Pomaki & Anagnostopoulos, 2003). An individual with chronic stress may suffer from psychological symptoms such as withdrawal, anxiety, depression, phobias, and physiological symptoms such as hypertension and coronary disease (Tomei, Cherubini, Ciarocca, Biondi, & Rosati, 2006).

Another variable in the domain of this study is the coping style. According to Daniels, Beesley, Cheyne, and Wimalasiri (2008) as well as Folkman and Moskowitz (2004) coping styles are seen as active or passive efforts to respond to the circumstances and situations that create stress, to avoid or reduce stress and include problem focused style (efficient styles) and emotion focused style (inefficient styles). Problem focused styles include methods such as 'problem solving' (that means a set of semi-centralized ideas or efforts with stressors in addition to using analytical approach to solve the problem), 'positive reappraisal' (that include efforts to make positive concepts in dealing with problems), 'taking responsibility' (that include a series of reactions that are based on accepting one's role in making the problem and result in constructive and continuous effort in correcting the situation), and finally it includes 'social support seeking' (Cooper, 2010; Dewe, O'Driscoll & Folkman, 2011; Ramos, 2011).

From the aforementioned, it is pertinent to investigate the predictive capacity of personality factors, job stress and coping styles on job performance and satisfaction of senior civil servants in Ogun State. This study therefore, is interested in the combined and relative predictive capacity of the big five personality factors, job stress and coping styles on job performance and satisfaction of senior civil servants in Ogun State.

Hypotheses

Ho_1: There is no significant contribution of personality, job stress and coping styles to Job Performance of Senior Civil Servants in Ogun State.

Ho_2: There is no significant contribution of personality, job stress and coping styles to job performance of male Senior Civil Servants in Ogun state.

Ho_9: There is no significant combined contribution of personality, job stress and coping styles to job performance of female Senior Civil Servants in Ogun state.

Methods

Research Design: This study employed the survey research design. This design was considered appropriate because the study did not intend to manipulate the variables but to measure them as they exist and determine the extent to which the independent variables (personality factors, job stress and coping styles) predict the dependent variable (job performance and job satisfaction of senior civil servants in Ogun State).

Population: The population for this study consisted of all senior civil servants in the entire ministry in Ogun State, South-West, Nigeria.

Sample and Sampling Techniques

A sample of one thousand six hundred and ninety (1690) senior civil servants were selected for this study. A Multi-stage random sampling technique was used to select the ministries, and the respondents that participated in the study. Multi-stage sampling technique was chosen because it is a stage-by-stage system of sampling method. The ministries were first selected through stratified random sampling technique, in which 12 ministries (60%) were selected out of the 20 ministries in the state for the study. From each of the 12 ministries, 50% senior civil servants were randomly selected. Selection of the participants was done using simple random sampling technique.

Research Instruments: Four instruments were used to collect data for this study.

The Big five Inventory (BFI): This is a standardised psychological assessment instrument developed by John, Donahue and Kentle (1991) validated for use with Nigeria sample by Umeh (2004). The instrument contains 44 items designed to measure personality from a five-dimension perspective (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience). Direct scoring is used for all the items. It is scored on a 5-piont scale ranging from 1-5, 1-Disagree strongly, 2-Disagree a little, 3-Neither agree nor disagree, 4-Agree a little and 5-Agree strongly (see appendix B). Values of the numbers shaded are added to obtain the clients scores in each of the subscales. Separate norms have been reported by Umeh (2004) for male and female Nigerian sample.

The coefficients of reliability provided by John et al. (1991) are Cronbach alpha .80 and 3-months test-retest of .85. Big Five Inventory has mean convergent validity coefficient of .75 and .85 with the Big Five Instrument authored by Costa and McCrea (1992) and Golberg (1992) respectively. The divergent validity coefficient obtained by Umeh (2004) with University Maladjusted Scale (Kleinmuntz,1961) are Extraversion .05, Agreeableness .13, Conscientiousness .11, Neuroticism .39, Openness .24. Onyishi, Okongwu, and Ugwu (2012) reported a Cronbach's alpha of .83 for the BFI. For the present study, Cronbach's alpha of .81 was obtained.

Perceived Stress Scale – It is a common assumption among health researchers that the impact of "objectively" stressful events is, to some degree, determined by one's perception of their stressfulness (e.g., Lazarus, 1966, 1977). As a general measure of stress in the employees' life, the Perceived Stress Scale (PSS) was used (see Appendix C). The PSS measures the degree to which situations in an

individual's life are appraised as stressful (Cohen et al., 1983). The instrument was designed to evaluate the degree to which respondents found their lives specifically unpredictable, uncontrollable, and overloading. There has been extensive normative data collected on over 2,000 respondents using the PSS (Cohen, 1999). The coefficient alpha reliability for the PSS is stable at approximately α = .86 (Cohen et al., 1983). The scale is strong psychometrically and relates to relevant outcomes in expected ways. The PSS contains 14 items on a 5 point Likert scale ranging from 0 = *never*, 1 = *almost never*, 2 = *sometimes*, 3 = *fairly often*, and 4 = *very often*. In the current study, the Cronbach's alpha falls in the average with α =.85.

The Coping Styles Questionnaire **(CSQ; Roger et al., 1993)** (Appendix D). The 60 item CSQ measures coping styles according to four factors. For example, detached Coping (DETCOP) has a 15 item scale that looks at detached coping styles (e.g., "I feel completely calm in the face of any adversity") with alpha levels of internal consistency recorded at .77 (Elklit, 1996) and .90 (Roger et al., 1993). Rational Coping (RATCOP) is a 16 item scale that investigates a problem solving coping style (e.g., "be realistic in my approach to the situation"), alpha levels recorded at .81 (Elklit, 1996) and .85 (Roger et al., 1993). Emotional coping (EMCOP) is a 16 item scale that looks at emotion-focused coping styles (e.g., "I look for sympathy and understanding from people") with alpha levels of .79 (Elklit, 1996) and .73 (Roger et al., 1993). Avoidance Coping (AVCOP) deals with coping styles that are avoidant in nature (e.g., "try to think about or do something else") with alpha levels of .66 (Elklit, 1996) and .69 (Roger et al., 1993).

Job Performance Scale: This is a 25-item with two subscales: task performance, contextual performance that is adopted from Johanim et al. (2000). Johanim et al. adapted items 1-16 measuring Task performance from William and Anderson (1990), items 17-25 measuring contextual performance from Podsakoff and MacKenzie (1990) and Moon et al. (2007). All items were rated on a seven-point Likert scale, namely 1=very disagree, 2=disagree, 3= slightly disagree, 4=moderate, 5= slightly agree, 6= agree, 7= very agree. To determine the score of this scale, ratings within each scale are summed and divided by the total number of items in that particular scale. Negative statement items on the instrument were reverse-coded so that a high score on the instrument indicates a high degree of job performance for the Secretaries. Internal consistency reliability of each subscale is Cronbach's alpha values of 0.921 for 'task performance' subscale and 0.936 for 'contextual performance' subscale. The internal consistency reliability for the Job Performance scale is 0.927.

Method of Data Collection: For the purpose of this study, the researcher employed three research assistants who were trained for the administration of the instruments and basically on the objectives of the research work. Employees met at their duty post after due permission from the ministries' authorities and the instrument distributed to them. Participants were informed on the objective of the study and advised to be truthful in responding to the questionnaire. The questionnaire was distributed to the officers and were collected back immediately they were rated by the officers.

Method of Data Analysis: Data collected from this study through the use of questionnaire were subjected to descriptive statistics, as well as Multiple Regression Analysis with significant level fixed at an alpha of .05. The descriptive statistics allows the reader to see at a glance some of the outcome of the result such as number of participants, age, etc. The multiple regressions on the other hand was used because in one single analysis it establishes the composite and relative contributions of the predictor variables on the criterion variables.

Results

Table 1: **The composite and relative effect of the Independent variables on Job Performance of Senior Civil Servants in Ogun State**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.057	.125		11.460	.000
Personality Factors	.131	.063	.138	2.076	.009
Perceived Stress	.078	.163	.092	1.309	.217
Coping Styles	.191	.375	.164	7.567	.000

Source of variation	**Sum of Squares**	**Df**	**Mean Square**	**F-Ratio**	**P**
Regression	5668.803	3	1889.601	45.218	.000[b]
Residual	66319.143	1587	41.789		
Total	71987.946	1590			

R = 0.339; Multiple R = 0.115; Multiple R^2 (Adjusted) = 0.115; Stand error estimate = 2.190

Table 1 shows the strength of causation of the predictor variable on the criterion variable. The most potent predictor of job performance among the predictor variables of the study is coping styles (β = .164; t = 7.567; p = .000). Personality factors is the next potent factor (β= .138; t = 2.076; p = .009), and lastly by perceived stress (β= .092; t = 1.309; p = .217) in the prediction of job performance of Senior Civil Servants.

Additionally, the table indicated a joint or composite combination effect of personality, job stress and coping styles on job performance was significant (F = 45.218; R =.339; R^2 =.115, Adj. R^2 =.115; P =.000). This implies that the predictor variables accounted for 11.5% variance in job performance of Senior Civil Servants in Ogun State. Further, verification using regression analysis of variance (ANOVA) produced $F_{(3,1587)}$ = 45.218; P = .000). This implies that the selected factors compositely and relatively affected the job performance of Senior Civil Servants.

Table 2: The effect of the Independent variables on Job Performance of male Senior Civil Servants in Ogun State

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	97.680	7.264		13.447	.000
Personality Factors	.038	.038	.170	1.984	.000
Perceived Stress	.118	.164	.084	.286	.775
Coping Styles	.115	.127	.306	3.182	.003

Source of variation	**Sum of Squares**	**Df**	**Mean Square**	**F-Ratio**	**P**
Regression	3421.962	3	1140.654	19.703	.010[b]
Residual	48052.020	851	57.894		
Total	51473.982	854			

R = .415; Multiple R = .172; Multiple R^2 (Adjusted) = .172; Stand error estimate = 15.072

The results in Table 2 revealed the strength of causation of the predictor variable on the criterion variable. The most potent predictor of male job performance among the predictor variables of the study is coping styles (β = .306; t = 3.182; p = .003). Personality factors is the next potent factor (β= .170; t = 1.984; p = .000) in the prediction of male job performance of Senior Civil Servants in Ogun State, Nigeria while perceived stress (β= .084; t = .286; p = .775) was found to be insignificant.

However, a significant combined contribution of personality, job stress and coping styles to job performance of male Senior Civil Servants in Ogun state (R = .415; R^2 = .172; $F_{(3, 851)}$ = 19.703; p = .010) was found. The total variance accounted for by the contribution of personality, job stress and coping styles on job performance of male Senior Civil Servants is 17.2% (R^2 = 0.172). Analysis of variance shows that this value is significant (f = 19.703, P = .000). Therefore, 17.2% of the total variability in job performance of male Senior Civil Servants is accounted for by the prediction variables.

Table 3: The effect of the Independent variables on Job Performance of female Senior Civil Servants in Ogun State

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	90.829	8.566		10.604	.000

Personality Factors	.081	.046	.065	1.941	.011
Perceived Stress	.019	.067	.011	.286	.775
Coping Styles	.006	.032	.007	.193	.847

Source of variation	**Sum of Squares**	**Df**	**Mean Square**	**F-Ratio**	**P**
Regression	688.972	3	229.657	2.391	.000
Residual	70222.784	731	96.064		
Total	70911.756	734			

R = .273; Multiple R = .075; Multiple R^2 (Adjusted) = .075; Stand error estimate = 14.730

The results in Table 3 revealed the strength of causation of the predictor variable on the criterion variable. The only potent predictor of female job performance among the predictor variables of the study is personality factors (β = .065; t = 1.941; p = .011). However, the results indicated a significant combined contribution of personality, job stress and coping styles to job performance of female Senior Civil Servants in Ogun state (R = .273; R^2 = .075; $F_{(3, 731)}$ = 2.391; p = .000). The total variance accounted for by the contribution of personality, job stress and coping styles on job performance of female Senior Civil Servants is 7.5% (R^2 = .075). Analysis of variance shows that this value is significant (f = 2.391, P = .000). Therefore, 7.5% of the total variability in job performance of female Senior Civil Servants is accounted for by the prediction variables. This implies that there was a significant effect of personality, job stress and coping styles on job performance of female Senior Civil Servants in Ogun State.

Discussion of the findings

The first hypothesis stated that "There is no significant effect of personality, job stress and coping styles to job performance of senior civil servants in Ogun State". This hypothesis was rejected by the analysis of data indicating that personality, perceived stress, and coping styles combined to have significant contribution on Job Performance of Ogun State Senior Civil Servants. Result showed that personality factors, perceived stress and coping styles accounted for the variance observed in the employees' job performance. This is in line with the previous findings which demonstrated that certain personality traits are consistently predictive of general areas of performance (Adenuga & Ayodele, 2012; Nahid & Hoseyn, 2013).

Evidences obtained from certain working environments have shown that stress causes negative emotional states in individuals and toward working tasks, and leads them in a voluntary-compulsory form toward unethical and unproductive behaviours by making emotional, behavioural and cognitive imbalance in individuals (Golparvar et al, 2012). In fact, it seems that when people experience stress, they tend to show deviant behaviours in an emotional behavioural alignment to compensate the assumed created imbalance because this stress mostly brings negative emotional states.

Moreover, some evidence indicates that stress coping styles are related to individuals' behaviour and attitudes in the workplace (Zhao & Yamaguchi, 2008; Newness, 2011), and thus may improve job performance or otherwise. This is supported by the findings of Adebusuyi and Ayodele (2017) that found

a strong influence of personality factors on the extent at which employees perform on a given task including their career.

The outcome of the second hypothesis revealed that a significant effect of personality, job stress and coping styles to job performance of male Senior Civil Servants in Ogun State. The implication of this result is that personality, job stress and coping styles could have combined and relatively determine the extent at which a male worker will perform on his job. It can be deduced from the outcome of this study that like many countries around the world, the Nigerian work environment is characterized by stress and the socioeconomic structure of the external environment and the demands of the workplace, makes it pertinent for employees to possess effective coping strategies, without which performance could be hampered. Hence, to enhance corporate image and achieve competitive advantage, stress management and coping strategies become imperative (Adeniji & Osibanjo, 2012; Manjunath & Rajesh 2012).

The outcome of the third hypothesis revealed a significant combined contribution of personality, job stress and coping styles to job performance of female Senior Civil Servants in Ogun State. For the organization, it is a means by which it ensures production, economic growth and survival. Similarly, effective job performance provides the employees with economic gains, security, social status, family and social prerogatives, medical benefits, recreational and educational opportunities (Ayodele, 2002). Having a job has always been a crucial factor in Nigerian society as individuals are identified by their occupations. A person's job reveals his/her personality, and it influences the nature of interactions he/she has with people; job stress, coping and it largely determines the individual's social status, affiliation, economic status and self-concept (Ayodele & Ezeokoli, 2014) but not by being a female or male.

Based on the significant relationship between personality traits and job performance, the managers should seek for the ways by which the individuals are employed according to their personality traits and job position. Therefore, the efficiency and effectiveness of the organizations will significantly improve by considering the mental and personality characteristics of the individuals. This is in line with the findings of Nahim (2013) whose results showed that there was a significant relationship between job performance and personality traits, thus personality traits are important components of job performance.

Conclusion

The study found that personality factors are very essential when it comes to job performance and job satisfaction of civil servants. The finding of this research has also proved the relevance of personality in promoting job performance and job satisfaction and thus brings about effectiveness of both individual and organization in terms of service delivery. Personality factors increase the employee performance and satisfaction like the researcher reported that personality factors are the pattern of collective character, behavioral, temperamental, emotional, and mental traits of a person to increase the success of the organization. Previous research has revealed that employees who are satisfied with their job are more likely to be creative, innovative and initiate the breakthroughs that can increase their job performance. This makes it reasonable for organization to inquire that certain personality traits can allow the person to better observe their own thoughts and feelings in challenging situations which can allow them to more effectively perform under stress.

Perceived stress is another potent factor of the study predicting employees' job performance and job satisfaction. As noted by Ortega, Brenner and Leather (2006) Stress develops among employees because of an imbalance in the specific psychological and physical demands of the work and the resources available to meet the demands. The study concluded that perceived stress had an influence on the

performance and satisfaction of civil servants. It affirms what some of the previous researchers such as Welford (2006) have established that moderate levels of stress do enhance performance and satisfaction. The findings further support the inverted "U" relationship which means that low levels of stress individuals perform perfectly but at higher levels individuals begin to develop stress symptoms while performance and satisfaction declines over time. The conclusion of individual characteristics and the innovative ways in moderating stress gave a new appreciation to the relationship between perceived stress, the employees' performance and satisfaction.

The study provides a basis for the understanding of coping styles in relation to personality factors, perceived stress, performance and satisfaction. The coping style involves altering or managing the problem that is causing the stress and is highly action focused. It revolves round cognitive and behavioural efforts directed. This involves a number of strategies such as gathering information, resolving conflict, planning, making decisions, seeking social support, acceptance and venting of emotions etc. Some evidence indicates that stress coping styles are related to individuals' behaviour and attitudes in the workplace (Zhao & Yamaguchi, 2008; Newness, 2011), and thus may improve job performance and satisfaction or otherwise.

In conclusion, this study enhances our understanding of the contributive power of personality, perceived stress, and coping styles on job performance and satisfaction. Through this study it is hoped that people will become more aware of how their personality type, perceived stress, and coping styles can affect their performance and satisfaction in different situations.

Recommendations

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

i. The state ministries in Nigeria should be strengthened, empowered in a significant way and be made to deal with job performance and satisfaction effectively thus training should be structured to meet the personality and coping needs of each individual, making sure that the contemporary challenges of the organization is confronted while work stress is reduced to the barest minimum.
ii. Organizations should always look for ways to improve the occupational wellbeing of their employees. Unfortunately, most employees today are continuously dealing with high job demands and stress-induced tasks in other to meet the organizations' goals. Research is important in order for organizations to select and promote the employees whose dispositional traits align with the demand of the organization's goals and with the contextual factors of the organizational culture.
iii. The results in this study point to the importance of personality as it speaks more to ways individual handles stress than their behaviors reacting to the stress. Organizations would be well advised to utilize personality assessments in order to assess executive candidates' disposition. Selecting a candidate that is emotionally secure can increase the chance the individual will be more resilient to job stressors, effectively handle negative contextual factors (environment), and make use of better decision-making processes for the organization.
iv. Coping strategies are important for employers to emphasize in their organization as they allow employees to reduce the stress of their jobs, enhance performance and increase satisfaction.

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INFLUENCE OF SOCIAL MEDIA USE ON MORAL DEVELOPMENT AND ACADEMIC PERFOMANCE AMONG PUBLIC SECONDARY SCHOOL STUDENTS IN IKENNE LOCAL GOVERNMENT AREA, OGUN STATE, NIGERIA ----------

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Abstract

For secondary school students to choose the best course for their education and personal lives, as well as to understand the importance of the values in their home and school environments, moral development is vital. This study therefore was set out to investigate the influence of social media use on moral development and academic performance among secondary students in Ikenne Local Government Area, Ogun State, Nigeria.

The study adopted a survey design and used a multi-stage sampling technique to select the three hundred and thirty-three (356) participants for this study. Questionnaires were distributed, filled and used in the analysis. Two research questions and two hypotheses were formulated and tested. Descriptive statistics and Multiple regression analysis were used to analyse the data and provide answers to the research questions and test the hypotheses at 0.05 level of significance using the SPSS 25 version.

The findings from this study revealed that a0bout 16.5% of the total variance in the students' moral development is accounted for by social media usage ($R = 0.406$; $R^2 = .165$; $F_{(1,350)} = 15.451$; $p = .000$); and 26.1% of the total variance in the students' moral development is accounted for by social media ($R = .511$; $R^2 = 0.261$; $F_{(1,350)} = 24.805$; $p = .011$).

On the basis of the findings, it was concluded that social media use influenced the moral development and academic performance of students and they must be sensitized on the benefits of using social media to access, gather and distribute academic related matters that can augment their knowledge level in their different disciplines and moral development.

Key words: social media,moral development,ac0ademic performance,students

Introduction

Technological shift from analogue to digital has immensely changed the way people communicate in the society as many people including students have joined Social Networking Sites ,what started as an hobby for some computer literate people has become a social norms and has become part of the daily life experience for increasing number of people(Olanrewaju &Ayelabola,2021).Social media provides students with easy access to information ,online discussion and also educational platforms and study groups which enhance learning experiences.This rise of social media has significantly transformed communication ,learning ,and social interactions among students.Platforms like Facebook, Instagram,Twitter and Whatsapp have become central to students daily lives. Ansari and Khan (2020) argue that excessive use of the social network sites not only have long lasting effect on psyche of students but also affect the physical, mental and social aspect of life. They further add that sometimes the social media also affect the academic achievement of the students because they do not want to leave that particular aura and thus their concentration and moral values stands divided. Many students have lost their interest in their studies as they spend most of their time on social network sites (Jamil et al., 2020).

Moral development is crucial for secondary school students to select right path for their learning and personal life and to realize a significance of values of school and home system in which they live around them. Moral development is largely influenced by personal, internal and external environmental, social, cultural, ethical and moral factors (Sri & Devi, 2021). The system of values in the individual is formed within a developmental process. This process is also called moral development. According to Yayla & Çevik (2022), moral development and cognitive development are parallel to each other.

One essential component of human development that can be improved within the educational institutions is moral development (Ossat, 2019). In addition to teaching academic content, schools are essential in helping students develop their moral compass, character, and ethical ideals. Thus, it is necessary to investigate and traverse the boundary of moral growth in the classroom and delve into the various facets that go into creating morally upright people.

Moral development, an often overlooked yet integral component of education, is a silent force that shapes the ethical fabric of individuals. Beyond textbooks and examinations, the educational journey is a moral odyssey, where students navigate the terrain of right and wrong, empathy and responsibility. The social challenges encountered in secondary education provide the crucible in which moral character is tested, refined, and molded (Obi et al., 2019; Okenyodo, 2018).

The intricate and multidimensional concept of moral development is crucial in determining how people reason ethically, make decisions, and behave. It includes the steady assimilation of ideals, convictions, and guidelines that help people discern between good and wrong. A vital component of a secondary school student's overall development and maturation is their moral growth as they navigate their formative years (Adekanbi, 2020).

Education is the total process of human learning by which knowledge is imparted, faculties trained and skills developed. Secondary schools not only occupy a strategic place in the educational system in Nigeria, it is also the link between the primary and the university levels of education. According to Gegeleso and Ayodele (2023) education at secondary school level is supposed to be the bedrock and the foundation towards higher knowledge in tertiary institutions. It is an investment as well as an instrument that can be used to achieve a more rapid economic, social, political, technological, scientific, moral and cultural development in a country. It has been observed that the secondary schools today are not measuring up to the standards expected of them (Gegeleso & Ayodele, 2023). Additionally, there have been public outcries over the persistently poor performance of secondary school students in public examinations.

Secondary education stands as a critical juncture in the developmental journey of individuals, representing a pivotal phase marked by academic rigor, social interactions, and the formative shaping of moral character. This educational epoch is not confined solely to the transmission of knowledge; rather, it

unfolds as a dynamic interplay of social challenges, academic performance, and moral development (Adeowu, 2017). The intricate nexus that links these dimensions creates a complex tapestry influencing the holistic growth of students within the secondary education system.

Students' academic achievement serves as a barometer for evaluating a country's quality of education (Gegeleso & Ayodele, 2023). Maintaining a strong performance in exams, both internal and external, is therefore advantageous. Research findings and newspaper articles have documented the poor performance of secondary school students in public exams, demonstrating the extent of this deficiency (WAEC Report, 2017; JAMB Report, 2024). Not only does the continuous drop in students' performance in public exams frustrate parents and students alike, but it also has grave consequences for society as a whole through economic recession.

