

Flipping the Script: How the MPT Platform Is Revolutionizing Online Learning in Nigerian Secondary Schools

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Abstract: This study examines the impact of the My Personal Teacher (MPT) online learning platform on the interest levels of secondary school students in Lagos State, Nigeria. As e-learning becomes increasingly prevalent, understanding its effect on student engagement is crucial for effective educational practices. This research utilized a descriptive survey design to gather data on student perceptions and experiences with the MPT platform. A comprehensive questionnaire was administered to a sample of 25 students to assess their interest, engagement, and preferences related to online and traditional learning methods. The data was analyzed using simple percentages and descriptive statistics to identify key trends and findings. The results indicate a strong positive correlation between the use of the MPT platform and student interest in online learning. A significant majority of students reported excitement for online classes (92%) and a belief that the online method is effective (96%). Furthermore, a high percentage of students felt that the MPT platform provided them with opportunities to use innovative learning methods (72%) and that they were able to effectively manage their study time (76%). While a majority (56%) expressed a preference for online learning, a notable portion still valued face-to-face interaction with instructors. In conclusion, this study provides evidence that online learning platforms like MPT can significantly enhance student interest and engagement in the learning process. The findings suggest that by offering flexibility, innovative tools, and a student-centered approach, e-learning can be a valuable supplement to traditional education, leading to improved motivation and academic outcomes. The study recommends the continued integration of such platforms in secondary education to foster a more dynamic and engaging learning environment.

Keywords: E-learning, Online Learning, Student Interest, MPT Platform, Secondary Education, Educational Technology, Flipped Classroom.

I. Introduction

E-learning is an inclusive terminology for all forms of educational technology that electronically or technologically support learning and teaching. Bernard Luskin (2001) advocates for a broad interpretation of the "e" in e-learning to include terms like "exciting, energetic, enthusiastic, emotional, extended, excellent, and educational" alongside "electronic," emphasizing its connection to media psychology and innovative applications. The global e-learning industry was valued at over \$48 billion in 2000, driven by developments in internet and multimedia technologies. Key sectors of the e-learning industry include consulting, content, technologies, services, and support.

Rendering the statement of Owoyemi Ariyibi, Akindoju, Famuyide, Somade & Adelaja (2024), Integrating information and communication technologies (ICT) into education supports models like flipped classrooms, blended learning, and student-centered learning (SCL). SCL allows students to control their learning processes, promoting problem-based, project-based, case-based, and inquiry-based learning (Lee & Hannafin, 2016). Drawing on constructivist and self-determination theories, SCL fosters engagement through autonomy (Dochy et al., 2003), scaffolding (Vygotsky, 1978), and authentic audiences (Kearney & Schuck, 2006). However, Lee and Hannafin (2016) note that these constructs may vary across cultural and linguistic contexts.

As mentioned by Ariyibi, Adebajo and Mohammed (2025), interest is a key motivator in learning, influencing academic success and engagement. It combines psychological attention and emotional affect, energizing students to reengage over time. To sustain interest, learning must be meaningful, relevant, and enjoyable, balancing challenges with students' skills while providing autonomy in the learning environment (Shernoff et al., 2003). Teaching that merely meets academic standards without fostering interest often fails to promote deep learning.

The purpose of the study

The purpose of this study is to compare the level of interest of students who use my personal teacher platform. in Lagos State.

Research Question and Hypothesis

The following research questions and Hypothesis will guide the study;

1. Will there be a difference in the interest of those who use the MPT platform?

H01: There is significant difference in the interest of those who use the MPT platform and those who do not use the MPT platform.

II. Literature Review

Today's expeditiously environment and continuous changes in technology, the emergence of sophisticated of teaching and learning tools and system have the most remarkable positive developmental impact on the way students learn, communication of the