Exam results or test scores in academic subjects are referred to as a student's academic performance. According to House (2017) and Izundu (2020), student performance is commonly interpreted as one's performance on both standardized and non-standardized assessments across a range of subject areas. A student's performance in a subject is assessed based on their results on an achievement test that is either standardized or created by the teacher (Bagibesan, 2019). An alternative way to define student performance is as the learning outcomes that the students have acquired and retained from their studies both inside and outside of the classroom (Ademulegun, 2021). These outcomes include knowledge, skills, and ideas. It is usually determined through norm-referenced testing in which a student's performance test score is compared to the scores of other students, usually of the same age, who took the test (Oluwatunmininu, 2020).

Students' academic performance cannot be completely accounted for by only one or two variables but a number of them. It represents performance outcomes that include the extent to which a learner has accomplished specific goals that were the focus of activities in instructional environments. Since students' performance depends on a number of variables, it could be enhanced through identifying and manipulating each of such variables. Over the years, the investigations on the factors that influence student performance have attracted the interest and concern of teachers, counsellors, psychologists, researchers, and school administrators in Nigeria (Okolie et al., 2021). This is not unconnected with the public outcry over the poor performance of students in the country (Ogunbanwo, 2019), as the performance of students has fallen considerably below social expectations.

Failure to achieve in academics shows that a potential is either lost or not being realized, and the factors militating against it need to be investigated. This is why researches on factors affecting student performance have been so important to education researchers. It should be noted also that the only way by which learners can meaningfully contribute to nation building is by doing well in their academics. For this reason, whatever that can impede or disturb with learning should be identified and looked into so that the gain of teaching can begin to manifest in good student performance. This is because the performance of students is a function of several interrelated factors which are either internal or external. That is, these factors are either within the control of the individual or they are outside his/her control. Factors within the control of the individual are resident of the learners themselves, while factors that are outside his/her control are determined mainly by the teacher, the school environment and societal influences.

Therefore, this study is set out to investigate the influence of social media use on moral development and academic performance among secondary students in Ikenne Local Government Area, Ogun State, Nigeria.

Research Hypotheses

To achieve the objectives of this study, the following hypotheses were generated:

Ho1: There is no significant influence of social media use on secondary school students' moral development in Ikenne Local Government Area, Ogun State

Ho2: There is no significant influence of social media use on secondary school students' academic performance in Ikenne Local Government Area, Ogun State

Methodology

Research Design: The research design that was employed for this study is the survey research design.

Population: The population for this study covered all the 3232 students in public secondary schools in Ikenne, Local Government of Ogun State, Nigeria.

Sample size and Sampling Techniques: A sample of 356 students were selected using Slovin sample size determination technique. Additionally, the sample was selected using multi-stage sampling technique following these procedures

- the Local Government Area was divided into five major (5) administrative zones, while three (3) was selected using balloting.
- six public secondary schools were selected out of the eight schools in Ikenne, Iperu and Ilisan.
- the classes in the selected schools were stratified for the selection of 356 students for the study.

Instrumentation: The research instrument was divided into four sections.

Section A-(Demographic information): This section elicits responses on demographic variables of participants like such as gender, religion, cultural background, marital status, among others.

Section B-(Social Media) Scale – Short Form (SMS-SF): The Social Media Scale – Short Form (SMS-SF) was developed by Tutgun-Unal and Deniz (2015) to measure social media usage among potential users. The scale consists of 29 items in a 5-point Likert-type format having responses 1 = Never, 2 = Seldom, 3 = Sometimes, 4 = Often and 5 = Always. The SMS-SF has four underlying dimensions where numbers 1-5 items are within virtual tolerance dimension; numbers 6-14 items are within virtual communication dimension; numbers 15-23 items are under virtual problem dimension and numbers 24-29 items are under virtual information dimension. The highest score obtainable from the scale SMS-SF is 145, while the lowest possible score is 29.

Section C-(Adolescent Moral Development Questionnaire) (AMDQ): The Adolescent Moral Development Questionnaire (AMDQ) was developed by Adegboyega and Hassan (2018). The AMDQ consists of 20 items formatted as a 4-point Likert-type instrument with responses ranging from 1 = strongly disagree to 4 = strongly agree.

Section D-(Academic performance in Mathematics and English Language): In order to obtain the academic achievement of the students, their academic records of the examinations done in English and Mathematics for the 2023/2024 sessions were obtained from the zonal Education Office.

Method of Data Collection: The researcher visited all the six selected schools with a letter of introduction from the School of Education, Babcock University Ilisan, Ilisan-Remo, Ogun State, as well as letter of ethical approval or clearance was obtained from Babcock University Health Research Ethics Committee (BUHREC). The researcher and two research assistants were involved in the administration of the instruments to each of the sample respondents chosen. The students were met in their classes and the study was introduced to them, those not interested in the study were not forced to participate, instrument was administered to the specified number of students by the research assistants with the supervision of the researcher. Both administration and collection was done the same day.

Method of Data Analysis: In this study, the data analysis tools that will be adopted include descriptive and inferential statistics and simple linear regression analysis that will be tested at 5 percent level of significance ($\alpha = 0.05$) using the SPSS 27 version software.

Results

Table 1: Socio-demographic Results

S/N	Variables	N = 333	Frequency	Percentage %

1.	Age	≤ 14 15-19 20 years above	79 254 -	23.7 76.3 -
2.	Gender	Male Female	125 208	37.5 62.5
3.	Specialization	Humanities Business Science	137 107 89	41.1 32.2 26.7
4.	Class	SS 1 SS 2 SS 3	111 128 94	33.3 38.5 28.2

The frequency distribution and personal profile of respondents as shown in Table 1 by age showed that 79 respondents representing 23.3% were below 14 years age while the remaining 254 (76.3%) respondents aged between 15 to 19 years. With respect to gender, 125 (37.5%) respondents were male and 208 (62.5%) were female. Furthermore, 137 (41.1%) respondents were Humanities students, 107 (32.2%) were Business students, and 89 (26.7%) were Science students. Response on levels of school showed 111 (33.3%) were in SS1 class, 128 (38.5%) were in SS2 class and 94 (28.2%) respondents were SS3 class.

Table 2: Summary of Linear Regression Analysis of influence of social media on moral development secondary school students

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**T**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	40.763	2.664		15.299	.000
Social Media use	.133	.034	.206	3.931	.000

Source of variation	**Sum of Squares**	**Df**	**Mean Square**	**F-Ratio**	***P***
Regression	3498.019	1	3498.019	15.451	.000[b]
Residual	79239.981	350	226.400		
Total	82738.000	351			

R = .406; R^2 = .165; R^2 (Adjusted) = 0.163; Stand error estimate = 15.041

a. Dependent Variable: Moral development

b. Predictors: (Constant), Social Media use

The contribution of the social media use on moral development of secondary school students in Ikenne Local Government Area, Ogun State revealed that social media (beta = .206 and t = 3.931, p = .000) significantly influenced the students moral development. Additionally, the students' moral development yielded a coefficient of multiple regression (R) of 0.406 and a multiple regression square of .165. This shows that 16.5% of the total variance in the students' moral development is accounted for by social media. The table also indicated that the analysis of variance of the multiple regression data produced an F-ratio value significant at .000 level ($F_{(1,350)}$ = 15.451; p = .000). Therefore, the hypothesis that stated no significant influence of social media use on secondary school students' moral development in Ikenne Local Government Area, Ogun State was rejected.

Table 3: Summary of Linear Regression Analysis of influence of social media use on students' academic performance in secondary school

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	38.547	2.339		9.997	.000
Social Media use	.142	.047	.198	2.688	.011

Source of variation	Sum of Squares	Df	Mean Square	F-Ratio	*P*
Regression	980.796	1	980.796	24.805	.011[b]
Residual	13839.350	350	39.541		
Total	14820.146	351			

R = .511; R^2 = 0.261; R^2 (Adjusted) = 0.255; Stand error estimate = 21.163

a. Dependent Variable: Academic performance

b. Predictors: (Constant), Social Media use

The contribution of the social media on secondary school students' academic performance in Ikenne Local Government Area, Ogun State revealed that social media (beta = .198 and t = 2.688, p = .011) significantly influenced secondary school students' academic performance. Additionally, secondary school students' academic performance yielded a coefficient of multiple regression (R) of 0.511 and a multiple regression square of .261. This shows that 26.1% of the total variance in secondary school students' academic performance is accounted for by social media. The table also indicated that the analysis of variance of the multiple regression data produced an F-ratio value significant at .011 level ($F_{(1,350)}$ = 24.805; p = .011). Therefore, the hypothesis that stated no significant influence of social media on secondary school students' academic performance in Ikenne Local Government Area, Ogun State was rejected.

Discussion of Findings

The outcome of the first hypothesis revealed a significant influence of social media on secondary school students' moral development in Ikenne Local Government Area, Ogun State. In this study, social media use was found to be a most potent predictor of moral development among secondary school students. This corroborates the finding of Oladele and Adewale (2020) study on social media and moral reasoning among secondary school students in Ondo State, Nigeria. The study found that adolescents with high social media engagement demonstrated lower levels of moral reasoning compared to their peers with limited social media exposure, and suggested a potential negative impact of excessive social media use on cognitive moral development.

Additionally, Okeke and Okumo (2021) investigated social media and moral reasoning in Nigerian adolescents and reported culture-specific influence of social media on moral values. The findings highlighted the need for culturally tailored interventions to address moral development issues in Nigerian adolescents. This supports the findings of Adeyemi and Ifawole (2020) who conducted a study on the impact of social media on moral development among Nigerian adolescents and revealed a significant association between high social media use and lower scores on moral development scales. Adolescents exposed to morally ambiguous or negative content on social media reported a decline in their moral reasoning abilities.

The outcome of the second research hypothesis showed that social media significantly influenced academic performance among secondary school students in Ikenne Local Government Area, Ogun State.

Specifically, it was revealed that 26.1% of the total variance in secondary school students' academic performance is accounted for by social media. The contribution of the social media on academic performance among secondary school students in Ikenne Local Government Area, Ogun State was found to be potent. This study is supported by Onyema and Ibrahim (2019) who examined social media usage and academic performance among secondary school students in Edo State, Nigeria. The findings of the study revealed a negative correlation between high social media use and academic performance. Adolescents who reported spending more time on social media showed a decline in academic performance over the two-year period, suggesting a potential detrimental effect of social media usage on academic performance.

Also, Mohammed (2018) findings identified a significant negative association between high social media engagement and academic success. Adolescents who reported spending more time on social media had lower academic achievement scores, indicating a potential negative impact of social media engagement on educational outcomes. Additionally, Olufemi and Afolabi (2020) study on social media and academic achievement emphasized the importance of considering individual differences and contextual factors in understanding the nuanced relationship between social media and academic outcomes.

Conclusion

The study reveals that Nigerian youths especially the adolescents have effectively keyed into the capabilities and potentials of social media use. Social media influenced students academic performance, this might be in terms of attendance, attitude to learning, attention span and study habit. This implies that the social media usage significantly influenced the students' academic performance. Additionally, students' moral development was significantly found to influence the students' academic performance. It is concluded that social media use influenced the moral development and academic performance of adolescents and they must be sensitized on the benefits of using social media to access, gather and distribute academic related matters that can augment their knowledge level in their different disciplines and moral development. It is only through this that Nigerian youths can compete favourably with their counterparts in other parts of the world, and be able to add value to the society.

Recommendations

Following the above conclusions, these are the recommendations provided:

1) Majority of students have access to one social network or the other and access the internet regularly and by extension are computer literate. Therefore, it will be worthwhile if Federal Ministry of Education and Policy Makers engage secondary students in computer related academic assignments, projects and researches.
2) Social media should no longer have to be an obstacle to students morals and their studies, instead, teachers should ensure it should be used in helping the students create and manage a study community, and make use of study time, and find new resources to help them learn and retain knowledge.
3) Teachers should also ensure that social media tools are used to keep academic information organized and accessible by using different apps which are available for sharing resources like Pinterest, Google Drive, Box, or Drop box to study material and Google docs gather should be used as team projects, and it can make keeping organized and sharing notes much easier.
4) Furthermore, parents, guardians, tutors, religious leaders, etc. should monitor their children wards on how they use social networking sites and what they use them for. They should also encourage students to engage the tools pro-actively and profitably. And also encourage them to use the websites more creatively to their advantage and the benefit of the society.

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AN ASSESSMENT OF ACADEMIC PERFORMANCE OF STUDENTS AND ITS DETERMINANTS AMONG STUDENTS OF EDO STATE COLLEGE OF NURSING SCIENCES, BENIN CITY, EDO STATE, NIGERIA.

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Abstract

Academic performance is measured either by continuous assessment or cumulative grade point average. Students who have good academic achievements had higher income, better employment benefits, and more advancement opportunities.This study assessed the academic performance of students and its determinants among students of Edo State College of Nursing Sciences Benin city, Edo State, Nigeria. A descriptive cross-sectional study design was used for this study. A convenient sampling method was used to select 105 study participants. Data was collected using a structured, self-administered questionnaire. Data was analyzed using SPSS version 25.0. Results shows that majority of the students [93(89%)] had good academic performance while less than half [11(11%)] had poor academic performance. Good academic performance was reported in students who studied for more than five hours [17 (16.3%)], studied ([45 (43.3%)]; [48(46.1%)]), less than 4hours [40(38.5%)] daily had good academic performance. More than half of the respondents [73(78.5%)] who had interest in studying had Good academic performance compared to twenty students (21.5%) who showed poor academic performance. Interest in studying was statistically significant (p=0.017) with academic performance. Program (p=0.519), marital status (p=0.895), and average monthly income (p=0.594) did not show association with academic performance. In conclusion, the importance of investment by governments in schools cannot be overemphasized.

Keywords: Academic, Performance, students

Introduction

Higher education institutions play a pivotal role in producing qualified human power that can solve community problems (Idris, 2012). At the micro-level, it is associated with better living standards for individuals through improved productivity; given that those who have received a higher education tend to have more economic and social opportunities. At the macro level, education builds well-informed and skilled human capital, which has been considered an engine of economic growth, that positively contributes to economic development (Sothan, 2019). However, gaining knowledge, attitudes, values, and skills through education is not a simple task; rather it is a long and challenging trip in life. Students are expected to spend much of their time studying and need to graduate with good academic results.

Nursing education is challenging and expensive all over the world resulting in nursing colleges aiming to recruit only the best applicants into its programs. Despite going for the best brain, these students on getting into the school struggle to cope with the rigorous nature of the training. Most of them are from families with low socioeconomic status and are faced with herculean task of surviving the economic hardship and rigorous school work.

Academic performance is the extent to which a student, teacher, or institution has attained their short or long-term educational goals and is measured either by continuous assessment or cumulative grade point average (CGPA) (Talib 2012). A correlational study among vocational high school students in Indonesia found that students who had good academic achievements have higher income, better employment benefts, and more advancement opportunities (Tentama, 2019}. Besides, academically successful students have higher self-esteem and self-confidence, low levels of anxiety and depression, are socially inclined, and are less likely to engage in substance abuse, i.e., alcohol and khat (Regier, 2011).

Poor academic performance among students is on the rise due to a lot of distractions. However, a cross-sectional study in Malaysia in higher learning institutions reported that an increasing number of students still do not graduate on time, suggesting that they did not perform well in their studies (Abrazak, 2019). Despite excessive government investment in education, most students fail to achieve good academic performance at all levels of education. A correlational study in Arba Minch University, South Ethiopia, reported that the trend of graduating students is not proportional to the trend of enrolled students and more students commit readmission due to poor academic performance (Yigermal, 2017). This resulted in unemployment, poverty, drugs elicit, promiscuity, homelessness, illegal activities, social isolation, insufficient health insurance, and dependence. Additionally, a systematic review in India concluded that poor academic achievement causes significant stress to the parents and low self-esteem to the students [Karande, 2005]. It is also significantly associated with high anxiety scores among university students in Pakistan [Talib 2012]. Further, in public schools in Pakistan, academic failure affects self-concept and leads to a feeling of disturbance and shock. In this way, students finally drop out of the education system at all (Chohan, 2018).

Beyond the quality of schools, various personal and family factors, including socioeconomic factors, english ability, class attendance, employment, high school grades, and academic self-efficacy have been proposed to influence academic performance. Besides, other factors, i.e., teaching skills, study hours, family size, and parental involvement have an association with academic performance as well (Crede and Mushtaq 2012). A cohort study among university students in Australia concluded that aging does not impede academic achievement (Imlach 2017). A secondary data analysis among fifth-grade students in Colorado showed that eating breakfast, normal body mass index, adequate sleep, and ≥5 days' physical

activity per week was significantly associated with higher cumulative grades (Stroebele, 2013). A significant association was also found between joining the medical profession and good academic performance in Pakistan (Khan 2020). At Arba Minch University, students with a good academic record before campus entry were more likely to have academic success in higher education programs (Yigermal, 2017) A descriptive study on Bahir Dar university students showed that the education status of parents and attending night club affect academic performance (Tirumeh, 2014). Also, a survey in Nigerian high schools indicated students whose parents were government employees achieved better performance (Atolagbe, 2019). However, the impact of these factors varies from region to region and differs in cities and rural areas. This might be due to diverse data measurement methods and quality or the context of each study.

The poor performance of students requests attention. There is however paucity of researches on this subject in south-south Nigeria, It is hoped that understanding predictors of good academic performances among nursing students will not only add to the existing body of knowledge on this subject but also assist in the development of programs that will address these issues to improve academic performance among students.

This study assessed the determinants of academic performance among students of Edo State College of Nursing Sciences Benin city Edo State Nigeria.

Methodology

A descriptive cross-sectional study design was used for this study. All students who undergo their education in the Nursing and Midwifery and are available at the time of data collection were included in the study. Students who had not written a semester exam, mentally and physically incompetent, and those who were not willing to fill out the questionnaire were excluded. A convenient sampling technique was used to select 105 study participants. Data was collected using a structured, self-administered questionnaire and academic performance among student's who scored a cumulative GPA of 2.8 and above were categorized as "Good", whereas those with a cumulative GPA of below 2.75 were categorized as "Poor" (Yigermal, 2017). Data was analyzed using SPSS version 25.0. Univariate analysis was done. The Chi-square analysis was used to assess initial associations between the independent and outcome variables. Chi-square analysis was used to test association between independent variables and academic performances in surveyed students. P was set at $P \leq 0.05$. Ethical clearance for this study was gotten from the ethics and research committee of the ministry of health and permission was sought from the management of the institution.

Results of the Study

Table 1: Socio-demographic characteristics of respondents

Characteristics	Frequency (n=105)	Percent
Program		
Nursing	62	59.6
Midwifery	42	40.4
Cohort		
Nursing cohort 1	6	5.8
Midwifery cohort 1	24	23.0
Nursing cohort 2	20	19.2
Nursing cohort 3	33	31.7
Midwifery cohort 2	17	16.3
Mean Age		
20.15 ± 7.533		
Sex		
Male	15	14.4
Female	88	84.6
Family visits		
Weekly	30	28.8
Bimonthly	10	9.6
Monthly	24	23.1
Nil	38	36.5
Dependents		
Yes	62	59
No	42	40

Family Size		
<3		
>3	15	14.4
	67	83.7
Monthly allowance		
<10,000	52	49.5
10,000-20000	18	17.1
21000-30000	25	23.9
>30000	28	26
Others		

Mean Age **20.15 ± 7.533**

Fig 1: Academic Performance

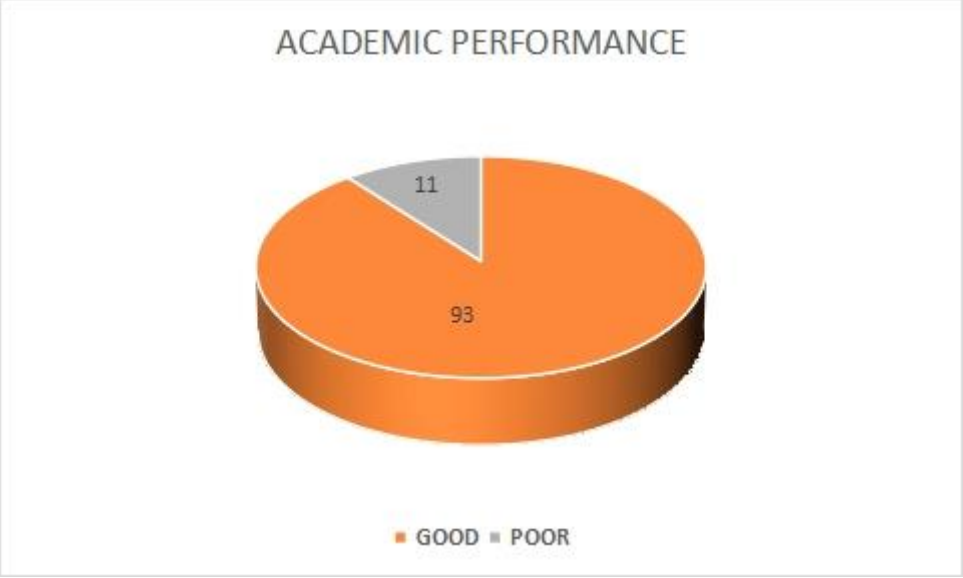

Table 2: Relationship between academic performance and examination preparation

Variables	Academic Performance		p-value
	Poor	Good	
How many hours do you study			
<3hrs	7 (6.7)	45 (43.3)	0.592+
>5hrs	1 (1)	17 (16.3)	
4-5hrs	3 (2.9)	31 (30)	
Sleeping hours per day			
< 4hrs	5 (4.8)	40 (38.5)	0.061+
5-6 hours	3 (2.9)	48 (46.1)	
7hrs & above	3 (2.9)	5(4.8)	
Library time (n=89)			
Poor	7 (6.7)	50 (48.1)	0.365+
Good	2(2)	30 (29)	
Exam preparation			
<1 month	7 (6.7)	29 (28)	0.249+
>1 month	4 (3.8)	64 (61.5)	
Interest in studying			
No	6 (54.5)	5(45.5)	0.017+
Yes	20 (21.5)	73 (78.5)	
Mode of studying for exams			
Discussion with friends	3 (2.9)	25(24)	0.507
Practice past question	0 (0.0)	3 (2.9)	
Reading lecture materials	1(1)	28(26.9)	
Reading lecture notes & textbook	4(3.8)	15(14.4)	
Study alone	3(2.9)	22(22)	

+*Chi-square test*

Table 3: Relationship between socio-demographic characteristics and academic performance.

Variables	Academic Performance		p-value
	Poor	Good	

Program			
Midwifery	3 (7.1)	39 (92.9)	0.519[+]
Nursing	8 (12.9)	54 (87.1)	
Marital status			
< Married	1 ()	7 ()	0.895[+]
Single	10 ()	86 ()	
Average monthly income			
<10,000	5 (6.7)	47 (0)	0.594[+]
10,000-20,000	2 (2)	16 ()	
21,000-30,000	0	9	
>31,000	4	21	

[+]*Chi-square test*

The mean age of the students was **20.15 ± 7.533.** More than half of the respondents [62 (59.6%)] are nursing students, with Nursing cohort 1 having the least response [6(5.8%)] due to attrition. A greater proportion of students [38(36.5%)] do not go home till end of the semester. Majority of the respondents are females [88 (84.6%) while less than half of the students [15 (14.4%) are males.

Majority of the students [93(89%)] had good academic performance while less than half [11(11%)] had poor academic performance

Moreso, students who studied for more than five hours [17 (16.3%)] had good academic performance. While those [45 (43.3%)] who studied for less than three hours daily also had good academic performance. One third of the students who slept for 5-6 hours [48(46.1%)], less than 4hours [40(38.5%)] daily had good academic performance. This did not show any significance with academic performance of students (p=0.061).

Off the students who utilized the library, more than half of them [50(48.1%)] who poorly utilized the library had good academic performance while on thirty students (29%) had good utilization of the library and academic performance. Students [64(61.5%)] who used more than one month to prepare for examination had good academic performance compared to twenty-nine (28%) who prepared for exam less than a month. How this did not show any statistical association (p=0.249) with academic performance. More than half of the respondents [73(78.5%)] who had interest in studying had Good academic performance compared to twenty students (21.5%) who showed poor academic performance. Interest in studying was statistically significant (p=0.017) with academic performance. Program (p=0.519), marital status (p=0.895), and average monthly income (p=0.594) did not show association with academic performance.

Discussion

Majority of the students had good academic performance while less than half had poor academic performance. This is similar to a study in Ethiopia that reported good academic performance among students (Tadese, 2022). Internet is beneficial to students; it enhances their capabilities and skills during their studies. Moreso, the good academic performance reported is due to the robust educational resources and internet available to student's which students access for research purposes, assignments, and presentations. Similarly, Emeka and Nyeche (2016) argue that the Internet is beneficial for students, which enhances their capabilities and skills which are helpful in their studies. Not having students exposed to other learning sources will lead to poor academic performance which will lead to prolonged stay in school [Abrazak, 2019; Yigermal, 2017]. Poor academic performance will lead to student drop out from school (Chohan, 2018).

This study found that students who studied, sleep less, spent time in the library and prepare early for exams had good academic performance. Crede and Mushtaq (2012) reported that study hours improve

academic performance of students. Moreso, the quest to improve students' current and future life stimulate students to do better academically (Kell et al., 2013).

This study found that, students who had interest in studying had good academic performance. Interest in studying showed association with academic performance. The clinical nature of the profession encourages students to study. This similar to findings in a previous study that found academic performance associated with faculty (Tadese, 2022). learning ability is one of the factors that influenced students' academic performance in higher education. Learning ability is where students are capable of doing their best in their studies including motivating themselves in achieving what they want in their studies and life (Sivrikaya, 2019).

Factors that play a role in satisfaction are the student's interest in the subject and their eagerness to understand it. Their attitude toward learning activities is affected by their personal characteristics, and this is especially true for group activities (Lee 2008). Program, marital status, monthly income did not show any association with academic performance. This is different from a study that found that students who visit their families on a weekly basis were more likely to have better academic performances than those in corresponding categories (Ekwochi U, 2019). Also a study in Indonesia found that students who had good academic achievements have higher income, better employment benefts, and more advancement opportunities [Tentama, 2019]. In conclusion, good academic performance can help students attain their desire future goals. It is important that nursing students study hard to attain it and prevent dropping out from school and prolong stay in the institution.

Limitation of the study

This study is limited by our criteria for assessing academic performance in surveyed students which was based on the feedback from the nursing students which was not verified by viewing official results. This may have been a potential source of bias due to the possibility of unwillingness of some respondents to admit their real results.

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DRIVE FOR MONEY AND SUBSTANCE USE AS CORRELATES OF PSYCHOSOCIAL BEHAVIOUR AMONG IN-SCHOOL ADOLESCENTS IN ILISAN-REMO, IKENE LOCAL GOVT. OGUN STATE, NIGERIA

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Abstract:

Every society that will be good and viable should be able to have youths or young ones that are positively minded, more focused with their academic and career, and have the ability to channel their thinking positively to make themselves and their society better, and this could only be achieved when the youths and adolescents are psychologically balanced, and have positive psychological and social behavior. Psychosocial behavior is the interplay between individual psychological and social influences, unraveling the complexities of our actions and reactions. While psychosocial behavior can be both positive (resilience, optimism, social interaction or engagement, emotional stability, assertiveness) and negative (drug abuse, cyber fraud, stealing, kidnapping, rapping, cultism). An adolescent with positive psychosocial behavior will make their environment lively, convenient and safe for living, they tends to have stronger and more supportive relationship with people and peers but when it is otherwise, the adolescents are vulnerable, they may struggle with fitting in or be prone to bullying, which can affect their thinking pattern and their social experience They may be influenced by the things around them and this will dictate to them to go for what they want rather than what they need, which makes such adolescents to be emotionally unstable, tempted to engage in lots of risky behaviors, thereby making them a bad influence to their peers and a "time bomb" to the society at large.

However, it has been observed that there are negative psychosocial behavior been exhibited by Nigerian adolescents and the issue of adolescents social decadence has become a contemporary problem in Nigeria and this has attracted the attentions of researchers and scholars from different disciplines of life (Adenike, 2013; Wang, Liu, & Ryan, 2022). Presently, adolescent's delinquent behaviors such as drug abuse, kidnapping, raping, carrying of dangerous weapons, cyber fraud, examination malpractice, stealing and cultism seem to be on increase in Nigeria (Adenike, 2013; Ugwu. 2016). These behaviors of affluence and influence have in ways impacted some negative psychological and sociological effects on not only the adolescents but on their families and the society at large (Toyin & Aderemi, 2013). This study will focus on two major area that are likely to influence the negative psychosocial behavior of adolescents and these are drive for money and substance use.

The drive for money refers to one's desire and aspiration for money (rather than one's need for it or greed), including affective, behavioral, and cognitive components (Trucco, Villafuerte, Burmeister &

Zucker,2008). According to Schulenberg et al., (2022). there is an exponential increase in materialism in today's society, and the drive to get rich within a short time have contributed to the rise in financial desires among adolescents, making them to see money as a means of achieving social status, independence, and personal success. Research has further been shown that adolescents who place a high value on money and material possessions may exhibit riskier behaviors to achieve financial goals, including engaging in theft, fraudulent activities, or labor exploitation (Dittmar, Bond, Hurst & Kasser, (2014). Moreover, the pressure to contribute financially to the household, especially in low-income families, may further exacerbate this drive. Rhee et al., (2022), said financial stress at home can cause adolescents to seek various means of income, including working under harmful conditions or engaging in illegal activities. These financial motives do influence adolescents' psychosocial behavior by encouraging competition, risk-taking, and impulsivity, while also impacting their academic performance and emotional stability.

Substance abuse among adolescents is a well-documented issue that has long been linked to adverse psychosocial outcomes. According to Ames (2021). The abuse of substances such as alcohol, tobacco, marijuana, and harder drugs is often initiated due to peer influence, stress, the need for escapism, acceptability or curiosity. The accessibility of these substances has compounded the issue of psychosocial behavior. Adolescents may turn to substance use for various reasons, including peer pressure, stress relief, and the desire for social acceptance. The consequences of such behavior are profound, often leading to addiction, mental health issues, and an increased likelihood of engaging in criminal activities (Ames,2021). Substance abuse has been associated with an increased likelihood of aggression, delinquency, poor academic performance, and mental health problems such as anxiety and depression (Chaplin, . Hill & John ,2020). Consequently, substance abuse can have far-reaching effects on an adolescent's psychosocial development, as it often leads to changes in mood, cognition, and behavior. Hence,the following hypotheses are formulated:

$H_0$1: There is no significant relationship between drive for and psychosocial behavior of the in-school adolescents in Ilisan- Remo, Ikenne Local Government Ogun State Nigeria.

$H_0$2: There is no significant relationship between substance abuse and psychosocial behavior of in-school adolescent in Ilisan-Remo, Ikenne Local Government, Ogun State;

$H_0$3: There is no significant combined influence of substance abuse and drive for money on psychosocial behavior of in-school adolescents in Ilisan-Remo, Ikenne Local Government, Ogun State; Nigeria.

Methodology:

Research Design

The study adopted a correlational research design. The choice of this particular design is based on the fact that the researchers ascertained the relationship between independent variables (Drive for money and substance use) and dependent variables (psychosocial behaviors) of in-school adolescents.

Population of the Study

The population of this study consists of 919 in-school adolescents, categorically from SSS 1-3 in privates and public senior secondary schools in Ilisan-remo, Ikene Local Government, Ogun State Nigeria. Six

public and private secondary schools were used, the public and private schools selected in this study are large with a moderate high population of students.

Population of Six Selected Public and private Senior Secondary Schools in Ilisan- remo and the Number of students

S/N	School	Senior Secondary School (SSS 1-3) Students' Population		
		Male	Female	Total
1	Isanbi Model high school	28	32	60
2	G.J Corner Stone High School	36	30	66
3	Ilisan High School	175	197	372
4	Isanbi comprehensive High School	98	112	210
5	Al-Lateef comprehensive high school	53	58	111
6	De-Unique international high school	47	53	100
	TOTAL	427	470	919

Source: Secretary's office, Zonal Education Office, Ikenne Local Government Area, and Researcher's computation, 2024.

Sample Size and Sampling Techniques

The researcher adopted a stratified random sampling techniques for the study to ensure that every member of the population has equal and independent chance of being selected. Six public and private senior secondary schools in Ilisan-Remo were selected being an area the researcher has lived for some years. The schools were chosen based on proximity cost and availability of required data. The sample size of this study is 279 Senior Secondary school students determined using Taro Yamane's (1967) formula, was chosen from the population through the simple random sampling techniques. The first stage of the sampling process involves the selection of secondary schools that were used. The second stage of the sampling procedures entails the determination of the number of students that were selected from each of the schools through random sampling such that the number of students chosen from a school depends on the relative number of the students in the school. The third and final stage of the sampling process involves the actual selection of the required number of students from each of the schools through the simple random sampling technique.

The formula assumed a 95% confidence level and a 5% precision or error level. Consequently, the equation is:

$n= N[1+N(e)2]$

Where: n = sample size

N = population size, and

e = precision level (0.05)

$n = 919/[1+919(0.05)2]$ $n = 279$

Thus, the sample size of the study is 279 students.

These 279 Senior Secondary School students were proportionately distributed in Table 3.2 as the sample size for each school, using Taro Yamane's (1967) formula.

Sample of Senior Secondary Schools and the Number of Students Selected

S/N	School	Sample
1	Isanbi Model High School	18
2	Corner Stone High School	20
3	Ilisan High School	113
4	Isanbi Comprehensive High School	64
5	AL-Lateef Comprehensive high school	34
6	DE-Unique International high school	30
	TOTAL	279

Source: Researcher's computation, 2024.

Research Instrument

The instruments used for data collection of this study is questionnaire consisting of four parts. Part A and B was designed by the researcher while part C and D was adopted.

Questionnaire - A structured and self-developed questionnaire was used and adopted by the researcher, incorporating validated scales to measure the drive for money, substance abuse, and psychosocial behavior. The questionnaire consists of four sections:

Demographic Data Inventory (DDI)

This was constructed by the researcher and was utilized to gather data on some demographic features of the participants such as Age, gender, class, and school.

Drive for Money Inventory (DFMI)

This section measures adolescent's drive for money. It was self-developed by the researcher through study of the attributes attached to money drive, discovered through the literature. It consists of 11 items in a Likert type scale with five points responses ranging from 1= strongly disagreed to 5=strongly agreed.

Substance Abuse Inventory (SAI)

This section measures adolescent's interest or involvement in substance use.

This is a self-report paper-and-pencil test developed by Animashahun (2007), and which assesses an individual's propensity to substance use. It is formulated as a 5-piont Likert type scale with responses

ranging from 1= strongly disagreed to 5=strongly agreed. The test has been found to have sound psychometric indices of reliability and validity.

Psychosocial Behavior Inventory:

This section measures adolescent's psychosocial behavior using strength and difficulties questionnaire (SDQ) developed by Robert Goodman in (1997), is a brief 25-items of behavioral and emotional difficulties that can be used to assess mental health problems in child and adolescents and 12 items were selected for the purpose of this study. It is formulated as a 5-piont Likert type scale with responses ranging from 1= strongly disagreed to 5=strongly agreed. The test has been found to have sound psychometric indices of reliability and validity.

Validity of the Instrument

Validity is when an instrument measure what it's intended to measure, (Ghauri & Gronhaug, 2005). A copy of the instrument was sent to the study supervisor and was given to an experts in test and measurement to comment and critique for improvement prior to printing and administering. Their suggestions, modifications, and comments were incorporated into the final draft of the instrument. Guaranteeing that the instrument measures the items it is intended to measure.

Reliability of the Instrument

Reliability is the consistency of the instrument, this is when an instrument is able to measure what it's supposed to measure over time. The instruments was subjected to a test-retest which was conducted at two weeks' interval. Cronbach Alpha reliability co-efficient was used to ascertain the reliability of the instrument. A pilot study was conducted using sample of 40 senior secondary students in Ikene local government area of Ogun state, which is outside the study area but having similar demographic characteristics. After an interval of two weeks the instruments was again administered on the same set of students. The data obtained will be subjected to Cronbach's alpha reliability test to establish the internal consistency of the items. Results from the test were used to determine items included in the questionnaire.

Serial number	Scales	No of items	Cronbach's Alpha Coefficient
1.	Drive for money	11	.727
2.	Substance use	8	.843
3.	Psychosocial behavior	11	.863
4	Total	30	.861

Source: Researcher's pilot study

Method of Data Collection

The students were met in their classrooms, intimated with the purpose of the study, and were informed of their freedom to decide on participating or not to participate in the exercise, then the students who decided

to participate were encouraged to give truthful and sincere responses to the questionnaire items with the assurance that information disclosed by them will be treated as confidential. Thereafter, the researcher and her assistants collected the completed questionnaires immediately and thanked the respondents and school authority for their co-operation and participation in the study. Furthermore, data analysis was performed on the collected data.

Methods of Data Analysis

The hypotheses was tested at 0.05 significance or error margin. The first and second hypotheses was analyzed using the Pearson's product-moment correlation coefficients, while the third hypothesis was tested by means of multiple regression analysis. The statistical package for the social sciences (SPSS) version 26 programed was used to carry out all analyses.

Results:

$H_0$1: There is no significant relationship between drive for money and psychosocial behavior of the in-school adolescents in Ilisan- Remo, Ikenne Local Government Ogun State Nigeria.

Table 1: Pearson's product-moment correlation coefficients on the relationship between drive for money and psychosocial behavior of in-school adolescent in Ilisan-Remo, Ikenne Local Government, Ogun State

		Drive money	psychosocial behavior
Drive money	Pearson Correlation	1	.448**
	Sig. (2-tailed)		.000
	N	279	279
psychosocial behavior	Pearson Correlation	.448**	1
	Sig. (2-tailed)	.000	
	N	279	279

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1 reveals that there is a significant relationship between drive for money and psychosocial behavior of the adolescents in Ilisan- Remo, Ikenne Local Government Ogun State Nigeria.

The drive for money show a high positive relationship of 0.448* which is significant at a level of 0.05. Thus, the hypothesis of no significant relationship is hereby rejected and the alternate is accepted.

$H_0$2: There is no significant relationship between substance abuse and psychosocial behavior of in-school adolescent in Ilisan-Remo, Ikenne Local Government, Ogun State;

Table 2: Pearson's product-moment correlation coefficients relationship between substance abuse and psychosocial behavior of in-school adolescent in Ilisan-Remo, Ikenne Local Government, Ogun State

		Substance Abuse	psychosocial behavior
Substance_Abuse	Pearson Correlation	1	.017
	Sig. (2-tailed)		.781
	N	279	279
psychosocial behavior	Pearson Correlation	.017	1
	Sig. (2-tailed)	.781	
	N	279	279

Table 2: reveals that there is no significant relationship between substance abuse and psychosocial behavior of the adolescents in Ilisan- Remo, Ikenne Local Government Ogun State Nigeria.

Substance abuse show a positive and insignificant relationship of 0.017 which is greater than 0.05. Thus, the hypothesis of no significant relationship is hereby accepted and the alternate is rejected.

$H_0$3: There is no significant combined influence of substance abuse and drive for money on psychosocial behavior of in-school adolescents in Ilisan-Remo, Ikenne Local Government, Ogun State; Nigeria.

Table 3: Summary of regression analysis for the combined influence of substance abuse and drive for money on psychosocial behavior of in-school adolescents in Ilisan-Remo, Ikenne Local Government, Ogun State; Nigeria.

					Change Statistics				
Model	R	R^2	Adj. R^2	SE	R^2 Change	F Change	df1	df2	Sig. F Change
Predictor Variables	.449[a]	.201	.196	7.91758	.201	34.801	2		.000

a. Predictors: (Constant), substance abuse, and drive money
b. Dependent Variable: Psychosocial behavior

The results in Table 3 indicated that with all the predictor variables (substance abuse and drive for money) in the regression model jointly influenced Psychosocial behavior (R = .449[a]; R^2 = .201; *Adj.* R^2 = .196; F (278) = 34.801; p = .000). This showed that all the predictor variables accounted for 19.6% of the

variance to psychosocial behavior. The null hypothesis which stated that there is no significant combined influence of substance abuse and drive for money on psychosocial behavior of in-school adolescents in Ilisan-Remo, Ikenne Local Government, Ogun State; Nigeria was rejected by this finding. This implies that there is a significant combined influence of substance abuse and drive for money on psychosocial behavior of in-school adolescents in Ilisan-Remo, Ikenne Local Government, Ogun State; Nigeria.

Table 4: Beta Coefficients for relative contributions of substance abuse, drive money on the prediction of psychosocial behavior

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t-ratio	Sig.
1	(Constant)	19.410	2.273		8.540	.000
	Drive money	.490	.059	.451	8.337	.000
	Substance abuse	-.043	.072	-.032	-.593	.554

a. Dependent Variable: psychosocial behavior

The results in Table 4 revealed the strength of causation of the predictor variable on the criterion variable. It was shown that all the two (2) predictors were potent enough to predict psychosocial behavior. The most potent predictor of psychosocial behavior among the predictor variables of the study is drive for money ($\beta = .451$; $t = 8.337$; $p < .05$). Substance abuse is the next potent factor ($\beta = -.032$; $t = 5-.593$; $p > .05$) in the prediction of psychosocial behavior.

Discussion:

The first hypothesis stated that there is no significant relationship between drive for money and psychosocial behavior of the adolescents in Ilisan- Remo, Ikenne Local Government Ogun State Nigeria. This hypothesis was rejected based on a significant positive correlation which indicates that as students drive for money increases, their psychosocial behavior also tends to increase. This suggests that students who feel pressured to earn money while still in school are more likely to experience emotional distress, anxiety, or engage in risky behaviors. The implication of this result is that students who feel a strong need to earn money may experience stress, anxiety, or even depression, affecting their well-being. Also, economic pressure may drive students to engage in risky behaviors such as dishonesty, skipping school, or associating with negative influences.

Previous studies corroborated these findings that drive for money increase and endangers students' psychosocial behavior (Ames et al., 2021; Chassin et al., 2022; Dittmar et al. 2021; Maggs et al., 2023). The authors further agreed that adolescents with a strong focus on acquiring wealth may exhibit more competitive and less cooperative behavior. This competitive drive can strain friendships and reduce opportunities for meaningful social interactions, potentially leading to social isolation.

The second hypothesis stated that there is no significant relationship between substance abuse and psychosocial behavior of in-school adolescent in Ilisan-Remo, Ikenne Local Government, Ogun State; this means that peer influence and availability of substances do not have a measurable impact on emotional

instability and risky behavior among respondents. This shows that most respondents strongly disagreed with statements indicating substance use, suggesting low levels of drug experimentation. The implication of this result is that, since substance abuse is not a major contributor to psychosocial problems in this study, intervention efforts should prioritize other factors such as economic pressure and mental health support.

Previous studies such as Saxena and Agrawal (2021) and Moksnes et al., 2022) corroborated this findings and affirms that in populations where substance use prevalence is low, its impact on mental health and risky behavior is minimal.

The third hypothesis stated that there is no significant combined influence of substance abuse and drive for money on psychosocial behavior of in-school adolescents in Ilisan-Remo, Ikenne Local Government, Ogun State; Nigeria. Since the overall model is statistically significant ($p < 0.001$), the null hypothesis is rejected, and the alternative hypothesis is accepted. This means that the combination of drive for money and substance abuse significantly influences psychosocial behavior, but drive for money is the dominant factor in this relationship. This result implies that adolescents who feel pressure to earn money while still in school may experience emotional distress, anxiety, or engage in risky behaviors to cope with financial expectations. Since only 20.1% of the variance in psychosocial behavior is explained by these two factors, other influences such as peer pressure, academic stress, or family dynamics may play a more significant role.

Volkow et al., (2022) and Sussman and Lisha (2020) in their studies agrees with the findings of this study. Their study affirms that economic stressor, including financial expectations from families, are key predictors of emotional instability and risky behaviors in adolescents. Similar to this study's findings, Wray-Lake, Crouter, and McHale (2018) emphasized that adolescents under economic pressure may engage in risky behaviors due to anxiety, social comparison, or the need to support their families. Volkow et al., (2022) found that financial concerns among adolescents lead to stress, anxiety, and an increased likelihood of risk-taking behaviors. Their study aligns with this research by confirming that economic stress plays a stronger role in shaping adolescent behavior than substance use does in some populations. The result of Dittmar et al. (2021) demonstrated that financial instability among adolescents leads to a variety of psychosocial challenges, including low self-esteem, academic struggles, and behavioral problems.

Some studies disagreed with the findings of this study, Richins and Dawson (2022) contradicts the current findings by establishing **a** strong link between adolescent substance use and psychosocial distress. **Their study argue that** substance use is often a coping mechanism for emotional instability and stress, leading to behavioral problems. This contradicts the present study, which found that substance abuse had no significant impact on psychosocial behavior. Chaplin and John (2019) in their study found that substance use contributes to anxiety, depression, and impulsive behaviors in adolescents. The contradiction with the present study may be due to differences in cultural and social environments, where substance abuse may not be as widespread among adolescents in Ilisan-Remo. Also, according to Schulenberg and Maggs (2019), since economic stress was found to significantly impact psychosocial behavior, schools and policymakers should implement financial literacy programs and scholarship opportunities to reduce financial pressure on students. In addition, providing **counseling and career** guidance **can** also help students manage family expectations regarding financial contributions.

Conclusion and Recommended:

As adolescents experience higher drive for money, they may face emotional distress, anxiety, and engage in risky behaviors. While substance abuse did not show a major influence in this particular sample, the drive for money was found to be a dominant factor in shaping psychosocial behavior.The following were recommended:

Provide Career Guidance and Counseling: Adolescents should be offered counseling services and career guidance to manage family expectations and navigate the pressures of academic and financial success. This could help reduce the anxiety and distress associated with financial concerns.

Focus on Social Support Systems: Strengthening social support networks, including peer and family relationships, can provide a buffer against emotional instability. Schools and communities should foster environments that encourage cooperation and reduce competitiveness.

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INTERNAL EFFECIENCY OF PUBLIC SECONDARY SCHOOLS IN ABEOKUTA NORTH LOCAL GOVERNMENT AREA,

OGUN STATE 2021 - 2024

BY

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Abstract:

This study examines the internal efficiency of public secondary schools in Abeokuta North Local Government Area (LGA), Ogun State, Nigeria, between 2021 and 2024. The research evaluates resource adequacy, wastage rates, and the factors contributing to inefficiency in these schools. Employing a mixed-method approach, both quantitative and qualitative data were collected to assess the relationship between resource availability and student retention. The study utilized statistical methods such as ANOVA and Pearson correlation analysis to test hypotheses and identify trends in educational resource distribution and wastage.

Findings from the ANOVA test revealed significant differences in resource adequacy across the years analyzed ($F = 4.56$, $p = 0.018$). This suggests that variations in funding, policy changes, and administrative decisions influenced resource distribution. The study also found that inconsistencies in resource allocation contributed to inefficiencies in educational delivery, negatively impacting student performance. Additionally, inadequate infrastructure, outdated instructional materials, and overcrowded classrooms were identified as major contributors to inefficiencies in public secondary schools.

The Pearson correlation analysis established a strong negative relationship between resource adequacy and educational wastages. Specifically, dropout rates correlated at -0.72 ($p = 0.002$), while repetition rates showed a correlation of -0.65 ($p = 0.005$). These results indicate that improved resource allocation significantly reduces dropouts and repetition, leading to enhanced educational outcomes. The study's findings align with previous research, highlighting the need for sustainable investments in school resources to improve internal efficiency.

The study concludes that inadequate resources directly contribute to educational inefficiencies, necessitating strategic interventions by policymakers. It recommends increased investment in infrastructure, timely resource distribution, and improved teacher-student ratios to enhance learning conditions. These measures will minimize wastage, improve student retention, and foster a more efficient public education system in Nigeria.

Key words:

Introduction:

The internal efficiency in public secondary schools has become increasingly important globally, especially as nations strive to improve educational outcomes and economic development. Internal efficiency is the ability of an educational system to maximize outcomes, such as academic achievements and graduation rates, while minimizing inputs like time and resources. An efficient school system ensures that students' progress through the educational stages without unnecessary delays or dropouts, leading to timely graduations and reduced wastage in terms of time and resources. This efficiency is critical, as it directly impacts the workforce quality, national productivity, and social development. Globally, educational efficiency issues are closely tied to socioeconomic and political factors. In low-income countries, factors such as inadequate funding, teacher shortages, overcrowded classrooms, and lack of learning materials contribute to high dropout rates and grade repetition. UNESCO (2017) notes that in sub-Saharan Africa, inefficiencies in secondary education are partly due to economic constraints that limit educational investment, and thus hinder access to quality education. On the other hand, in high-income countries, internal efficiency is impacted by policies that emphasize student support services, curriculum standardization, and technological integration, which have been shown to reduce dropout rates and improve overall academic performance (OECD, 2019).

The Nigerian education system, particularly at the secondary school level, faces numerous challenges that hinder its effectiveness. In Nigeria, public secondary schools often struggle with high levels of inefficiency, as evidenced by low graduation rates, high repetition rates, and elevated student dropout levels. These issues are linked to chronic underfunding, poor infrastructure, overcrowded classrooms, and the inadequate training and remuneration of teachers (Okonjo, 2015). For example, Akomolafe and Adesua (2016) highlight that many Nigerian secondary schools lack basic facilities such as laboratories, libraries, and textbooks, which hampers students' learning and contributes to academic underachievement. Also, the internal efficiency of public secondary schools in Ogun State, Nigeria, is a critical area of concern due to its direct impact on educational outcomes and the socio-economic prospects of the region. Ogun State, like many states in Nigeria, faces challenges that compromise the efficiency of its public secondary education system, including high dropout rates, low graduation rates, and high levels of grade repetition. These inefficiencies are largely attributed to factors such as inadequate funding, overcrowded classrooms, insufficient teaching materials, and the scarcity of well-trained teachers (Ogunleye & Owoeye, 2019). Studies indicate that many public secondary schools in Ogun State operate with minimal resources, often lacking essential facilities such as laboratories, libraries, and sufficient classroom space. This lack of resources limits students' learning experiences, contributing to low academic performance and ultimately impacting the completion rate in secondary education (Adeyemi & Ijaiya, 2017). One critical issue is internal efficiency, which affects the overall quality of education. Abeokuta North Local Government Area (LGA) in Ogun State is not immune to these challenges. Public secondary schools in this region face issues such as high dropout rates, repetition, wastage, and inadequate teacher quality. These problems have significant implications for the educational outcomes of students and the overall development of the region.

The Public secondary schools in Ogun State are managed and funded by the State Government to provide a platform for students to acquire knowledge/skills which enable them to proceed to various tertiary institutions and also to contribute to the development of the State. Despite the government's efforts to fund public secondary schools and address inefficiencies, issues such as wastage, dropout rates, and poor teacher quality continue to rise, contributing to greater inefficiency in the educational system rather than improving its effectiveness. Internal efficiency, being the ability of schools to optimize resource

utilization, minimize waste, and maximize academic performance is the priority of Government at all levels. Internal efficiency shows the correlation between input and output at a specified time in the educational system. The inputs comprise students, staff personnel, funds and other facilities such as the physical infrastructure, equipment, and resources that are essential for providing a conducive learning environment in schools and other educational institutions, while the output is the graduates. Ngari (2020) posited that internal efficiency has to do with the input and output ratio in a given system. He equally stated that internal efficiency is attained when there is maximum enrolment in a cohort and the maximum number of graduates from the same cohort at the end of the specified education cycle.

Kolawole and Ogbiye (2020), opined that schools are said to be internally efficient when there is a non-existence of educational wastages (such as dropouts and repeaters) which are caused mainly by increased enrolment rate, high students - teacher ratio, inadequate manpower both in quantity and quality, inadequate educational facilities among others. Ayodele and Ogbiye (2018); Ayodele and Adeleke (2015) and Ileuma (2017) postulated that an internally efficient educational system is a system that turns out graduates' without wasting any student-year non-having dropouts and repeaters.

A study conducted by the Nigerian National Bureau of Statistics in 2019 revealed concerning dropout rates in Ogun State, specifically highlighting disparities between primary and secondary education levels. In primary schools, the dropout rate was reported at approximately 14.1%, suggesting that a significant portion of students do not transition smoothly from primary to secondary education. The situation was even more pronounced in secondary schools, where the dropout rate was about 24.1%. This indicates that nearly a quarter of secondary school students in Ogun State, including those in Abeokuta North, leave school before completing their education. These rates reflect underlying systemic challenges that undermine educational efficiency and emphasize the urgent need for targeted interventions to retain students through to graduation, thereby reducing wastage and enhancing the overall efficiency of the educational system in the region. The dropout rate in Nigerian secondary schools is alarming according to UNICEF (2020), reporting that around 30% of students do not complete their secondary education. This high rate of dropout reflects significant barriers to sustained student engagement, which often stem from socio-economic and structural challenges within the education system. The study further revealed that schools often lack sufficient funding, leading to overcrowded classrooms, poor infrastructure, and minimal support for students struggling academically. These systemic issues create an environment where students are less likely to succeed or feel motivated to continue their studies, ultimately pushing many out of the education system before completion.

Hence, the following null research hypotheses are to be tested during the study:

H_{01}: There is no significant difference in the extent of adequacy of resources available to public secondary schools in Abeokuta North Local Government Area between 2021-2024

H_{02}: There is no significant relationship between resources available and educational wastages in public secondary schools in Abeokuta North Local Government Area between 2021-2024.

Methodology:

Research Design

For the purpose of this study, an *ex-post facto* research design will be adopted. This design will be chosen because it allows for the analysis of historical data to identify relationships between the variables

involved. In this study, secondary data on the internal efficiency of public secondary schools in Abeokuta North Local Government Area, Ogun State, will be collected and analyzed to explore the connections between resource allocation, teaching quality, wastage rates, and other relevant factors.

Population of the Study

The population comprises of 27 public secondary schools within the area, including a mix of junior and senior secondary schools. These schools are located in various parts of the local government area and will be part of the broader educational system in Ogun State, regulated and overseen by the Ogun State Ministry of Education.

The schools within this population vary in size, ranging from small institutions with fewer than 300 students to larger schools with over 3,000 students. The total student population across these 27 schools is amounted to 31,404 students,

Table 3.1 Population Distribution Table

S/N	School	School Address	Number of Staff/Student
1	African Church Grammar School	Obasanjo Way, Ita-Iyalode, Abk	3,034
2	African Church Grammar School, (Jnr)	Obasanjo Way, Ita-Iyalode, Abk	2,147
3	Ajiboyede Comprehensive High School	Ibara Orile, Abeokuta North, Ogun State	461
4	Ansar-Ud-Deen Grammar School	Isaga Orile, Abeokuta North	283
5	Army Day Secondary School Junior	Along Ayetoro Road, Alamala Barracks Abeokuta	1,219
6	Army Day Senior Secondary School	Alamala Barracks	808
7	Ebenezer Grammar School Junior	Iberekodo, Abeokuta, Ogun State.	793
8	Ebenezer Grammar School Senior	Iberekodo, Abeokuta	1,072
9	Gateway Secondary School	Ita-Iyalode, Abeokuta	1,386
10	Gateway Secondary School (Senior)	Ita Iyalode, Abeokuta	850
11	Idi Emi High School	Idi Emi, Abeokuta	264
12	Ikija High School Iberekodo Abeokuta.	Isale Oja, Iberekodo, Abeokuta.	804
13	Ilewo Community High School, Ilewo Orile	Ilewo Community High School, Along Farm Road, Ilewo	197
14	Ilugun High School [(Senior), Elega	Along Federal Housing Estate, Elega, Abeokuta	1,652
15	Ilugun High School Junior	Federal Housing Estate Road, Elega, Abeokuta	1,864
16	Imala Community Grammar School, Imala	Imala Community Grammar School, Imala, Abeokuta North	256
17	Lafenwa High School (Senior), Lafenwa	Opposite Ayetoro Garage, Ayetoro Road, Lafenwa	1,343

		Abeokuta	
18	Lafenwa High School, Junior, Abeokuta	Lafenwa High School Junior, Ayetoro Road, Abeokuta	1,884
19	Oke Ona Grammar School	Opeji Road, Iberekodo, Abeokuta	1,335
20	Olorunda Community High School	Ayetoro/Imeko Road, Olorunda	389
21	Olumo High School	Sabo, Abeokuta	1,477
22	Premier Gramar School (Junior)	Ayetoro Road, Lafenwa, Abeokuta	1,823
23	Premier Grammar School (Snr)	Ayetoro, Road Lafenwa, Abeokuta	1,538
24	St Peters College	Olomore Junction, Olomore	1,104
25	St Peter's College Junior	Olomore, Abeokuta	1,260
26	Unity High School (Junior)	Ago-Ika, Abeokuta	1,195
27	Unity High School (Senior), Ago-Ika, Abeokuta, Ogun State	Beside Trinity Baptist Church, Ago-Ika, Enugada, Abeokuta, Ogun State	966
	Total		**31,404**

Source: Ogun State Ministry of Education, 2024

Sampling and Sampling Technique

To ensure a robust and meaningful analysis, seven public secondary schools were purposively selected based on criterion of using big school with population of 1,500 and above. While the total number of schools in Abeokuta North Local Government Area is 27, the selection focused on schools that met predefined criterion to provide comprehensive and reliable data for the study. The selection process was not intended to exclude other schools arbitrarily but was based on ensuring that the schools chosen could meaningfully represent the study's variables.

Instrument for Data Collection

For this study, a structured checklist will is developed as the instrument for data collection. The checklist is designed to obtain relevant information from school administrators, teachers, and education officers records regarding the internal efficiency of public secondary schools in Abeokuta North Local Government Area (LGA) between 2021-2024. The instrument is divided into three sections, each corresponding to the study objectives.

The third part is Causes of Wastage. This will measure the factors contributing to resource wastage such as poor planning, mismanagement, inadequate monitoring, and administrative inefficiencies. It also examines the impact of wastage on student performance and seeks suggestions for reducing inefficiencies.

Validity and Reliability of the Instrument

The validity of this study will be ensured through the accurate and careful extraction of data from official sources, such as the Ogun State Ministry of Education and the relevant school reports. All data used was cross-checked for accuracy and completeness by the researcher, and discrepancies was addressed under the guidance of the supervisor..

To establish reliability, the selected public secondary schools in Abeokuta North Local Government Area were required to comply with the Ogun State Ministry of Education guidelines, ensuring that all data drawn from these institutions are subject to routine checks and supervision. which were verified by official school inspectors and reports. This guaranteed that the data used in this study meet the necessary standards for reliability and consistency.

Method of Data Collection

In line with the nature of this study, secondary data will be utilized. Secondary data refer to information not collected directly for the research project but obtained from existing sources. The use of secondary data is suitable for this study due to its availability, completeness, objectivity, comparability, and reliability, which are essential characteristics of information found in previously published educational records and government reports.

The data will primarily be sourced from official school records, including school reports, and inspection documents, from public secondary schools in Abeokuta North Local Government Area. These records will cover the period from 2021-2024. The data will include details on teacher qualifications, student-teacher ratios, educational facilities, and academic performance. These sources are selected for their reliability and relevance in providing comprehensive insights into resource allocation, teaching quality, and other factors affecting internal efficiency in the selected schools.

Method of Data Analysis

This study will employ graphical, descriptive and inferential statistical procedures for data analysis. Descriptive statistics will summarize and describe the key characteristics of the data, such as the demographic profiles of the selected schools, student population, staff strength, and available educational resources. These statistics will include measures such as frequencies, percentages, and averages to provide a clear overview of the variables under investigation.

For inferential statistics, the study will utilize **Chi-square tests** and **t-tests** to analyze the data. The Chi-square test will be used to assess relationships between categorical variables, such as the association between teacher qualifications and student performance or the adequacy of facilities and educational outcomes. Meanwhile, t-tests will compare means between groups, such as schools with different resource allocations, to determine if observed differences are statistically significant.

These methods are chosen because they align with the type of data being analyzed, which includes both categorical and continuous variables. The use of Chi-square tests and t-tests ensures the analysis is robust and appropriate for understanding the relationships and differences within the dataset. By applying these statistical techniques, the study aims to provide meaningful insights into how resources, teaching quality, and other factors influence internal efficiency in public secondary schools in Abeokuta North Local Government Area.

Results

Hypothesis One

$H_0$1: There is no significant difference in the extent of adequacy of resources available to public secondary schools in Abeokuta North Local Government Area between 2021-2024

Table 4: ANOVA Test of Resource Adequacy Over Years

Source of Variation	SS	df	MS	F	p-value	Decision
Between Groups	3.87	3	1.29	4.56	0.018	Reject H0
Within Groups	13.20	36	0.37			
Total	17.07	39				

The results of the ANOVA test presented in Table 4 provide strong evidence of a statistically significant difference in the adequacy of resources available to public secondary schools in Abeokuta North Local Government Area between the years 2021 and 2024. The F-value obtained from the test is 4.56, and the p-value is 0.018, which is less than the standard significance level of 0.05. This indicates that the variations observed in the availability of resources are unlikely to have occurred by chance, but instead reflect genuine differences in resource allocation over the years.

The test compared the adequacy of resources across the three years in question (2021, 2022, and 2023) and found significant changes in how resources were distributed to the schools. As a result, the null hypothesis (H0), which posited that there was no significant difference in the adequacy of resources over time, is rejected. This suggests that there has been a noticeable change in the resources provided to the schools, which could be due to factors such as government policies, funding changes, or shifts in the priorities of educational authorities in the region.

Given the statistically significant result, it is clear that resource allocation is not static and that schools in Abeokuta North Local Government Area have experienced fluctuations in the resources available to them. These findings highlight the need for further investigation into the specific causes of these changes, such as budget adjustments, infrastructural investments, or changes in educational policies that may have influenced resource distribution. This could help in identifying areas that need improvement and ensuring a more consistent and equitable distribution of resources to public secondary schools in the future.

$H_0$2: There is no significant relationship between resources available and educational wastages in public secondary schools in Abeokuta North Local Government Area between 2021-2024.

Table 2: Pearson Correlation Between Resources and Wastage Indicators

Variable	R	p-value	Decision
Resource Adequacy & Dropouts	-0.72	0.002	Reject H02
Resource Adequacy & Repeaters	-0.65	0.005	Reject H02

The results of the Pearson correlation analysis in Table 5 reveal a significant relationship between the availability of resources and educational wastage indicators in public secondary schools in Abeokuta North Local Government Area between 2021 and 2024. The negative correlation between resource adequacy and dropouts is -0.72, with a p-value of 0.002, which is well below the standard significance level of 0.05. Similarly, the negative correlation between resource adequacy and repeaters is -0.65, with a p-value of 0.005, also indicating statistical significance.

These findings suggest that as the adequacy of resources increases, both the dropout and repetition rates decrease. This implies that better resource availability, such as instructional materials, qualified teachers, and proper infrastructure, may reduce the likelihood of students dropping out or repeating grades. The negative correlations indicate an inverse relationship, meaning that the higher the availability of resources, the lower the educational wastage in terms of dropouts and repeaters.

Given the statistically significant results, the null hypothesis (H02), which stated that there is no significant relationship between resources and educational wastages, is rejected. This demonstrates that resource adequacy plays an important role in mitigating educational wastage in these schools. The findings suggest that addressing resource deficiencies could be an effective strategy to reduce dropout and repetition rates, thereby improving overall educational outcomes in public secondary schools in Abeokuta North Local Government Area.

Discussion of Findings

The results of the ANOVA test on the adequacy of resources over the years indicate a significant variation in the adequacy of resources across the different years analyzed. With an F-value of 4.56 and a p-value of 0.018, the null hypothesis (H0) was rejected, suggesting that the adequacy of resources varied notably from one year to another. This aligns with findings from Oduwole and Osim (2019), who noted that resource allocation in educational institutions fluctuates annually due to changes in government funding, policy priorities, and administrative decisions. The significant differences in resource adequacy could be attributed to varying levels of financial support, shifts in educational policies, or changes in local administrative decisions that directly influence how resources are distributed. These fluctuations may affect the consistency and quality of educational outcomes, as the availability of resources is crucial for creating conducive learning environments.

Furthermore, the Pearson correlation analysis revealed strong negative correlations between resource adequacy and educational wastages, specifically dropouts and repeaters. With correlation values of -0.72 for dropouts and -0.65 for repeaters, the findings suggest that as the adequacy of resources increases, the

rates of dropouts and repetition decrease. These results are consistent with the findings of Omolayo (2015), who emphasized that adequate resources—such as textbooks, teaching staff, and infrastructure—play a vital role in reducing educational wastage. The statistically significant p-values of 0.002 and 0.005 further reinforce the importance of resource availability, highlighting its critical role in enhancing student retention and minimizing repetition rates. This suggests that improving resource adequacy can effectively address educational wastages, ultimately leading to better student outcomes and more efficient use of educational resources.

Conclusion and Recommendation

In conclusion, the findings from this study emphasize the essential role of resource availability in shaping the efficiency of educational delivery and reducing wastage in public secondary schools. The significant relationships observed between resource adequacy and educational outcomes highlight the critical need for consistent investment in school infrastructure, instructional materials, and human resources. The study further reveals that addressing core issues like overcrowded classrooms, outdated instructional materials, and insufficient funding can have a considerable impact on improving student outcomes. By tackling these challenges, schools can reduce repetition rates, minimize dropouts, and enhance overall educational quality. It is evident that inadequate resources contribute to inefficiencies and wastage in the education system, ultimately affecting student retention and academic success. Therefore, policymakers and educational administrators must prioritize adequate resource allocation and efficient management to ensure the development of a more effective, equitable, and high-quality educational system. This approach is vital for fostering better learning environments and improving long-term student performance.

Based on the findings of this study, the following recommendations are made to improve the efficiency of educational delivery and reduce wastage in public secondary schools:

1. **Increased Investment in Educational Resources**: Policymakers and education administrators should prioritize funding to ensure the availability of adequate instructional materials, modern technology, and quality infrastructure. Specifically, investment should be directed toward updating textbooks, expanding digital resources, and enhancing school facilities to meet the needs of students and teachers.

2. **Improving Teacher-Student Ratios**: To address the issue of overcrowded classrooms, the recruitment of additional qualified teachers should be a priority. Schools should aim to maintain an optimal teacher-student ratio that fosters better engagement and individualized attention, thereby reducing repetition and dropout rates.

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FACTORS INFLUENCING STUDENT'S ENGAGEMENT IN PUBLIC SECONDARY SCHOOLS IN IKENNE LOCAL GOVERNMENT AREA, OGUN STATE, NIGERIA

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Abstract

This study assessed factors influencing students engagement in public secondary schools in Ikenne Local Government Area, Ogun State, Nigeria.

The population comprised of SS3 students in Ikenne LGA. A simple random technique was used to select 322 respondents from the selected schools. Student School Engagement Questionnaire (SSEQ) and School Engagement Factors Questionnaire (SEFQ) was used to obtain data on level of students' engagement, personal factor, parental involment factor and school factors. Data obtained were analyzed using descriptive statistics. Pearson Product Moment Correlation (PPMC) was used to test the hypothesis.

Result showed that students are engaged in different school engagement factors that facilitates student engagement in classroom with a mean score for personal factors (m = 3.46, SD = .743); school environment (m = 2.91, SD= 0.889); teaching method (m = 3.45, SD = 0.758); technology use (m =3.52 SD= 0.898); student teacher relationship (m = 3.19, SD = 0.711) and Parental Involvement (m = 3.52 SD= 0.747). PPMC analysis shows that there is a positive significant relationship between personal factors ($r=.135$, $p<0.05$) and school factors ($r=.137$, $p<0.05$). The study concluded that school engagement factors significantly predict students' engagement toward learning. Recommendations were made for improvement of students' engagement in schools.

Introduction

Student engagement plays a vital part in academic success, significantly influencing not only academic success and achievement but also the emotional intelligence outcomes for students. Research has shown that engaged students are more likely to excel academically and experience enhanced social and emotional well-being (Pedler *et al.,* 2020). Although the notion of student engagement is interwoven, Christenson, Reschly, and Wylie (2012) described student engagement as the active involvement and dedication of students to their learning objectives. Moreover, various factors can affect the level of student engagement, including individual characteristics, parental involvement or concern about child's education, the school environment, teaching strategies employed by teachers, technological factors and students-teacher relationship.

For instance, personal factors which encompasses students' behaviors' such as participation and punctuality play an essential role in student engagement. Also, emotions which includes interest, motivation, or attitude whether positive or negative can affect the student willingness to engage in classroom. Similarly, awareness which involve students' strengths, weaknesses and their learning needs are important factors that interact and actively determines students' engagement. Sokmen (2021) noted that students who possess high self-efficacy and motivation which are indicators of personal factors that can affect students' engagement in classroom tend to be more engaged in their learning experiences.

Similarly, parental involvement is another critical factor in promoting student engagement. This is because parents have a substantial impact on their children's educational journey and motivation, and are often the foundation layers, contributing to positive engagement outcomes and academic success (Mose and Villodas, 2017). Yu, Gao, and Wang (2021) also noted that supportive school environment that emphasizes social support, freedom, a sense of competence, and teacher support is essential for fostering student engagement. This also includes integrating technology into lessons such as online discussions, creative presentations, and educational games can significantly boost students' motivation and involvement.

Furthermore, variable such as teaching methods are crucial in fostering student engagement, as the manner in which educators deliver instruction greatly influences students' motivation, participation, and overall learning experiences. Specifically, interactive teaching techniques, including discussions, group work, and hands-on activities, are particularly effective in enhancing student engagement (Gute and Wainman, 2019). Additionally, Wang *et al.,* (2020) found out that cultivating positive student-teacher relationships leads to increased engagement, motivation, and academic success.

It is evident that student engagement is a vital aspect of academic excellence which encompasses emotional and behavioral involvement as it significantly influences motivation, learning and overall educational experience. Despite the importance of students' engagement in achieving academic success and positive educational outcomes, public secondary schools in Ikenne LGA are faced with the challenge of low student engagement, manifesting in poor academic performance. This situation is exacerbated by lack of empirical evidence on the factors that influence student engagement in these schools, making it difficult for educators and policy makers to develop effective strategies to promote student engagement. Therefore, this study aims to investigate the factors affecting students' engagement within public secondary schools in Ikenne Local Government Area.

Methodology

Research Design

This study adopted a descriptive survey design.

Population of the study

The population used for the study comprised of SS3 students in Ikenne Local Government Area in Ogun State. The total population was 1,652 students.

Sampling Size and Technique

Using proportionate random sampling technique, five schools were selected from eleven schools across the towns in the LGA. Taro Yamane's (1974) formula was used to arrive at the sample size for the selected secondary schools.

Taro Yamane's (1974) formula ($n =$), where: n = Sample size (to be calculated);

N = Population of the study area (1,652)

e = level of precision = 0.05. Hence, 322 sample size was generated.

S/N	School	SS3 Student's Population
1	Ilishan High School, Ilishan Remo	283
2	Christ Apostolic Grammar School, Iperu Remo	357
3	Mayflower School, Ikenne Remo	519
4	Ositelu Memorial College, Ogere	262
5	Irolu Community High School, Irolu	231
	Total	**1,652 = (322)**

Since the population sample of each school differs, proportionate sampling technique was employed to draw out appropriate sample size for each school using the formula:

$$(Sample\ size\ for\ each\ school = \frac{\text{Total sample size} * \text{School's population}}{Total\ population})$$

S/N	School	SS3 Student's Population	
1	Ilishan High School, Ilishan Remo	283	55
2	Christ Apostolic Grammar School, Iperu Remo	357	70

3	Mayflower School, Ikenne Remo	519	101
4	Ositelu Memorial College, Ogere	262	51
5	Irolu Community High School, Irolu	231	45
	Total	**1,652**	**322**

Simple random technique was used to select 322 respondents from the selected schools.

Research Instrument and Reliability

A two-parts questionnaire Student School Engagement Questionnaire (SSEQ) and School Engagement Factors Questionnaire (SEFQ) measuring personal Factors, parental involvement factors, school factors (school environment, teaching method, technology and use of technology) was used to gather data for the study. SSEQ had a reliability coefficient of .795. Meanwhile, SEFQ had a reliability coefficient of .786, .871, .967, .954, .852, and .793.

Method of Data Collection

Primary data was gathered through the dissemination of questionnaires.

Method of Data Analysis

Data gathered was analyzed using descriptive statistics of mean. Mean values greater than or equal to 2.55 equals agree while those below 2.55 are disagree. Hypothesis was analyzed using Pearson Moment Correlation Test (PPMC).

Results and Discussion

Research Question One: What is the level of students' engagement in public secondary schools in Ikenne Local Government Area?

Table 1: Students School Engagement

Item	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (m)	Standard Deviation (SD)
I work hard to perform well academically	44 (13.7)	48 (14.9)	45 (14.0)	185 (57.5)	3.15	1.118
I put in my best effort in class	44 (13.7)	42(13.0)	55 (17.1)	181 (56.2)	3.16	1.104

I also actively participate in class discussions at school	41 (12.7)	96 (29.8)	85 (26.4)	100 (31.1)	2.76	1.031
In class, I listen to what my teachers are saying	53 (16.5)	80 (24.8)	90 (28.0)	99 (30.7)	2.73	1.070
Grand Mean					**2.95**	**1.080**

The results from Table 1 show grand mean scores on engagement (*m* = 2.95, *SD* = 1.080). The grand mean shows that the respondents agree on the student's engagement parameters. Meanwhile, the respondents agreed that they work hard to perform well academically (*m* = 3.15, *SD* = 1.118); put in their best effort in class (m = 3.16, *SD* = 1.104); actively participate in class discussions at school (*m* = 2.76, *SD* = 1.031); and listen to what their teachers say (*m* = 2.73, *SD* = 1.070).

Research Question Two: What are the personal factors in public secondary schools in Ikenne local government area?

Table 2: Students Personal Factors

Item	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (m)	Standard Deviation (SD)
I have a strong desire to succeed academically	11 (3.4)	30 (9.3)	120 (37.3)	161 (50.0)	3.34	.786
I make myself objectives and strive to meet them	3 (0.9)	24 (7.5)	102 (31.7)	193 (59.9)	3.51	.676
My current subjects meet my curiosity	1 (0.3)	33 (10.2)	111 (34.5)	177 (55.0)	3.44	.687
I think my academic endeavors will pay off in the long run	9 (2.8)	42 (13.0)	30 (9.3)	241 (74.8)	3.56	.823
Grand Mean					**3.46**	**.743**

The results of Table 2 show a grand mean score for personal factors (*m* = 3.46, *SD* = .743). This implies that the respondents agreed on the personal factor's parameters and that their personal factors have an influence on their engagement in school. Meanwhile, the respondents maintained that they have a strong desire to succeed academically (*m* = 3.34, *SD* = .786); they make personal objectives and strive to meet them (*m* = 3.51, *SD* = .676); their current subjects meet their curiosity (*m* = 3.44, *SD* = .687); and believe their academic endeavors will pay off in long run (*m* = 3.56, *SD* = .823).

Research Question Three: What are the school factors (school environment, teaching methods, teacher students' relationship, use of technology) in public secondary schools in Ikenne local government area?

Table 3: School Engagement Factors

A. School Environment

Item	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (m)	Standard Deviation (SD)
The school's classrooms are roomy and equipped with sufficient supplies	13 (4.0)	31 (9.6)	43 (13.4)	235 (73.0)	3.30	1.070
The school is equipped with well-equipped labs	35 (10.9)	45 (14.0)	31 (9.6)	211 (65.5)	3.55	.827
There are enough reference books in the school library	12 (3.7)	203 (63.0)	56 (17.4)	51 (15.8)	2.45	.801
There are enough well-ventilated classrooms at the school, and there are sufficient medical facilities	13 (4.0)	179 (55.6)	64 (19.9)	66 (20.5)	2.57	.859
Grand Mean					**2.91**	**0.889**

The results of Table 3 show a grand mean score for School Environment factors (*m* = 2.91, *SD* = .889). This implies that the respondents agreed that school environment affects school engagement. Meanwhile, results shows that classrooms are roomy and equipped with sufficient supplies environment have an influence on their engagement in school (*m* = 3.30, *SD* = 1.070); the school is equipped with well-

equipped labs (*m* = 3.55, SD = .827); there are enough reference books in the school library (*m* = 2.45, *SD* = .801); and there are enough well-ventilated classrooms at school and there are sufficient medical facilities (*m* = 2.57, *SD* = .859).

B. Teaching Method

Item	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (*m*)	Standard Deviation (*SD*)
We participate in self-directed learning activities with our teachers	6 (1.9)	34 (10.6)	85 (26.4)	197 (61.2)	3.47	.757
Teachers engage us in class discussions	4 (1.2)	40 (12.4)	81 (25.2)	156 (48.4)	3.34	.783
At the conclusion of each lesson, teachers give students questions to answer	5 (1.6)	47 (14.6)	102 (31.7)	168 (52.2)	3.46	.757
Teachers let us talk to each other in class while we're learning	7 (2.2)	26 (8.1)	72 (22.4)	217 (67.4)	3.55	.736
Grand Mean					**3.45**	**0.758**

The results from table above shows a grand mean score for teaching method (m = 3.45, *SD* = .758). This implies that the respondents agreed with the teaching method parameters. Meanwhile, the respondents maintain that they participate in self-directed learning activities with their teachers (m = 3.47, SD = .757); teachers engage them in class discussions *(m* = 3.34, *SD* = .783); at the conclusion of each lesson, teachers give students questions to answer (m = 3.46, *SD* = .757); and teachers let them talk to each other in class while they are learning (*m* = 3.55, *SD* = .736).

C. Student Teacher Relationship

Item	Strongly Disagree	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (*m*)	Standard Deviation

	(%)					(*SD*)
Teachers work hard to improve student performance	26 (8.1)	31 (9.6)	106 (32.9)	159 (49.4)	3.14	.534
Teachers use their free time to assist students in improving their grades	5 (1.6)	20 (6.2)	127 (39.4)	170 (52.8)	2.98	.703
Teachers are supportive and available to assist students with their academic needs at any time	10 (3.1)	53 (16.5)	193 (59.9)	66 (20.5)	3.43	.682
Teachers encourage their students to consider their future aspirations	5 (1.6)	11 (3.4)	239 (74.2)	67 (20.8)	3.24	.927
Grand Mean					**3.19**	**0.711**

The results from table above shows a grand mean score for student teacher relationship (*m* = 3.19, *SD* = .711). This shows that the respondents agreed that student teacher relationship matters in school engagement. Also, the respondents maintain that teachers work hard to improve student performance (*m* = 3.14, *SD* = .534); teachers use their free time to assist students in improving their grade (*m* = 2.98, *SD* = .703); teachers are supportive and available to assist students with their academic needs at any time (*m* = 3.43, *SD* = .682); and teachers encourage their students to consider their future aspirations (*m* = 3.24, *SD* = .927).

D. Use of Technology

Item	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (*m*)	Standard Deviation (*SD*)
I enjoy classes where technology is incorporated more than traditional setting class	21 (6.5)	41 (12.7)	56 (17.4)	204 (63.4)	3.38	.940
I retain information more when my teacher uses technology related tools	14 (4.3)	5 (1.6)	57 (17.7)	246 (76.4)	3.41	.804

Technology use in class improves my educational experiences	2 (0.6)	97 (30.1)	73 (22.7)	150 (46.6)	3.15	.878
Technology use in various subjects taught is needed in our school	18 (5.6)	84 (26.1)	70 (21.7)	150 (46.6)	3.09	.972
Grand Mean					**3.25**	**0.898**

The results from table above shows a grand mean score for use of technology (*m* = 3.25, *SD* = .898). This implies that the respondents agreed that technology use affects school engagement. Meanwhile, the respondents maintain that they enjoy classes where technology is incorporated more than traditional setting class (*m* = 3.38, *SD* = .940); they retain information more when my teacher uses technology related tools (*m* = 3.41, *SD* = .804); technology use in class improves their educational experiences *m* = 3.15, *SD* = .878); and technology use in various subjects taught is needed in our school (*m* = 3.09, *SD* = .972).

Research Question Four: What is the level of parental involvement in the education of students in public secondary schools in Ikenne Local Government Area?

Table 4: Level of Parental Involvement

Item	Strongly Disagree (%)	Disagree (%)	Agree (%)	Strongly Agree (%)	Mean (*m*)	Standard Deviation (*SD*)
I feel more encouraged when supported by my parents as regards my education	3 (0.9)	56 (17.4)	54 (16.8)	209 (64.9)	3.46	.809
My parents involvement gives me a push forward in my education	3 (0.9)	38 (11.8)	52 (16.1)	229 (71.1)	3.57	.734
Involvement of my parents help me to learn even outside school	7 (2.2)	39 (12.1)	77 (23.9)	199 (61.8)	3.45	.789

My parents' empathy gives me more confidence	1 (0.3)	29 (9.0)	60 (18.6)	232 (72.0)	3.62	.659
Grand Mean					**3.52**	**0.747**

The results of Table 4 show a grand mean score for parental Involvement (*m* = 3.52, *SD* = 0.747). This implies that parental factors are important on students' engagement in school. The result also shows that students feel more encouraged when supported by their parents as regards their education (*m* = 3.46, *SD* = .809); parents involvement gives them a push forward in their education (*m* = 3.57, *SD* = .734); their parents involvement helps them to learn even outside school (*m* = 3.45, *SD* = .789); and their parents empathy gives them more confidence (*m* = 3.62, *SD* = .659).

Hypothesis of the study

H_0: There is no significant relationship between personal factors, school factors, parental involvement and students' engagement in public secondary schools in Ikenne Local Government Area

Table 5: Correlation Analysis of the relationship between personal factors, school factors, parental involvement factors and student engagement in public secondary schools in Ikenne Local Government Area.

Student Engagement	Personal Factors	Parental Factors	School Factors (School Environment)	Teaching Method	Technology Use	Student Teacher Relationship
1	.251	.209	.176	.028	.057	.061
	.000	.000	.024	.611	.304	.279
.251	1	.213	.079	.135*	.049	.032
.000		.000	.158	.016	.383	.568
.209	.213	1	.193	.084	.050	.084
.000	.000		.001	.134	.372	.132
.176	.079	.193	1	.095	.137*	.187
.002	.158	.001		.088	.014	.001

.028	.135*	.004	.088	1	.254	.137*
.611	.016	.134	.088		.000	.014
.057	.049	.050	.137*	.254	1	.233
.304	.383	.372	.014	.000		.000
.069	.032	.084	.187	.137*	.233	1
.279	.568	.132	.001	.014	.000	

***Correlation is significant at the 0.05 level (2-tailed)**

The results showed that there is a significant positive correlation (r=.135, p<0.05) between personal factors and teaching method. This suggests that students' personal characteristics are related to their perceptions of the teaching method. The results further showed that there is a significant positive correlation (r=.137, p<0.05) between school environment and technology use. This indicates that the physical environment of the school is an important factor to the use of technology in the classroom.

Table 5 additionally revealed that there is a significant positive correlation between student-teacher relationship and teaching method (r=.137, p<0.05). This suggests that the quality of relationship the student and the teacher share is related to the teaching method used by teachers. Hence, the null hypothesis was rejected.

Discussion of findings

The first finding shows that respondents work hard to perform well academically, put in their best effort in class, actively participate in class discussions at school and listen to what their teachers say. One of the possible reasons for the findings indicating a generally positive agreement on students' engagement could be their desire to excel academically and achieve educational goals. The result concur with Promethean (2022) who found a significant finding on student engagement. In line with the findings of this study, it submits that engaged students are more likely to be motivated, attentive, and invested in their studies, fostering a conducive environment for effective learning and personal growth.

The second finding revealed that respondents have a strong desire to succeed academically, make personal objectives and strive to meet them, their current subjects meet their curiosity and believe their academic endeavors will pay off in long run. This is in line with Zeng *et al.,* (2020) & Zhang *et al.,* (2020) which revealed that students' personal emotional engagement such as showing attachments to school, earnestness in the classroom and acquiring positive and negative feelings towards academic and social factors in school are all paramount factors that foster engagement in school.

The third finding revealed that school factors such as school environment, teaching methods, use of technology and teacher students' relationship have an effect on students' engagement. This finding is in support of the discovery of Odeh, Angelina & Ezekiel (2015) who outlined that the characteristics of the school environment must include school buildings, furniture's, playgrounds, sporting facilities and other related equipment which aid the teacher's delivery of lesson.

These findings demonstrate the effects of school engagement factors in influencing students' engagements. School engagement factors such as Personal factors, parental factors and school environment can greatly impact students' engagement.

Conclusion

Based on the findings made, the study concluded that that school engagement factors significantly predict students' engagement toward learning. Therefore, it is indicated that some factors needs positive consideration so as to improve students' engagement given the importance of students' engagement in their overall academic achievement and success.

From the findings made, it was recommended that :

- To enhance students' engagement in school, the management board of the secondary school need to focus more on school engagement factors such as personal factors, school environment and parental involvement.
- To increase achievement, it is necessary to pay enough and sufficient attention to the personalities of the students, and teachers should be provided with methodological trainings or advice to address this throughout the educational process.

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VALIDITY AND RELIABILITY OF A SCALE FOR EVALUATING ATTITUDE TOWARDS MATHEMATICS' TEACHER IN ONDO STATE STUDENT POPULATION

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Abstract

This study developed and validated a scale on attitude towards Mathematics Teachers (ATMT) among secondary school students (male and female) in Ondo State, Nigeria. The attitude towards Mathematics (ATMT) Questionnaire (ATMT-Q) emerged from review of the literature and expert consensus. The questionnaire was a subset of a larger questionnaire comprising several domains (cognitive, affective, and behavioral dimensions). Convergent and discriminatory validity was assessed in 2,424 students chosen from the population of 360,000 through stratified random sampling. Content and construct validity were determined through Principal Component Analysis (PCA) and correlation coefficients arising from convergent and discriminant validity analysis. The predictive validity of the scale was confirmed through

Multiple Regression Analysis (MRA). Tests were carried out at the .05 level of significance. A principal component analysis was leaded one factor structure. Evidence for reliability of the questionnaire was good, and validity appeared satisfactory. It was concluded that there is evidence to believe that respondents understand the majority of questions in ATM-Q and interpret them in the intended frame.

Keywords: Attitude, Evaluation, Development, Validation, Mathematics

Introduction

In this modern world with ever growing competition in all spheres of activity, quality of performance has become the key factor for personal growth and progress. With the increasing relevance of Mathematics in our daily life and the need of the students to improve in their performance in this subject; It has been noted that parents of children and students now desire that their wards perform very well and achieve their very best in Mathematics which eventually has added pressure on students, teachers, schools, colleges and in general the education system as a whole. As such priority attention has been given to the study of Mathematics to enhance students' academic achievements in the subject.

Certainly, quantitative measurement of attitude has evolved into fairly exact process (de Leeuw, *et al* 2019). Of many types of attitude measurement possible, one widely used technique that seem to possess most of the characteristics of a good measure is the agreement, or likert-type scale. This technique involves the use of statements about the attitudes that are either clearly favourable or unfavourable on the attitude been measured (Matthew et al., 2022). Every adventure requires the right attitude to succeed. At the inception of a school career, every student desire to come out in flying colours; however, several attitudinal factors pose challenges which in most cases truncate this dream. School attitudes are all encompassing: attitude to teachers, school environment, school curriculum, science subjects, school rules and regulations, test and examination, extra-curriculum activities, self, other students, etc. The importance of school attitude cannot be over-emphasized, by measuring students attitude, different kinds of information can be gathered which can help school management in decision making; it can also help the teachers to adjust their teaching methodologies. The result could be used to predict students' performance in core subjects such as Mathematics and other science subjects.

There exist a challenge of effectively measuring students' attitudes toward Mathematics, a subject That Plays a Pivotal Role In Education And Career Development. Existing Tools Were Found To Be Limited In scope, often focusing on single dimensions of attitude, such as cognitive, or affective, or behavioral aspects, without offering a comprehensive framework. This lack of integration made it difficult to fully understand the multifaceted nature of students' attitudes toward Mathematics.

In response to this issue, the research aimed to construct and validate a Scale of Attitude to Mathematics (behavioral dimension). The study sought to ensure the scale's reliability and validity while evaluating its ability to capture variations in attitudes among different student populations. Through this effort, the research provided a robust, multidimensional instrument to help educators, researchers, and policymakers gain deeper insights into students' attitudes toward Mathematics

Methods And Materials

Research Design: This study adopted a survey research design which involved the collection of data from a large number of participants. No attempt was made to manipulate any of the variables of the study but to describe them as they currently existed among the subjects of the study.

Population: The population of this study comprised approximately 360,000 students of the 242 public senior secondary schools in Ondo State, Nigeria as at June, during the 2016/2017 academic session.

Sample and Sampling Techniques

A sample of 2,424 students was chosen from the population through stratified random sampling. The study made used of existing three senatorial districts in Ondo State, namely: Ondo Central (Akure North, Akure South, Ifedore, Idanre, Ondo West and Ondo East Local government areas); Ondo South (Odigbo, Okitipupa, Igbekebo, Ile-Oluji, Irele and Ilaje Local Government Areas); and Ondo North (Owo, Ose/Ifon, Akoko South, Akoko South West, Akoko North and Akoko North East). Simple random sampling was subsequently used to choose four (4) senior secondary schools from each stratum, which made it 12 schools for this study. In each school, 202 students of both sexes were selected also through simple random sampling. The study also used stratified random sampling to pick two schools each from the urban and rural areas of the state, with equal sample population of 202 senior secondary school students which summed up to 808 students in each district for overall total of 2,424 drawn from the three districts.

Instrumentation: Attitudes towards Mathematics Teacher (ATMT) was developed around the following: Student-teacher rapport/relationship, Communication style, Instructional style, Teacher's emotional states and personality, Teacher's attitude towards teaching, and Teacher's attitudes towards students. After identifying the indications of the dimensions of the scale, items were subsequently formulated to describe each of the dimensions and indicators. A pool of items were initially generated. These items were formulated as a Likert-type scale with four points (1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree). A five-point scale with a neutral response option (3= Neither agree nor disagree) was not used in this study since the inclusion of a neutral response might make participants take advantage of this option to conceal their opinions.

Procedure for Data Collection: The researcher recruited and trained two research assistants for the purpose of data collection. The researcher and her assistants personally visited each of the selected schools, made her purpose known, and obtained permission of the school authority and teachers.

Administration of Questionnaire: The teachers of each school assisted in the administrating the questionnaires to students. The students were intimated with the purpose of the scale and given verbal instructions on how to respond to each of the items. Emphasis was placed on the confidentiality of information supplied. A total of 2,424 questionnaires were administered in this first phase and same number returned.

At the second phase, the same procedure was followed. The researcher waited for the participants to complete responding to items on the questionnaires. Thereafter, the completed questionnaires were collected. A total of 2,424 questionnaires were administered but 2,163 were returned and captured for data anaylsis. The researcher appreciated the participants and the school authority for their cooperation.

Data Analysis: The demographic data of participants were analyzed by means of descriptive statistics using frequency tables, percentages, mean, standard deviation, and number of cases. Descriptive statistics was used for the ATMT scale. Reliability analysis of the scale was undertaken by means of Cronbach's alpha to determine internal consistency and test-retest method to assess consistency over time. Content validity was carried out by presenting the ATMT to experts for vetting. Construct validity was determined through Principal Component Analysis (PCA) and correlation coefficients arising from convergent and discriminant validity analysis. Finally, the predictive validity of the scale was confirmed through Multiple Regression Analysis (MRA). Tests were carried out at the .05 level of significance. All statistical analyses were executed using the IBM SPSS software

Results and Discussions

Frequency Distribution showing Respondents' Personal Information

Factors	Options	Frequency	%
Gender	Male	1089	50.3
	Female	1074	49.7
Age	Below 13 years	94	4.3
	13 - 15 years	771	35.6
	16 - 18 years	1255	58.0
	19 - 21 years	39	1.8
	Above 21 years	4	.2
Class	SS 1	888	41.1
	SS 2	1102	50.9
	SS 3	173	8.0
	Total	2163	100.0
Subject Area	Art	686	31.7
	Commercial	289	13.4
	Science	1188	54.9
Parent's Educational Attainment	No Formal Education	239	11.0
	Secondary School	929	42.9
	NCE/ OND	251	11.6
	First Degree/ HND	393	18.2
	Higher Degrees	351	16.2
Socio-Economic Status	Low	295	13.6
	Middle	1291	59.7
	High	577	26.7
Religious Belief	Christianity	1723	79.7
	Islam	371	17.2
	Traditional	52	2.4
	Others	17	.8

The findings showed that 50.3% of the sampled respondents were males, while 49.7% were females. Their age groupings revealed that 4.3% were below 13 years of age, 35.6% were within the age ranges of 13 and 15 years, 58% were within the age ranges of 16 and 18 years, 1.8% were aged within the range of 19 and 21 years, while just 0.2% were above 21 years of age. Information on the classes of the sampled students were also gotten and it was noted that 41.1% were senior secondary school (SSS) 1

students, 50.9% were SSS2 students, while 8% were SSS3 students. On the subject specification of the respondents, it was observed that 31.7% of the respondents were in arts class, 13.4% were in commercial class, while 54.9% were in Science class. This means that the sampled respondents were not restricted to just science related or art related students, but rather, the research outcome could be generalized across senior secondary school students.

Further observations revealed the respondents' parent's education and it was indicated that 11% of the respondents' parents had no formal education, 42.9% had secondary school education, 11.6% attained either NCE or OND, 18.2% had either First degree or HND, while 16.2% of the respondents had parents who had higher degrees. The social-economic status of the respondents was such that 13.6% had low socio-economic status, 59.7% had moderate level, while 26.7% had high level of socio-economic status. Lastly noted was the religious belief of the respondents and it was noted that majority of them (79.7%) were Christians, 17.2% were Muslims, 2.4% were affiliated to the traditional belief system, while 0.8% were affiliated to religious outside the identified ones.

Table 2: Principal Components Analysis on the proposed variables of Attitude towards Mathematics Teacher

Factors	ATMT	**1**	**2**	**3**	**4**	**5**	**6**	**7**
The mathematics teacher shows interest in the progress of his/her students	11	.621	-.178	.146	-.041	.063	-.051	-.004
I am very proud of mathematics teachers	30	.607	-.183	-.185	.132	.039	-.064	-.147
Mathematics teachers are good at explaining mathematics concept	28	.598	-.227	-.272	.018	-.041	-.025	-.196
I am impressed by the teaching methods used by mathematics teachers	9	.578	-.203	.141	-.052	-.017	.212	.133
Mathematics teachers are my favourite teachers in school	6	.551	-.087	.289	-.072	.047	-.096	.076
Mathematics teachers take time to prompt the students	29	.544	-.231	-.250	.144	.122	.022	-.205
I like the way mathematics teachers communicate	3	.542	-.145	.223	-.039	.036	-.079	.189
Mathematics teachers are emotionally stable	12	.541	-.167	.202	-.011	.139	-.143	.000
Mathematics teachers are my favourite teachers in school	5	.526	-.105	.090	-.128	-.085	.028	.243
I believe that liking the mathematics teachers will make students have interest and reward in the subject	27	.521	-.261	-.354	-.106	-.196	.133	-.152
Mathematics teachers are very patient with slow learners	10	.512	-.137	.351	-.008	.094	-.012	-.100
Mathematics teachers makes the subject easy to study	21	.496	-.200	-.024	.249	-.166	-.181	.287
It is believed that most mathematics teachers are very competent in teaching the subject	7	.489	-.177	.173	-.286	-.055	.068	.107
Mathematics teachers do not easily lose his temper when dealing with students	13	.446	-.240	.081	.043	-.115	.317	-.231
Mathematics teachers are pleasant to relate with	19	.431	-.216	-.084	.171	-.200	.053	.090
I always approach mathematics teachers with mathematics problems I cannot solve	2	.401	-.171	.282	-.193	-.150	.143	.083
My presence is highly desired by mathematics teachers	35	.378	-.233	-.043	.175	.353	.158	.196
The mathematics teachers like to isolate me so	31	.368	-.283	-.186	.245	.312	-.151	-.227

that I can think clearly								
If it is possible, I won't have anything to do with mathematics teacher	18	.428	.523	-.061	-.047	.028	-.231	.024
Mathematics is as difficult as those who teach it	20	.274	.513	.057	-.104	.000	.027	.020
Mathematics teachers make me hate the subject	17	.427	.500	-.149	-.074	.000	-.176	.100
I experience a little sadness sometimes about mathematics teachers	34	.236	.477	.169	.119	-.284	-.141	-.277
Mathematics teachers make examination too tough	22	.239	.473	.104	.031	.106	.121	-.385
Mathematics teachers do not care about students	14	.412	.470	-.264	-.059	.083	-.149	.201
Most mathematics teachers are failure as classroom teachers	24	.301	.468	.056	-.101	.187	.335	-.020
Mathematics teachers take teaching unserious	16	.327	.457	-.275	-.187	.059	.158	.200
I don't answer questions in class for fear that the mathematics teacher may shout me down	33	.266	.453	.130	.112	-.441	-.074	-.226
Mathematics teachers do not show interest in the students	23	.395	.435	-.142	-.022	.188	.152	-.204
Sometimes, I experience a feeling of worthlessness about mathematics teachers	32	.205	.429	.076	-.081	-.412	-.049	.028
Mathematics teachers show off their knowledge too much	25	-.042	.395	.289	-.107	.335	.153	-.127
Lack of patience by mathematics teachers discourage students	26	-.080	.385	.434	.251	.278	-.245	.023
Most mathematics teachers do not communicate effectively	4	-.040	.295	.028	.590	-.083	.279	.245
Most mathematics teachers do not care whether the students understand the topic or not	8	.095	.384	-.025	.462	-.056	.415	.167
Mathematics teachers are reluctant to come to class	15	-.029	.396	-.274	-.416	.098	.104	.152
I dislike mathematics teachers	1	.294	.314	-.188	.214	.101	-.379	.119
Percentage of Variance		17.275	11.331	4.132	3.820	3.384	3.183	3.023
Cumulative Percentage of Variance		17.275	28.606	32.738	36.558	39.941	43.124	46.147

Table 1 showed the factor loading and it was noted based on factors loading above 0.40 that 16 factors loaded in the first component (items 11, 30, 28, 9, 6, 29, 3, 12, 5, 27, 10, 21, 7, 13, 19, 2). Factors 35 and 31 loaded best in the first component, but their values were below 0.40 and they were dropped. Factor 18 loaded above 0.40 in the first component (.428), but it was also found to load well and even better in the second component (.523). This was an indication of complex structure such that the factor reflected relevance with two different constructs, therefore, it was dropped. In the second component, 10 factors loaded above 0.40 (items 20, 17, 34, 22, 14, 24, 16, 33, 23, 32), while one factor loaded best in the second component, but it loaded below 0.40 (item 25). One factor also loaded adequately in the third component (item 26), while 3 other factors (items 4, 8, 15) loaded adequately in the fourth component with one having a negative association (item 15). The last factor (item 1) loaded best, but negatively on the sixth component and this factor was also dropped.

The factors loading above 0.40 in components 2, 3 and 4 were re-examined. These factors did not reveal any possible coherent construct. In addition, the theoretical buildup of the construct of students' attitude towards Mathematics did not indicate any further categorisations (sub-scales), therefore, just items loading above 0.40 in the first component (16 items) was retained for further analysis.

Factor analysis was carried out on the items measuring attitude towards Mathematics. Exploratory factor analysis was preferred because it is a statistical technique that is used to explore the underlying theoretical structure of the phenomena. Principal component factor analysis (PCA) was utilized. This

method allows one to drive the minimum number of factors and explain the maximum portion of variance in original variable.

Sample adequacy is essential in the conduct of factor analysis and in order to avoid shortcomings or limitations to the outcome of the collected and analysed data, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1974) and Bartlett's test of sphericity (Bartlett, 1954) were used to assess the factorability of the data. This explains weather the sample is large enough or adequate to conduct factor analysis. The result of the tests is presented in Table 3.

Table 3: Summary of KMO and Bartlett's Test on the Factorability of the 34-Item proposed measure for Attitude towards Mathematics

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	17647.818
	Df	561
	Sig.	.000

Table 3 indicated that the KMO measure of sampling adequacy was .911 which was above .05 recommended by Field (2000) and it is within the recommended range of 0 to 1 (Pallant, 2005). The Bartlett's test of sphericity had X^2 value of 17647.818, df of 561 and a p value that was less than 0.05 level of significant. This implied that it was significant (X^2=17647.818, df= 561, P < .05). The results therefore support the factorability of the correlation matrix, thus the principal components analysis (PCA) was conducted.

An Eigenvalue criterion of 1 was used for number of factors to be extracted in the PCA. The test of the principal component extraction method on the 34-item proposed measure of attitude towards Mathematics indicated 6 components with eigenvalues above 1 (see appendix 2). To buttress the result based on eigenvalue, screen plot was conducted. The findings are presented in Figure 1.

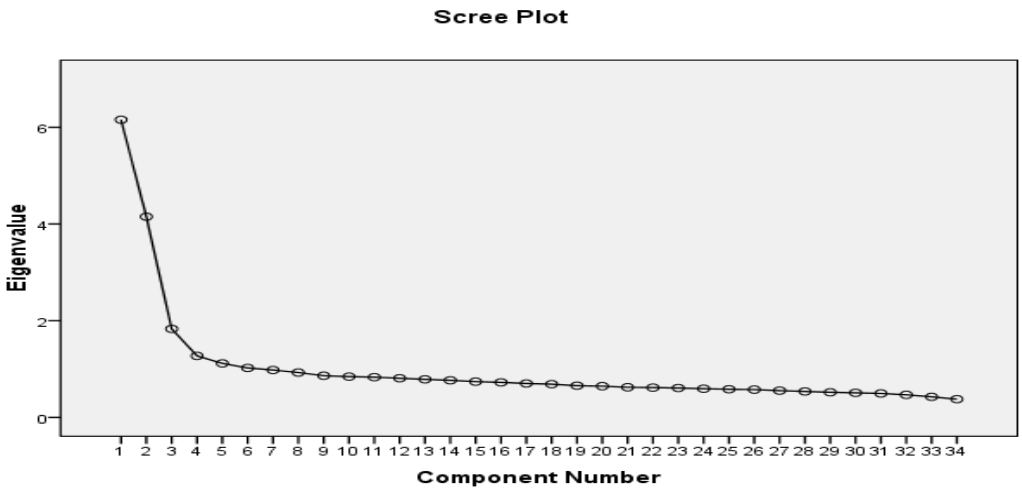

Figure 1: Screen Plot showing Eigen value on the Proposed Measure of Attitude towards Mathematics

The line graph in Figure 1 revealed a decline in the slop and an elbow curve after the fourth component. This proves that there is tendency for irrelevance with the other 2 component making up 6 components observed in the PCA, however, the 6 components was still subjected to the criteria for practical and statistical significance of factor loadings. Factor loading will be considered at the level of .40 for variables that will be select for further analysis.

Table 4: Summary of Principal Components Analysis showing the 6 components on the proposed variables of Attitude towards Mathematics

Factors	N	1	2	3	4	5	6
I feel happy and excited when learning mathematics	ATM2	.688	-.080	.193	-.223	.128	-.038
I have a passion for mathematics	ATM3	.662	-.090	.187	-.262	.109	.044
Mathematics is my best subject	ATM1	.615	-.054	.200	-.301	.032	-.048
Mathematics is a course I always enjoy studying	ATM18	.588	-.096	.221	.095	-.142	-.049
Solving problems in mathematics gives me joy	ATM22	.585	-.100	.255	.016	-.259	.011
Mathematics makes me feel secured and confident	ATM21	.550	-.148	.190	.118	-.252	-.030
I am always excited when it is time to study mathematics	ATM24	.545	-.102	.235	.082	-.257	-.089
I am confident of my ability to learn mathematics	ATM15	.531	-.150	.019	.184	.141	-.090
I teach myself and practice mathematics on my own	ATM16	.520	-.206	.028	.129	.039	.099
I see mathematics as important to my future career	ATM4	.517	-.156	.142	-.351	.250	.164
Even though an assignment in mathematics is dull and boring, I stick to it until it is completed	ATM31	.486	-.217	-.329	.250	.035	.104
I feel at ease with mathematics than some other subjects	ATM19	.485	-.199	.269	.059	-.196	-.058
Mathematics makes one think creatively and critically	ATM32	.472	-.202	-.391	.178	-.025	.325
There is always evidence of satisfaction on one's ability to solve mathematics	ATM28	.471	-.212	-.393	-.062	-.057	-.020
I derive pleasure and satisfaction in solving mathematics problems	ATM10	.465	-.194	.173	.336	.130	.202
I often forget food when solving mathematics	ATM26	.465	-.175	-.174	-.124	-.199	-.211
Mathematics is valuable for everybody	ATM5	.439	-.173	.016	-.302	.424	.232
I am always amused by most answers to mathematics questions	ATM29	.385	-.244	-.329	.085	.042	-.046
I see mathematics as too hard to understand	ATM7	.359	.572	-.117	.161	-.082	-.182
I am afraid of mathematics	ATM9	.341	.570	-.158	.018	-.006	-.063
I get scared of mathematical diagrams and shapes	ATM12	.305	.562	-.142	-.081	-.068	.076
I don't feel any motivation to learn mathematics	ATM8	.319	.542	-.166	-.010	.057	-.300
Mathematics makes me feel uncomfortable	ATM20	.237	.533	-.103	.107	.137	.112

and restless							
I get discourage whenever it is time to do mathematics	ATM6	.353	.531	-.105	.126	-.081	-.202
My mind often go blank when faced with mathematics problems	ATM23	.145	.519	-.082	.205	.259	.194
Mathematics is not for me. I cannot understand the subject	ATM11	.409	.491	-.216	-.137	.091	-.047
Attitude of my mathematics teacher makes me dislike mathematics	ATM17	.232	.486	-.121	.023	.032	.137
I hate mathematics	ATM30	.336	.484	.148	-.007	.102	-.169
I become worried over little mathematics problems	ATM27	-.015	.465	.460	.209	.000	.176
I get anxious whenever it is time for mathematics	ATM13	-.065	.404	-.123	-.401	-.350	.244
The time I spent in answering questions in mathematics is usually less than that of other subjects	ATM33	.254	-.294	-.179	.212	-.288	.225
Thinking of mathematics can give someone sleepless night	ATM25	-.104	.367	.436	.297	.093	.271
Day dreaming and procrastination distract ones attention in mathematics	ATM34	-.117	.305	.433	-.073	-.074	-.101
Expectations of my teacher and parents force me to struggle to master mathematics	ATM14	.052	-.400	.045	.256	.399	-.448
Percentage of Variance		17.275	11.331	4.132	3.820	3.384	3.183
Cumulative Percentage of Variance		17.275	28.606	32.738	36.558	39.941	43.124

Table 4 showed the factor loading on the measure of attitude towards Mathematics and it was noted based on factors loading above 0.40 that 17 factors loaded in the first component (items 2, 3, 1, 18, 22, 21, 24, 15, 16, 4, 31, 19, 32, 28, 10, 26, 5). Factor 29 loaded best in the first component, but the value was below 0.40 and it was dropped. In the second component, 12 factors loaded above 0.40 (items 7, 9, 12, 8, 20, 6, 23, 11, 17, 30, 27, 13). One factor loaded best in the second component, but it loaded below 0.40 (item 33) and it was dropped. Two factors loaded adequately in the third component (items 25, 34), while the least was a complex structure loading negatively in component 2 and component 6. This factor was also dropped.

The factors loading above 0.40 in components 2, 3 and 4 were re-examined. These factors did not reveal any possible coherent construct. In addition, the theoretical buildup of the construct of students' attitude towards Mathematics did not indicate any further categorizations (sub-scales), therefore, just items loading above 0.40 in the first component (17 items) was retained for further analysis.

For outstanding performance in Mathematics subject among the students of Nigerian secondary schools to be achieved, a potent scale for measuring students' attitudes must be developed; which is the essence of this research work. Attitude is critical to learning; a negative or positive attitude form towards an attitudinal object will either inhibit or stimulate one interest in such attitudinal object. Mathematics, no doubt, has become a-one subject with significant relevance to all life situations. Its strength and power applies to all other fields of studies - engineering, sciences, social sciences and its understanding defines individuals and societal exploits of nature (Patena & Dinglasan, 2013; Phonapichat et al., 2014; Schofield, 1982). This infers that the scientific and technological advancements of a nation can be measured by the Mathematical ability of her citizenry (Lipnevich et al., 2011).

To this end, Mathematics skill development has been accorded a prime attention by government of different nations including Nigeria. Nigerian government, in a bid to achieve her national Mathematical objectives, had included the studying of Mathematics in the national curriculum of education and made it

compulsory for students in both primary and secondary schools (Federal Republic of Nigeria, 2004). In addition, Mathematics has been made a prerequisite for the studying of science and commercial courses in Nigerian higher institutions (JAMB Brochure, 1992 – 2018).

As important as Mathematics is, however, students' performance in the subject has continued to deteriorate. Several factors have been adduced to have been responsible for this poor performance. Kupari and Nissinen (2013); Tshabalala and Ncube (2016) posited that poor performance in Mathematics is a function of cross-factors related to students, teachers and schools. Attitude has been identified as one of the students' factors. Attitude is regarded by many researchers as a key contributor to higher or lower performance in Mathematics (Mohamed & Waheed, 2011; Ngussa & Mbuti, 2017). A positively cultivated attitude has high propensity to change with time and in contrast, a negatively cultivated attitude about an attitudinal object may be difficult to change. Therefore, attitude is a fundamental factor that cannot be ignored. The effect of attitude on students' performance in Mathematics might be positive or negative depending on the individual student. It is pertinent, therefore, to design, validate and test the reliability of a versatile instrument appropriate to provide a full measure of students' attitude towards the three key attitudinal objects that directly impact on students' performance in Mathematics.

The instrument was subjected to different statistical analyses which include factor analysis – Principal Component Analysis (PCA), screen plot, Kaiser-Meyer-Olkin (KMO) measure of sample adequacy, Bartlett's test of sphericity, and reliability tests were conducted to verify the reliability of the new scales after extraction. The findings in this research satisfied all the statistical benchmarks for scale development and the results are not at variance with the results of the previous findings on this subject.

Conclusion and Recommendation

In conclusion, there is evidence to believe that respondents understand the majority of questions in ATMT-Q and interpret them in the intended frame. The bother-scores assessing impact of ATMT proved to have significant convergent and discriminatory validity, and the ATMT-Q was reliable over time. The positive disposition to Mathematics subject by the students as revealed from the findings of this research substantiated the fact that the students knew the usefulness of Mathematics as it affects their career choices and its everyday application to life

Based on the findings, this study provides key recommendation that the newly developed scale should be deployed, in each state of the Federation, to measure students' attitude towards the attitudinal variables which determine the students' achievement in Mathematics subject. The results obtained will enable stakeholders determine the course of action(s) to be taken to further improve student's performance in Mathematics subject.

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THE DIFFERENTIAL PREDICTIVE VALIDITY OF PRE-ENTRY EXAMINATIONS ON STUDENTS' ACADEMIC ACHIEVEMENT IN THREE UNIVERSITY TYPES IN SOUTHWEST NIGERIA

METHODS AND MATERIALS

Research Design: This study adopted an ex-post-facto-research design. The *ex-post facto* research design was used for this study because both the cause and the effect had already occurred.

Population: The universal population of this study consists of 9,000 undergraduate students admitted through UTME and post-UTME; have registered into 200 level of a stratified randomly selected sample Federal, State and Private's higher institutions in South West, Nigeria.

Sample and Sampling Techniques: A sample size of 2,075 candidates' was chosen through the multistage sampling techniques. Five (5) out of six (6) States in the South West Nigeria were selected through stratified sampling. These 5 States Lagos, Oyo, Osun, Ekiti, and Ondo. From each of the five (5) States, one university from Federal, State and Private Universities were selected. Table 1 shows the selected universities in the South West of Nigeria.

Table 1: Sampled universities

Institution Proprietorship	Sampled Universities	Frequency	Per cent
Federal Universities	Federal University Oye Ekiti	120	5.8
	Obafemi Awolowo University	220	10.6
	University of Lagos	230	11.1
	University of Ibadan	210	10.1
	Federal University of Technology Akure	102	4.9
State Universities	Lagos State University	213	10.3
	Ekiti State University	205	9.9
	Osun State University Osogbo	100	4.8
	Adekunle Ajasin University	160	7.7
	Ladoke Akintola University Ogbomoso	180	8.7
Private Universities	Redeemer University	60	2.9
	Elizade University	60	2.9
	Caleb University	75	3.6
	Afe Babalola University	60	2.9
	Ajayi Chrowder University Oyo	80	3.9
Total		2075	100.0

In each of the Federal, State and Private Universities, the following numbers of students 882,858 and 335 undergraduate students respectively were chosen through stratified random sampling to obtain the requisite data of a total of 2,075 students for the five (5) States in the study.

Instrumentation: Three instruments were used for the study. The first is the admission list consisting of the names of students admitted through UTME scores and registered into 100 levels for the two academic sessions before the introduction of PUTME; while these instrument is the list of those who were admitted through PUTME scores and registered into 100 levels for the two academic sessions and the third instrument is the Cumulative Grade Point Average CGPA of students' academic performance in first semester examination for the two academic sessions of the sampled higher institutions for this study. The student academic records are kept by the respective examination officers of each institution involved in the study.

Method of Data Collection: The researcher recruited and trained a research assistant to gather data for this study. The researcher with his assistant personally visited all the institutions chosen in the sample. At each of the institutions, they obtained permission from relevant authorities to administer the questionnaires to participants. Thereafter, the was administered to the students in their lecture hall after explaining the purpose of the study to them and assured them that the information given was treated strictly confidential and used only for research purposes. The researcher and his assistant waited to collect the completed questionnaires. The researcher sought permission to visit the sampled institutions and collect all students' past results (data) from the Exams and Records Office of the institutions in the study through the examination officers. The designated officers of the University did make available all the relevant data via softcopy after authorities had approved the request with a serious warning to treat with utmost confidentiality it deserved and strictly used for this research. From the academic status,

information about students' past Commutative Grade Point Average (CGPA) was accessed and collected to answer both research questions and to test the researcher's null hypotheses for data analysis.

Method of Data Analysis: The hypotheses were tested using multiple regression analysis at the 5% level of significance

There is no significant combined contribution of UTME and PUTME on undergraduates' academic achievement in the Nigerian Universities in South West, Nigeria

Table 2: Summary of Regression Model on combined contribution of UTME and PUTME on undergraduates' academic achievement

Proprietorship	Model	Sum of Squares	df	Mean Square	F	Sig.
Federal University	Regression	64.846	2	32.423	83.389	.000[b]
	Residual	341.773	879	.389		
	Total	406.619	881			
	Model Summary: R= .399; R^2 = .159; $R^2_{(adj)}$ = .158; $F_{(2,879)}$ = 83.389; p <.001					
State University	Regression	13.106	2	6.553	15.362	.000[b]
	Residual	364.719	855	.427		
	Total	377.826	857			
	Model Summary: R= .186; R^2 = .035; $R^2_{(adj)}$ = .032; $F_{(2,855)}$ = 15.362; p <.001					
Private University	Regression	10.208	2	5.104	11.220	.000[b]
	Residual	151.036	332	.455		
	Total	161.244	334			
	Model Summary: R = .252; R^2=.063; $R^2_{(adj)}$ = .058; $F_{(2,332)}$ = 11.220; p <.001					

a. Dependent Variable: CGPA

b. Predictors:(Constant), PUTME, UTME

Results in Table 4.5revealed that there was a combined contribution of UTME and PUTME scores on undergraduates' academic achievement among the three different University ownership. Unified Tertiary Matriculation Examination (UTME) and Post-Unified Tertiary Matriculation Examination (PUTME) scores significantly predicted the Cumulative Grade Point Average (CGPA) for Federal University students (R^2 adj = .158; $F_{(2,879)}$ = 83.389; p < .001), for State University students (R^2 adj = .032; $F_{(2,855)}$= 15.362; p < .001),and for Private University students (R^2adj = .058; $F_{(2,332)}$ =11.220; p <.001).

Results of this study indicated that UTME and PUTME scores combined to significantly predict undergraduates' academic achievement among the three categories of university ownership. However, the percentage prediction was highest in the case of Federal Universities students, then Private Universities students and State Universities students in that order, accounting for 15.8%, 5.8%, and 3.2% respectively for the variance in students' academic performance.

There is no significant relative contribution of UTME and PUTME on undergraduates' academic achievement in the midst of Federal, State and Private Universities in South West, Nigeria

Table 3: Coefficients results on the relative contribution of UTME and PUTME on undergraduates' academic achievement

Institution Proprietorship		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
Federal	(Constant)	.063	.254		.248	.804		
	UTME	.011	.001	.376	12.149	.000	.996	1.004
	Post UTME	.009	.003	.111	3.588	.000	.996	1.004
State	(Constant)	1.157	.336		3.445	.001		
	UTME	.007	.001	.153	4.501	.000	.976	1.025
	Post UTME	.007	.003	.085	2.493	.013	.976	1.025
Private	(Constant)	1.079	.453		2.382	.018		
	UTME	.008	.002	.215	4.022	.000	.991	1.009
	Post UTME	.005	.002	.112	2.105	.036	.991	1.009

a. Dependent Variable: CGPA

Results in Table 4.6 indicated that both UTME and PUTME scores contributed significantly and relatively to the prediction of undergraduates' academic performance among the three-university ownership. In each of the Universities, the UTME scores are the most potent in contributing to academic achievement followed by the PUTME scores as observed in Federal Universities UTME (β = .376; *t* =12.149; *p* < .05) and PUTME (β = .111; *t* = 3.588; *p* < .05). For State Universities UTME (β = .153; t = 4.501; p<.05) while PUTME (β = .153; *t* = 4.501; *p* <. 05), Private Universities UTME (β = .085; *t* = 2.493; *p* < .05) with PUTME (β = .112; *t* =2.105; *p* <.05). The findings of this study showed that UTME and PUTME scores relatively contributed to the CGPA of undergraduates irrespective of University ownership category. In each of the cases, the UTME scores are the more potent in the prediction of students' academic achievement before the contribution of Post-UTME, although both are significant in predicting undergraduates' academic achievement.

Discussion of Findings

The results are not astonishing as they support previous findings of some previous studies (Aina, 2017; Ifedili & Ifedili, 2010; Ubi, 2015). Ifedili and Ifedili (2010) who did a study at the University of Benin, to determine the effectiveness of UTME and PUTME. The study suggested the supremacy of PUME over UTME in selecting the best candidates for university education. Other contradictions according to Nwanze also reported by Ifedili and Ifedili (2010), reveals that in the same university the best five UTME students did not score up to40% in PUTME. Also, only two candidates passed PUTME out of the twenty-six candidates in JAMB merit list. In law, the best 16 candidates failed the PUTME. In Pharmacy, the best fifteen students in PUTME were not on JAMB merit list, all in a particular admission session of the university.

Aina (2017) had investigated the extent UTME and PUTME scores predicted the academic performance of university undergraduates in a population of 1650 students admitted into the university during the 2011/2012 academic session from Faculties of Arts, Education, Science and Social and Management Science was used to obtain their UTME and PUTME scores along with their CGPA for eight semesters. Their findings revealed that the use of PUTME is beneficial for selection of candidates for admission and also that candidates who had a high-performance level in the UTME have a positive effect on the academic achievement in the university therefore recommended that PUTME exercise/process in the university needed to be strengthened to effectively select candidate for admission.

Ubi (2015) also found from a similar study that that there is a significant relationship between students' entry background scores as measured by UTME and PUTME and their achievement in school-based assessments as measured by CGPA for Years One, Two, and Three. The study recommends that the UTME and PUTME should continue to be used as pre-requisite for admissions.

The findings of Kennedy and Ebuwa (2020) could not be supported by the findings of the present study. They have from a study that revealed that JAMB/UTME, Post-UTME scores do not significantly predict undergraduate final grades in Nigeria University either separately or combined.

Together, UTME and PUTME scores should predict students' academic achievement. It is however amazing to observe low predictive capacity of the scores of the two screening examinations on students' academic achievement. In cases like this, the quality of all the examinations need to be investigated to determine which requires an overhauling. This would be expected judging by the low correlation between UTME and PUTME as observed by Aromasodun (2022) and Kolawole et al. (2011).

These findings are not startling as some previous studies reported similar results (e.g. Ifedili & Ifedili, 2010; Ogunniran et al., 2019; Ubi, 2015). Ifedili and Ifedili (2010) had investigated the effectiveness of UTME and PUTME on students' academic achievement in a Federal University. The study suggested the supremacy of PUME over UTME in selecting the best candidates for university education. Ogunniran et al. , (2019) had observed that the presence of PUTME screening exercise for students after passing UTME still remains the best. Ubi (2015)

had found in a study that UTME and PUTME are good predictors of students' academic performance.

Conclusion

The study concludes that undergraduate academic success at federal, state, and private universities in South-West Nigeria is influenced by both UTME and PUTME scores, with UTME scores generally showing a stronger correlation with CGPA. These findings highlight the distinct predictive contributions of PUTME assessments and the critical role of standardized entry examinations like UTME in higher education. The observed variations in scores and CGPA across university types indicate the need for specialized academic assistance programs and tailored admissions methods to optimize student achievement within each university ownership group.

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A MULTILEVEL ANALYSIS OF FACTORS INFLUENCING TEACHERS' PROFESSIONAL DEVELOPMENT PARTICIPATION IN PUBLIC SECONDARY SCHOOLS IN DISTRICT 2 OF IKORODU LOCAL GOVERNMENT AREA OF LAGOS STATE, NIGERIA

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Abstract

This study investigates the factors influencing teachers' participation in professional development programmes within public secondary schools in District 2 of Ikorodu Local Government Area, Lagos State, Nigeria. Recognizing the critical role of professional development in enhancing teacher effectiveness and improving student outcomes, the study addresses the persistent issue of limited teacher engagement in such programmes.

A cross-sectional survey design was employed, using a multistage sampling technique to select 288 participants from fifteen public secondary schools. Data was collected through a structured questionnaire and analyzed using SPSS version 21.

Findings revealed that teacher participation in professional development was moderate (mean = 2.68). Key personal factors influencing participation included career advancement goals, a sense of school belonging, and dedication to improving student learning outcomes. At the school level, factors such as leadership support, peer collaboration, resource availability, and relevant government policies significantly affected participation. Statistical analysis showed a significant combined influence of personal and school-level factors on teacher participation ($f = 77.959$, $p < 0.05$).

The study concludes that targeted interventions addressing both individual and School barriers are crucial for improving participation rates. It recommends enhanced school leadership practices and equitable resource distribution to create supportive environments for continuous teacher development. These insights are vital for policymakers, school administrators, and stakeholders aiming to boost educational quality through sustained teacher professional growth.

Keywords; Teachers, Professional Development, Participation, Public Secondary Schools, Ikorodu (District 2)

Introduction

In the global education landscape, the role of the teacher is increasingly viewed as central to student learning and achievement. As educational systems evolve to respond to 21st-century challenges, the demand for teacher competence, innovation, and adaptability has intensified (Darling-Hammond et al., 2017). Professional development serves as a mechanism for continuous learning and instructional renewal. In Nigeria, however, despite policy efforts to promote PD, teachers in public secondary schools continue to exhibit low participation rates, hindered by systemic inefficiencies, economic limitations, and poor administrative support (Adeyemi & Ogunleye, 2020).This study addresses a critical gap by exploring both individual and school-level factors that either promote or hinder PD engagement. By focusing on Ikorodu District 2 a densely populated, urban educational district with diverse socioeconomic characteristics the study provides context-specific insights into how Nigerian public school teachers navigate professional learning.

Theoretical Framework

This study adopts a dual-theoretical framework combining Organizational Development Theory (ODT) and Expectancy-Value Theory (EVT). ODT emphasizes the role of organizational systems structures, leadership, communication, and resource allocation in shaping professional behavior (Cummings & Worley, 2014). It posits that organizations that support learning, collaboration, and autonomy are more likely to experience positive developmental outcomes.

In complement, EVT (Wigfield & Eccles, 2000) theorizes that individuals are more likely to engage in an activity when they perceive it as valuable and believe they can succeed in it. Applied to teacher PD, this suggests that educators' motivation is influenced not only by intrinsic interest but also by institutional reinforcement and expected utility, such as career advancement or enhanced teaching efficacy. Together, these frameworks offer a multilevel lens to understand PD participation, blending psychological agency with organizational dynamics.

Review of Related Literature

Personal Factors Influencing PD Participation

Teachers' individual attributes such as professional experience, academic qualification, motivation, age, and career aspirations significantly impact their likelihood of engaging in PD (Desimone, 2009; Guskey, 2002). Experienced teachers often seek leadership-oriented PD, while newer educators prioritize foundational instructional strategies (Kraft et al., 2021). Teachers with postgraduate qualifications also show higher participation rates, partly due to exposure to advanced training models (Oke, 2023).Motivation, whether intrinsic (e.g., a desire to improve student outcomes) or extrinsic (e.g., promotion)is a strong driver of PD engagement (Ryan & Deci, 2000). Highly committed teachers tend to participate in PD more actively, particularly when they perceive direct benefits to their classroom practice (Johnson & Adeola, 2024).

School-Level Determinants

Institutional structures play a pivotal role in either facilitating or inhibiting professional learning. Supportive school leadership, collegial collaboration, availability of learning resources, and alignment with governmental policy are all critical determinants (Leithwood et al., 2020). Schools that foster professional learning communities and allocate time for reflective practice report higher PD engagement (Vescio et al., 2008).

Conversely, underfunded institutions with rigid hierarchies and limited learning infrastructure tend to demotivate staff participation in PD (UNESCO, 2020). Leadership style is particularly important; transformational leaders who empower teachers and foster a growth-oriented culture often have more actively developing staff (Day & Sammons, 2016).

Methodology

Research Design:

This presents the result of the data analysis and the interpretations of the results were provided according to the research questions and hypotheses developed for this study. A quantitative, cross-sectional survey design was adopted for this study.

Sampling and Sampling Technique

Using multistage sampling, 15 public secondary schools in Ikorodu District 2 were selected, with proportional representation based on school size. The final sample comprised 285 teachers, yielding a 99% response rate.

Instrumentation

A structured questionnaire, validated through expert review and a pilot study, measured teachers' participation levels, perceived personal and institutional influences, and demographic details. The reliability coefficients exceeded 0.80 on all scales.

Data Analysis

Data were analyzed using SPSS v21. Descriptive statistics were employed to determine general trends, while ANOVA and regression analysis assessed the predictive strength of personal and school-level factors on PD participation.

Table 1 Socio-demographic characteristics of the respondents

Demographic Characteristics	Frequency (n=285)	Percentage (%)
Age		
20-29 years	60	21.1
30-39 years	75	26.3
40-49 years	96	33.7

50 and above	54	18.9
Gender		
Male	118	41.4
Female	167	58.6
Years of Teaching Experience		
0-5	72	25.3
6-10	103	36.1
11-15	75	26.3
16 and above	35	12.3
Class of Teaching Assignment		
JSS	109	38.2
SSS	176	61.8
Highest Educational Level		
NCE	56	19.6
Bachelors Degree	90	31.6
Masters Degree	76	26.7
Doctorate Degree	32	11.2
Others	31	10.9

The study surveyed 285 teachers, all of whom fully completed the questionnaire. The gender distribution revealed a female majority (58.6%) compared to males (41.4%). Most respondents were aged 40–49 years (33.7%), followed by those aged 30–39 (26.3%), 20–29 (21.1%), and 50+ (18.9%). In terms of teaching experience, the largest group had 6–10 years (36.1%), followed by 11–15 years (26.3%), 0–5 years (25.3%), and only 12.3% had 16+ years, indicating a smaller pool of highly experienced teachers. A majority of teachers (61.8%) work in Senior Secondary Schools (SSS), while 38.2% are in Junior Secondary Schools (JSS). Regarding qualifications, the most common was a Bachelor's Degree (31.6%), followed by Master's (26.7%), NCE (19.6%), Doctorate (11.2%), and Others (10.9%)—the latter likely comprising diplomas and professional certifications.

Results

Analysis According to Research Questions

The researcher used both descriptive and inferential statistical methods to analyze data and answer research questions regarding factors influencing teachers' participation in professional development programmes in public secondary schools. Specifically, the study focused on District 2 of Ikorodu LGA, Lagos State, Nigeria.

To address the first research objective assessing the level of professional development programmes the researcher collected data using a structured questionnaire. Key indicators examined included participation rate, learning application, institutional support, and perceived value of the programmes. Responses were categorized into five thematic areas: motivation/interest, learning application, career impact, administrative support, and actual

participation. These were quantified using a 4-point scale to reflect overall perceptions.These scores were then categorized into three engagement levels, as shown in Table 4.2 below:

Table 2: Participant's engagement score rank levels

Scores	Level Rank
<= 2	Low level
2.01 – 3.00	Moderate level
3.01 – 4.00	High level

Figure 4.1: Level of engagement in professional development programmes.

Hence, for any given theme, a mean score of 2.00 or below indicates low engagement, scores between 2.01 and 3.00 reflect moderate engagement, while scores of 3.01 and above represent a high level of engagement in the programme.

To assess teachers' engagement in professional development programmes, responses were analyzed across five key themes: Perceived Career Impact, Institutional Support, Actual Participation, Motivation/Interest, and Application of Learning. The average scores on a 4-point scale ranged from 2.66 to 2.72, with an overall mean of 2.69 and a standard deviation of 1.06, indicating a moderate level of engagement. Perceived Career Impact scored the highest (2.72), showing that teachers value the career advancement opportunities these programmes offer. Institutional Support followed closely at 2.71, indicating that schools provide moderate support, though there's room for improvement. Actual Participation scored 2.68, reflecting consistent but moderate involvement in the programmes. Motivation/Interest and Application of Learning both had scores of 2.66, suggesting a moderate intrinsic interest in development and a possible gap in translating training into classroom practice. The findings reveal a moderate but uniform engagement level across all themes, pointing to general institutional encouragement but also emphasizing the need to enhance motivation and practical application of learning.

Research Question Two

To explore the personal factors influencing teachers' participation in professional development programmes, the study focused on two key themes: motivation for participation and commitment to the teaching profession. Participants' responses were measured using a 4-point Likert scale, and aggregated to assess how these individual-level factors impact their engagement. This approach enabled the researcher to quantify the influence of internal drivers such as personal interest and professional dedication on teachers' willingness to engage in continuous learning initiatives. These scores were then categorized into three levels of influence to determine the extent to which personal factors affect participation, as shown in Table 4.3 below:

Table 3: Participants' Influence Score Ranking

Scores	Level Rank
<= 2	Low influence
2.01 – 3.00	Moderate influence
3.01 – 4.00	High influence

Figure 2: Personal factors that influences teachers' participation

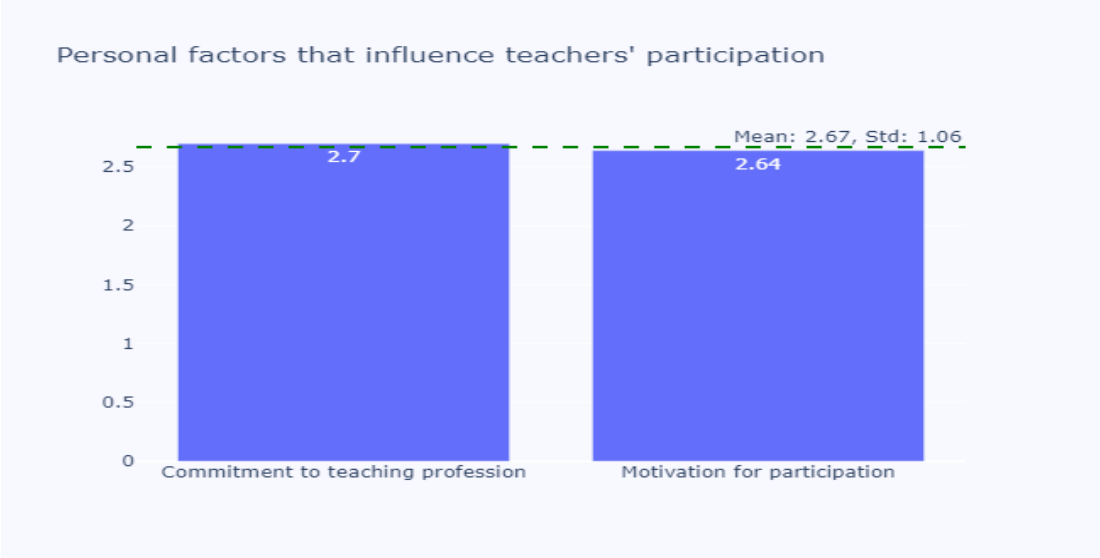

Figure 2 shows that personal factors namely, commitment to the teaching profession (mean = 2.70) and motivation for participation (mean = 2.64) exert a moderate influence on teachers' engagement in professional development programmes. The overall average score was 2.67 on a 4-point scale, indicating that while teachers show some degree of motivation and commitment; these are not strong drivers of participation. Although many teachers express interest in learning and career advancement, this motivation does not consistently lead to high participation. Commitment to the profession was slightly stronger, suggesting that a teacher's sense of identity and purpose contributes to engagement, though still moderately.The findings emphasize the need to strengthen internal drivers such as intrinsic motivation, passion for teaching, and belief in self-efficacy. Interventions that reinforce professional identity and align personal values with development goals may help boost sustained and deeper engagement in professional development activities.

Restatement of Research Objective and Question Three

To examine school-level factors influencing teachers' participation in professional development, responses were assessed across four themes: Collaborative Networks, Government Policies, Resource Allocation, and Leadership Support, using a 4-point Likert scale. Findings suggest that while teachers show interest in career growth, personal motivation alone does not ensure consistent participation. However, commitment to the profession though moderate shows a stronger influence. This underscores the importance of school-level enablers. The study suggests that enhancing institutional conditions, such as supportive leadership, effective policy implementation, sufficient resource provision, and opportunities for professional collaboration, is vital. Strengthening these external supports alongside internal motivators like professional identity and self-efficacy could significantly improve sustained teacher engagement in professional development activities. These scores were then categorized into three levels, as shown in Table 3 below:

Table 3 Participants' Influence Score Ranking

Scores	Level Rank
<= 2	Low influence
2.01 – 3.00	Moderate influence
3.01 – 4.00	High influence

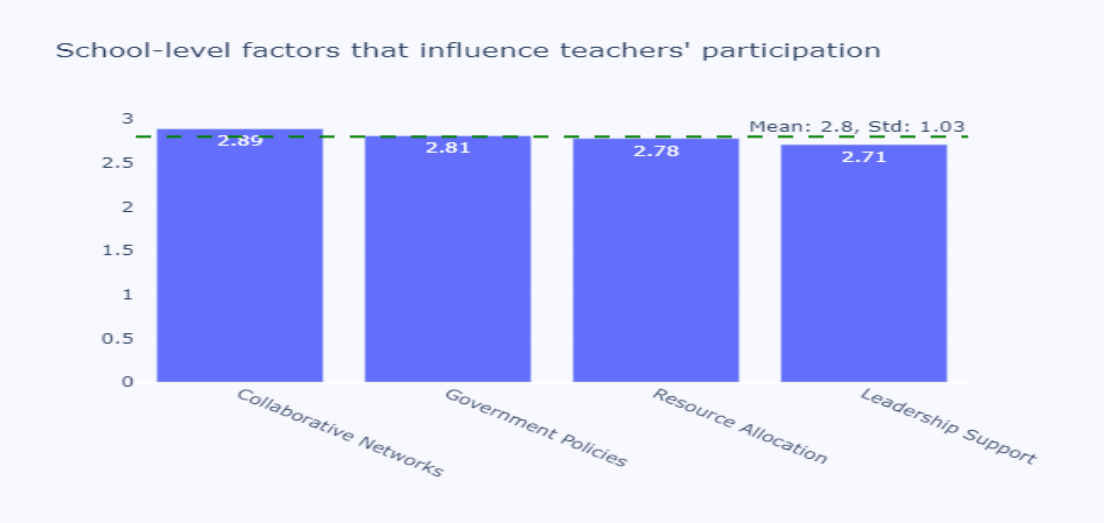

Figure 3: School-level factors that influences teachers' participation

The results in Figure 3 presents the average scores of school-level factors that influence teachers' participation in professional development programmes in public secondary schools. From the data, Collaborative Networks emerged as the most influential factor, with the highest average score of 2.89, suggesting that when teachers have opportunities to engage with peers through networks or professional learning communities, they are more likely to participate in development programmes. Such collaboration likely provides both motivation and a shared sense of purpose, reinforcing the value of continual learning within the teaching profession. Government Policies followed closely with a mean score of 2.81, indicating a significant influence. This reflects the role of formal structures and mandates in encouraging teacher participation. Clear policies that support and perhaps require professional development can act as strong enablers, especially when these policies are well-communicated and consistently implemented. Additionally, resource allocation (mean = 2.78) and leadership support (mean = 2.71) also play important roles, though they scored slightly below the overall mean value of 2.8. While the difference is modest, it suggests that limited access to financial, material, or time resources may hinder participation to some extent. Likewise, leadership support, while crucial, appears to be an area where improvements can be made. School leaders may not always provide the encouragement or structural backing needed to promote ongoing professional learning among teachers. The relatively narrow range of mean scores, combined with an overall standard deviation of 1.03, indicates that all four factors are moderately influential and interrelated. Hence, we can assume that none is negligible, however, collaborative networks and government policies stand out as slightly more impactful within the studied context. These imply that policy makers and school administrators seeking to improve teacher participation in professional development should prioritize fostering collaborative environments and ensuring that policy frameworks are supportive and enabling. Investments in resource provision and leadership training should also not be overlooked, as they form part of a holistic strategy to enhance teacher growth and, by extension, educational quality.

Test for hypothesis

In this section, we will explore the underlying relationships between critical variables such personal factor, school-level factors, and participation in professional programs. Hypothesis testing provides us a framework for evaluating whether the observed patterns and differences in the data are statistically significant, or they occur by random chance. By employing robust statistical techniques such as multilinear regression analysis, this section aims to assess and validate theoretical assumptions, as well as provide empirical evidence to support or refute the postulated hypotheses.

Testing of Research Hypotheses

To evaluate these hypotheses, multiple linear regression analysis was employed. This statistical technique enables the assessment of the individual effects of the independent variables personal factors (PF) and school-level factors (SLF) on the dependent variable teachers' participation in professional development (TPDP).

Table 4.4 Influence of personal and school factors on teachers' participation in professional development programmes

	Coef (β)	**Std err**	**t**	**P>|t|**	**[0.025**	**0.975]**
const.	0.4596	0.171	2.681	0.008	0.122	0.797
Personal factors	0.1895	0.053	3.586	0.000	0.085	0.294
School factors	0.6155	0.068	9.070	0.000	0.482	0.749

$R^2 = 0.380$ $Adj\text{-}R^2 = 0.376$ F-statistics = 86.55 Sig = 0.000

Dependent Variable: Teachers' participation

Table 4 presents the results of a multiple linear regression analysis conducted to evaluate the individual and combined influence of personal-level and school-level factors on teachers' participation in professional development programmes in public secondary schools in District 2 of Ikorodu Local Government Area.

The result reveals that the model is statistically significant overall, as indicated by the F-statistic (86.55, $p < 0.001$), showing that the combination of the predictors (personal and school factors) significantly explains the variability in teachers' participation. The result indicates that the model explains 38.0% of the variance in teachers' participation in professional development activities ($R^2 = 0.380$), suggesting a moderate level of explanatory power.

Hypothesis One (Ho1): Personal-level factors

The outcome shows that personal-level factors have a positive and statistically significant influence on teachers' participation ($\beta = 0.1895$, $t = 3.586$, $p < 0.001$). The 95% confidence interval [0.085, 0.294] does not include zero, further supports the significance of this effect. This finding implies that individual characteristics - such as motivation, or personal interest play an important role in shaping whether teachers engage in professional development. Therefore, Ho1 is rejected, confirming that personal factors do exert a meaningful influence on teachers' participation in professional development programmes.

Hypothesis Two (Ho2): School-level factors

The result further reveals that school-level factors have an even stronger and highly significant influence on participation ($\beta = 0.6155$, $t = 9.070$, $p < 0.001$). The confidence interval [0.482, 0.749] indicates a robust and substantial effect. This result suggests that institutional elements such as administrative support, collaboration opportunities, and resource allocation are powerful enablers of teacher engagement. As a result, Ho2 is also rejected.

Hypothesis Three (Ho3): Combined influence

The combined model shows that both personal and school-level factors significantly predict teacher participation, with school-level factors exerting a relatively greater influence. The significance of the overall model ($p < 0.001$) and the strength of both predictors indicate a meaningful joint impact on the dependent variable. Therefore, Ho3 is rejected, affirming that the combined influence of both sets of factors is statistically significant. Additionally, this regression analysis provides compelling evidence that both individual traits and institutional environments significantly influence teachers' engagement in professional development programmes. Most importantly, school-level factors appear to have a more substantial impact, highlighting the critical role of supportive school environments in fostering continuous professional growth. These findings have strong implications for education policy and school leadership, emphasizing the need to create enabling structures while also empowering teachers individually.

Findings

On average, teachers rated their PD participation as moderate ($M = 2.68$ on a 5-point scale). Engagement was highest in training related to teaching techniques, classroom management, and student assessment.

Career motivation, years of experience, and educational qualification emerged as significant personal predictors. Teachers pursuing postgraduate qualifications or with more than ten years' experience were more likely to engage in PD. Younger teachers, however, expressed challenges in accessing formal PD due to workload and lack of incentives.

School leadership support, policy alignment, and collaborative networks significantly influenced PD participation. Teachers in schools with proactive principals and strong collegial ties reported higher engagement. Regression analysis revealed that school-level variables accounted for more

variance ($R^2 = 0.62$) than personal-level factors ($R^2 = 0.21$), confirming their dominant predictive strength (Ajaegbu, 2025).

Discussion

The findings underscore that PD engagement is a product of both personal readiness and institutional context. While motivation and career aspirations are necessary, they are insufficient without enabling school environments. The strong predictive role of leadership and institutional support validates the OD framework's emphasis on systemic development (Cummings & Worley, 2014).

These results echo studies in similar contexts, such as Day and Sammons (2016), who found that sustained teacher growth occurs predominantly in schools with embedded PD cultures. The influence of collaboration also reinforces the value of learning communities in enhancing reflective practice and pedagogical adaptation.

Implications for Stakeholders

Leadership training should focus on developing instructional leaders who can foster a supportive and reflective school culture. Administrators must provide time, incentives, and platforms for peer learning. There is an urgent need to institutionalize PD by embedding it within educational reforms. This includes earmarked funding, nationwide standards for PD content, and teacher certification linked to continuous learning milestones. Teachers must take ownership of their professional growth by engaging in self-directed learning and forming informal networks of knowledge exchange. Encouragingly, digital PD opportunities offer new, flexible modes for engagement.

Recommendations

Establish School-Based PD Units by coordinate on-site workshops, mentoring, and peer review practices and expand Blended PD Models Incorporating both in-person and virtual learning modules to enhance accessibility.

Develop a PD Needs Assessment Framework tailoring training to career stages and school needs and provide incentives through promotions and certification renewals.

Institutionalize Monitoring Using longitudinal data to evaluate the effectiveness and relevance of PD initiatives.

Conclusion

Teachers are critical change agents in education, and their development must be prioritized through well-structured and context-sensitive professional learning systems. This study confirms that while personal attributes matter, institutional support mechanisms such as leadership, collaboration, and resources play a defining role in shaping PD engagement in Nigerian public

secondary schools. Sustainable improvement in teaching practice requires aligning teacher agency with supportive educational environments.

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JOB SATISFACTION, HUMAN RELATIONS SKILLS AND MODERN COMMUNICATION EQUIPMENTS AS DETERMINANT OF SECRETARIES JOB PERFORMANCE IN PUBLIC UNIVERSITIES IN Ogun state

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Abstract

This study assessed the extent at which job satisfaction, human relations skills and modern communications equipment influence the job performance of secretaries in public universities in Ogun State, Nigeria. The descriptive research design of survey type was adopted. Two hypotheses guided the study while a sample of 150 secretaries was determined using Cochran (1997) formula. Structured questionnaires were used to collect data from the respondents. Inferential statistic of Multiple regression was adopted to test the formulated null hypothesis at 0.05 level of significant. The findings revealed that job satisfaction, human relations skills, and the use of modern communication equipment jointly have a statistical significant effect on the job performance of secretaries ($R = 0.744$, $R^2 = 0.554$, $F = 53.314$; $p = .000 < 0.05$). The relative influence of the predictors on the criterion variable shows that job satisfaction ($\beta = 0.555$; $t = 8.812$; $p < 0.05$) is the most potent factor followed by human relations skills ($\beta = 0.463$; $t = 7.193$; $p < 0.05$) and modern communications equipment ($\beta = -0.157$; $t = -2.306$; $p < 0.05$). It was concluded that effective and efficient functioning of secretaries and office administrators requires the availability of technological tools, better job satisfaction and human relation skills. It is recommended, among others, that public tertiary institutions in Ogun State and similar organisations should make the acquisition and adoption of technological innovation a policy and culture issue to enhance the performance of their secretaries and facilitate service delivery.

Keywords: Human relations skills, job performance, job satisfaction, modern communications equipment, secretaries

Introduction

Human capital is still a valuable resource in the world today, and it is crucial to an organization's ability to achieve its objectives, survive, and expand. One important criterion for organizational outcome and success is employee performance, which also plays a significant role in deciding whether an organization's objectives are met. As a result, workforce performance supports the efficient and effective use of other resources deployed for the achievement of corporate objectives and organizational effectiveness, owners and managers of organizations and businesses are therefore searching for workers who will be able to perform their jobs well.

Comprehending the concept of work performance among secretaries is essential for organizational success in public universities, particularly in Ogun State, Nigeria. As the backbone of administrative operations, secretaries oversee a variety of responsibilities necessary for academic institutions to run smoothly (Ebhodaghe et al. 2020; Oyerinde, Aina, & Adeniran, 2023). By exploring job performance, the effectiveness and efficiency of secretaries in fulfilling their roles and responsibilities can be accessed. Secretaries' job performance is a critical component in the efficient functioning of any organization. As administrative professionals, secretaries are responsible for a wide range of tasks, including managing communication, handling documentation, scheduling meetings, and supporting managerial activities. Their role serves as the backbone of office administration, ensuring that information flows seamlessly and operations are well-coordinated. Performance in this context is often measured by the accuracy, timeliness, and completeness of the secretarial duties performed. According to Oyerinde, Aina, and Adeniran (2023), secretaries play a vital role in ensuring the effectiveness of organizational communication and record management. When their performance is optimal, it leads to increased productivity, better decision-making, and improved organizational outcomes. Conversely, poor performance in secretarial roles can result in communication breakdowns, workflow delays, and reduced overall efficiency.

However, secretaries' job performance in the 21st century automated office involve the creation of documents through laptops and smart devices with advanced typesetting skills to create, edit, format, convert texts into special documents formats. Omidiji (2024) opined that secretary job performance involves ability to voice type through emerging applications that enable users to voice and format documents using their voice rather than typing with their fingers such as speech to text application, voice type keyboard, keyboard personalized note, Audio to text and speech recognition. Onajite and Makinde opined that secretaries job performance determine the success of her assigned tasks that contribute to the attainment of organization goals and objectives. If the secretary performance her job according to institutional job specification it contribute to the achievement of organization goals. It is the way by which employees perform the job tasks in relation to the institutional job specifications. The job performance of the secretaries in tertiary institution involve the execution of various activities and crucial to the smooth running of the institution and achievement of organization goals and objectives. Secretary Job performance determine the most time the image of the institution. Secretary handles the communication and dissemination of the institution and the way they portray the organization tends to reflect on the integrity of the institution.

Secretary job performance in tertiary institution is predicted by many factors such as employees' development, job satisfaction, technological facilities, work environment, relational skills, motivation, and many more. This study is only focusing on three out of so many variables. These are job satisfaction, relational skills, and technological facilities. The first variable is job satisfaction. Job satisfaction refers to the degree to which individuals feel positively or negatively about their jobs. It is influenced by multiple factors including compensation, working conditions, recognition, and the nature of the job itself. For secretaries, job satisfaction plays a pivotal role in determining their level of motivation and productivity. When secretaries are satisfied with their roles, they tend to be more committed, organized, and effective in handling administrative tasks. According to Agubosim et al. (2023), job satisfaction significantly affects staff engagement and willingness to perform at optimal levels. The study further emphasizes that satisfied employees are more likely to contribute positively to organizational outcomes and maintain consistency in performance.In contrast, dissatisfaction can lead to absenteeism, lack of motivation, and frequent errors in task execution, which in turn compromises the overall effectiveness of secretarial functions. Kaelani et al. (2023) observed that job satisfaction acts as a mediating factor between leadership/motivation and performance. Secretaries who experience low job satisfaction often show signs of burnout and disengagement, leading to reduced output and morale.

The relationship between job satisfaction and secretaries' job performance is well established in literature. Secretaries who are content with their work environment, compensation, and career progression tend to demonstrate higher levels of engagement and output. Agubosim et al. (2023) concluded that intrinsic and extrinsic job satisfaction factors significantly influence job performance, while Kaelani et al. (2023) emphasized that satisfaction serves as a critical link between motivation and output. A satisfied secretary is more likely to be punctual, organized, and responsive traits that are essential for high job performance.

Human relations skills encompass a range of interpersonal abilities such as communication, empathy, conflict resolution, and teamwork. These skills are particularly important in secretarial roles where constant interaction with colleagues, managers, and clients is required. Nyone (2024) found a strong positive relationship between human relations skills and job performance among non-academic staff, emphasizing that empathy and anger management improve the quality of service delivery. For secretaries, the ability to build positive relationships and effectively manage interpersonal dynamics is critical for coordinating office tasks and ensuring smooth communication across departments. Moreover, effective human relations skills contribute to a healthy work environment and reduce conflicts, misunderstandings, and job stress. Employees with strong interpersonal competencies are more adaptable, emotionally intelligent, and better at navigating organizational challenges. Ebhodaghe et al. (2020) further suggest that poor human relations often result in strained workplace interactions and underperformance. Thus, human relations skills are not only essential for personal effectiveness but also significantly impact the performance of secretaries and their contribution to organizational success.

Human relations skills are directly tied to secretarial performance because they govern how secretaries interact with supervisors, colleagues, and clients. Nyone (2024) found that empathy and emotional control are vital for maintaining workplace harmony and ensuring high-

quality service delivery. Secretaries with strong interpersonal skills manage their tasks more smoothly, foster collaboration, and help maintain a productive office environment. These outcomes naturally lead to better job performance, making human relations skills an indispensable component of secretarial effectiveness.

Modern communication equipment includes digital tools such as computers, email platforms, smartphones, video conferencing systems, and document management software. These technologies have transformed the traditional roles of secretaries by automating routine tasks and enabling real-time communication. The effectiveness of secretaries now depends largely on their ability to use these tools efficiently. According to Aliu et al. (2024), modern office technologies improve secretarial performance by making tasks like document editing, scheduling, and internal communication faster and more accurate.However, the availability of modern equipment alone is not enoughproficiency and training are critical. Oyerinde et al. (2023) revealed that while many secretaries have access to digital devices, their contributions to job performance are limited due to a lack of proper usage skills. Inadequate training on how to use communication tools often leads to underutilization, reducing productivity and slowing down workflow. Therefore, modern communication equipment, when properly utilized, is a major enabler of secretarial efficiency and effectiveness in today's work environment.

Modern communication equipment plays a central role in enhancing secretaries' job performance. As technology continues to reshape office operations, secretaries are expected to be proficient in using digital tools for communication, scheduling, and data management. Adenekan and Elizabeth (2021) found that technological competence was significantly associated with better job performance among secretaries. Likewise, Aliu et al. (2024) emphasized that access to and efficient use of modern office equipment streamline workflow, reduce errors, and increase productivity, all of which are key indicators of strong job performance.

This study is essential because it addresses a significant performance gap in administrative operations by examining the combined impact of job satisfaction, human relations skills, and modern communication equipment on secretaries' job performance. Despite the evolving nature of secretarial roles in modern organizations, many secretaries still face challenges related to low motivation, poor interpersonal interactions, and underutilization of available technology. These issues have contributed to inefficiencies in administrative processes, communication breakdowns, and reduced overall productivity.

Research Hypotheses

Ho1: There is no significant influence of job satisfaction, human relations skills and modern communications equipment on the job performance of secretaries in public universities in Ogun State.

Ho2: There is no significant relative influence of job satisfaction, human relations skills and modern communications equipment on the job performance of secretaries in public universities in Ogun State.

Research Method

Research Design: The study adopted cross-sectional survey research design uses primary data to obtain data through questionnaire that was administered on respondents from the selected University in Ogun state Nigeria.

Sample Size

The Cochran (1997) formula was used to select the 150 participants that participated in this study. Mixed-method sampling techniques were adopted for this study. This approach combines both probability and non-probability sampling methods. Purposive sampling was used to select 3 universities out of the 4 public universities, as Moshood Abiola University was only upgraded to university status in 2017, whereas the other universities have been well-established over the years. Subsequently, simple random sampling was employed to select the secretaries from the chosen universities.

Table 1: Sample Size of the Study

S/N	Sampled Public universities	No. of Secretaries	No. of Selected Secretaries
1.	Federal University of Agriculture, Abeokuta	77	77 x 150/211 = **55**
2.	OlabisiOnabanjo University, Ago Iwoye	73	73 x 150/211 = **52**
3.	Tai Solarin University of Education Ijebu Ode	61	61 x 150/211 = **43**
	Total	**211**	**150**

Research Instrument: A self-designed structured questionnaire tagged "Job Satisfaction, Human Relations Skills, Modern Communications Equipment and Secretaries' Job Performance Questionnaire (JSHRSMCESJPQ)" consisting of eight sections (A – E) wasused to collect necessary data and information from the respondents.

Section A will consist of the demographic information of the respondents which include gender, age, marital status and year of job experiences.

Job Satisfaction Survey (JSS) (Spector, 1985): It a 36-item instrument designed to evaluate employee attitudes across nine facets of job satisfaction: Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Procedures, Coworkers, Nature of Work, and Communication. Each facet comprises four items, with responses captured on a six-point Likert scale ranging from "strongly disagree" to "strongly agree."

Human Relations Skills Assessment (Lussier, 2008): This assessment measures interpersonal skills critical for effective workplace interactions, including communication proficiency, conflict resolution, empathy, teamwork, and adaptability. Respondents rate their agreement with

statements related to these skills on a five-point Likert scale ranging from "strongly disagree" to "strongly agree."

Modern Communication Equipment Usage Scale (Yıldız, 2024): This scale evaluates the extent to which individuals utilize contemporary communication tools such as emails, instant messaging, video conferencing, and collaborative platforms. It assesses both the frequency of use and the perceived proficiency in operating these tools. Responses are recorded on a five-point Likert scale ranging from "never" to "always."

Job Performance Scale (University of Texas at San Antonio, 2024): This scale assesses an individual's effectiveness in their job role, focusing on aspects such as task completion, quality of work, efficiency, and overall contribution to organizational goals. Respondents indicate their level of agreement with performance-related statements on a five-point Likert scale ranging from "strongly disagree" to "strongly agree."

Method of Data Collection: The data for this study was collected through the administration of the research instruments to the participants of the study. A letter of introduction and permission sent to the public universities that made the sample of this study. Upon getting approval from the colleges, the researcher went to the public universities to administer the instruments. The respondents were guided to provide their responses to the questions outlined in the questionnaires. The instrument was collected from the respondent immediately at the spot after completion. The data collection is expected to be done within a month.

Method of Data Analysis: Collected data was analyzed using frequency counts, mean analysis and linear regression. The research questions was answered with mean analysis of the Likert scale and the hypothesis was tested using linear regression at 0.05 level of significance.

Results

Table 2: Respondents' Demographic Distribution

S/No	Variable	Category	Frequency (N =133)	Percentage
1.	Age	30 – 39 years	40	30.1
		40 - 49 years	66	49.6
		50 yrs above	27	20.3
2.	Gender	Male	56	42.1
		Female	77	57.9
3.	Educational Qualification	OND/NCE	39	29.3
		HND/Bachelor degree	81	60.9
		Masters	13	9.8

4.	Years of Job Experience	1 – 5 years	9	6.8
		6 – 10 years	29	21.8
		11 – 15 years	29	21.8
		16 years & above	66	49.6
5.	Current Position	Junior Secretary	38	28.6
		Senior Secretary	29	21.8
		Principal Secretary	47	35.3
		Chief Secretary	19	14.3

The demographic data reveal a fairly mature workforce. In terms of age, 40 (30.1%) of respondents were aged between 30 and 39 years, 66 (49.6%) aged between 40-49 years, and 27 (20.3%) aged 50 years and above. Regarding gender, 56 (42.1%) of the respondents were male while 77 (57.9%) were female, reflecting the female-dominated nature of secretarial roles in many Nigerian institutions. In terms of educational qualification, a majority of the respondents (60.9%) held an HND or Bachelor's degree, 39 (29.3%) had OND/NCE qualifications, while 13 (9.8%) had Master's degree. On the years of job experience, 66 (49.6%) have worked for 16 years and above, 29 (21.8%) respondents had between 6–10 years and 11–15 years respectively, while 9 (6.8%) had less than 6 years of job experience. As regards their current position, 47 (35.3%) were Principal Secretaries, 38 (28.6%) were Junior Secretaries, 29 (21.8%) were Senior Secretaries, and 19 (14.3%) were Chief Secretaries.

Table 3: Multiple regressions on the influence of job satisfaction, human relations skills and modern communications equipment on the job performance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1159.571	3	386.524	53.314	.000[b]
Residual	935.241	129	7.250		
Total	2094.812	132			
$R = .744$, $R^2 = .554$, Adj. $R^2 = .543$, SE = 2.693					

The first hypothesis examined whether job satisfaction, human relations skills, and the use of modern communication equipment collectively influence the job performance of secretaries in public universities in Ogun State. The results revealed a significant joint influence of the three independent variables on the criterion variable (job performance). Specifically, job performance yielded a coefficient of multiple regression (R) of 0.744 and a multiple regression square of 0.554. The coefficient of determination (R^2) was 0.554, meaning that 55.4% of the variation in job performance can be explained by the combined effect of job satisfaction, human relations skills, and modern communication equipment use. The ANOVA result confirmed the overall statistical significance of the model with an F-value of 53.314 and a p-value of 0.000 ($F = 53.314$; $p = .000 < 0.05$), indicating that the combined effect of the independent variables on job performance is significant. Since the p-value is less than 0.05, the null hypothesis is rejected.

Therefore, job satisfaction, human relations skills, and the use of modern communication equipment jointly have a statistical significant effect on the job performance of secretaries in public universities in Ogun State.

Table 4: Multiple regression on the relative influence of job satisfaction, human relations skills and modern communications equipment on the job performance

	B	Std. Error	Beta	t	Sig.
(Constant)	2.399	5.011			
Job Satisfaction	.552	.063	.555	8.812	.000
Human Relations Skill	.612	.085	.463	7.193	.000
Modern Comm. Equipment Usage	-.156	.068	-.157	-2.306	.023

The results from the regression coefficients table revealed that job satisfaction exerted a positive and statistically significant influence on job performance. The standardized beta value of 0.555, t-value of 8.812, and p-value of 0.000 ($B = 0.552$; $\beta = 0.555$; $t = 8.812$; $p < 0.05$) indicates that job satisfaction is associated with a significant improvement observed in the job performance among secretaries. Similarly, human relations skill was found to have a significant effect on secretaries' job performance. The analysis showed an unstandardized coefficient of 0.612, a standardized beta value of 0.463, a t-value of 7.193, and a p-value of 0.000 ($B = 0.612$; $\beta = 0.463$; $t = 7.193$; $p < 0.05$). This suggests that better interpersonal and communication skills significantly enhance secretarial performance in the workplace. In contrast, the use of modern communication equipment demonstrated a negative and statistically significant relationship with job performance. The regression output revealed an unstandardized coefficient of -0.156, a standardized beta value of -0.157, a t-value of -2.306, and a p-value of 0.023 ($B = -0.156$; $\beta = -0.157$; $t = -2.306$; $p < 0.05$). This negative association may suggest that while modern communication tools are available, their usage might not be effectively aligned with the daily operational duties of secretaries or could be contributing to distractions or inefficiencies.

Hence, the findings reject the null hypothesis, as each of the three independent variables, job satisfaction, human relations skill, and use of modern communication equipment, had a statistically significant individual impact on job performance. While job satisfaction and human relations skills positively influenced performance, the use of modern communication tools, though statistically significant, showed a negative effect, indicating a potential area for further investigation or targeted training.

Discussion of Findings

The results of the first hypothesis revealed a significant joint influence of job satisfaction, human relations skills, and the use of modern communication equipment on the job performance of secretaries in public universities in Ogun State. This is in line with the findings of Agubosim

et al. (2023) that there is relationship between job satisfaction and secretaries' job performance. They concluded that intrinsic and extrinsic job satisfaction factors significantly influence job performance, while Kaelani et al. (2023) emphasized that satisfaction serves as a critical link between motivation and output. A satisfied secretary is more likely to be punctual, organized, and responsive traits that are essential for high job performance.

Also, Nyone (2024) found that empathy and emotional control which are components of human relation skills are vital for maintaining workplace harmony and ensuring high-quality service delivery. Secretaries with strong interpersonal skills manage their tasks more smoothly, foster collaboration, and help maintain a productive office environment. These outcomes naturally lead to better job performance, making human relations skills an indispensable component of secretarial effectiveness. While Adenekan and Elizabeth (2021) found that technological competence was significantly associated with better job performance among secretaries. Likewise, Aliu et al. (2024) emphasized that access to and efficient use of modern office equipment streamline workflow, reduce errors, and increase productivity, all of which are key indicators of strong job performance.

The results of the second hypothesis revealed that out of the three predictors, job satisfaction is the most potent factor, followed by human relations skill, and lastly by the use of modern communication equipment. This aligns with the work of Owolabi and Makinde (2012), who stated that satisfied employees, particularly in Nigerian tertiary institutions, tend to perform better and show higher levels of commitment and productivity. Their study emphasized that motivational factors, such as recognition, advancement opportunities, and work-life balance, are central to boosting employee output. Similarly, the positive influence of human relations skills corroborates the findings of Afolabi and Balogun (2017). Their study on administrative staff in Southwestern Nigerian universities demonstrated that effective interpersonal relationships, emotional intelligence, and conflict resolution skills significantly enhance performance outcomes in administrative and secretarial roles. Human relations create a supportive work environment that fosters collaboration and job engagement.

The study also finds support in Chukwuma and Eze (2020), whose research highlighted the role of modern communication technologies in administrative tasks. However, unlike the current study, they observed a positive impact of communication equipment on performance. This disagreement may reflect contextual differences—while their sample was drawn from private universities with better infrastructure and ICT training, the current study's setting in public universities might explain the negative impact due to inadequate training, underutilization, or technological barriers.

On the contrary, Okon and Udoh (2019) presented a contradictory view by reporting that excessive reliance on modern communication devices without corresponding training reduces productivity, particularly when staff lack digital literacy. Their study aligns more closely with the negative relationship observed in this research, suggesting that technological adoption must be accompanied by institutional support, orientation, and proper integration into workflow.

The findings of this study are largely in agreement with the empirical literature concerning the roles of job satisfaction and human relations skills in predicting job performance.

The negative influence of communication equipment highlights a contextual challenge in public institutions, signaling the need for improved ICT policies, training, and structured usage strategies.

Conclusion

The result indicated remarkable level of job performance, job satisfaction, human relation skills and modern communications equipments usage by secretaries in the surveyed institutions. It was found that job satisfaction, human relations skills, and the use of modern communication equipment jointly and relatively have a significant bearings on the performance of the secretaries in the face of technology-driven office and secretarial functions. Thus, it was concluded that effective and efficient functioning of secretaries and office administrators requires the availability of technological tools, better job satisfaction and human relation skills. Therefore, public tertiary institutions in Ogun State and similar organisations should make the acquisition and adoption of technological innovation a policy and culture issue to enhance the performance of their secretaries and facilitate service delivery.

Recommendations

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

1. University management should address the issue of poor salary, fringe benefits, and promotion stagnation. Recognition, rewards, and career development plans should be emphasized to enhance job satisfaction.
2. Regular workshops and training should be organized on workplace ethics, emotional intelligence, and team dynamics to further boost human relations capacity.
3. Universities should invest in modern communication tools and provide comprehensive digital literacy training. This includes both hardware upgrades and software usage training tailored to administrative tasks.
4. Universities should align the use of communication equipment with job roles by developing clear ICT policies, guidelines, and support systems for effective usage.
5. The National Universities Commission (NUC) and related agencies should develop benchmarks for secretarial roles in university administration, incorporating performance metrics that account for both human and technological factors.

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