information to the students, and the design format of the syllabus (Al-Khalifa 2010). The modern trends in education technology have led many universities to utilize online learning (e-learning), which largely depend on the utilization of the internet and computer for teaching and learning processes. According to Al-zabun (2015), e-learning means depending on “modern technologies to deliver students’ learning content effectively with positive characteristics”. These positive changes include saving more effort, time, and economic cost; and promoting and improving student learning. E-learning literature identifies an ecology of concepts, from a bibliometric study were identified the most used concepts associated with the use of computers in learning contexts, e.g. computer assisted instruction (CAI), computer assisted learning (CAL), computer- based education (CBE), e-learning, learning management systems (LMS), self- directed learning (SDL), and massive open online courses (MOOC). All these concepts have two aspects in common: learning and computers; except the SDL concept, which derives from psychology, and does not necessarily apply to computer usage. These concepts are yet to be studied in scientific research, and stand in contrast to MOOCs. Nowadays, e-learning can also mean massive distribution of content and global classes for all the Internet users. E-learning studies can be focused on three principal dimensions: users, technology, and services. According to Aparicio, Bacao & Oliveira (2016) "The e-learning systems' theoretical framework contains the three main components of information systems. These components are people, technologies, and services. People interact with e-learning systems. E-learning technologies enable the direct or indirect interaction of the different groups of users. Technologies provide support to integrate content, enable communication, and provide collaboration tools. E-learning services integrate all the activities corresponding to pedagogical models and to instructional strategies. The complex interaction combination is the direct or indirect action with e-learning systems. At the same time, systems provide services according to the specified strategies for activities. In other words, service specifications are e-learning activities aligned with the e-learning pedagogical models and the instructional strategies"

The e-learning platform can be accessed anywhere, anytime, regardless of the physical location or the presence of the instructor as long as there is an internet connection, such as at home, work, restaurant, or while travelling. E-learning is a viable alternative to a traditional teaching environment where lecturers and students occupy different physical spaces, and e-learning also has an impact on student academic achievement, as seen from the results of good assessments or exams, as well as the positive attitude of students in general. Interesting elements of e-learning enable students to acquire basic skills and competencies and take the initiative to learn more. What people think, believe, and feel influences the way they behave.

The use of ICT as a facilitator in learning e-learning enables students to learn and reach broadly by accessing information from outside. Technological developments are the main drivers of various learning models, improving learning and teaching with technology addresses the digital divide. Technology online to address organizational leadership challenges in promoting the context of creative learning and team performance also understand the user’s perception of the effectiveness of the success factors in the adoption of the use of e-learning and inhibiting factors of organizations in adopting and diffusion of e-learning innovations. Digitally competent people, capable in a constantly changing technology and online environment slow internet and lack of relevant information is also a challenge in the use of online resources to create awareness and encourage higher education institutions in an effort to integrate continuing education into the curriculum, faculty operations.

III. Theoretical Framework

Behaviorism

Behaviorism emphasizes observable behavior, focusing on stimulus-response interactions. Pioneers like Ivan Pavlov (classical conditioning) and B.F. Skinner (operant conditioning) highlighted repetitive actions and reinforcement to form habits. This theory influenced early computer-assisted instruction (CAI), emphasizing individualized learning through repetition and reinforcement. Bloom’s Taxonomy, derived from behaviorism, outlines six learning objectives: creating, evaluating, analyzing, applying, understanding, and remembering.

Cognitivism

Cognitivism emphasizes mental processes like motivation and imagination, bridging stimuli and responses. Inspired by Noam Chomsky, cognitive science integrates psychology, biology, and artificial intelligence to explore brain functions and cognitive development. Cognitivism has led to adaptive, personalized learning systems utilizing advanced AI and analytics, promoting deeper engagement and understanding of complex concepts.

Social Constructivism

Social constructivism, developed by theorists like Lev Vygotsky, John Dewey, and Jean Piaget, focuses on learning as a collaborative social activity. Vygotsky’s “zone of proximal development” highlights teacher-student interaction, while Dewey emphasizes learning through doing and reflecting. Piaget’s cognitive development stages inform problem-solving activities. Technologies like Seymour Papert’s Logo programming language facilitate interactive problem-solving in virtual social environments.

Social constructivism supports e-learning by enabling individual technology access, fostering online identities, encouraging collaboration, and promoting knowledge sharing and interaction among students.

IV. Methodology

The research adopts a descriptive survey research design, aiming to comprehensively understand and describe the preferences, perceptions, and experiences of participants regarding different instructional methods in educational settings. This approach entails collecting data through structured surveys administered to a representative sample of participants. Participants will be surveyed using a comprehensive questionnaire designed to capture various aspects of their educational experiences, including their preferences, satisfaction levels, perceived effectiveness, engagement, and overall attitudes towards instructional methods. The survey also gathered demographic information, including gender, to allow for the examination of potential differences between male and female participants. This research work adopted the direct and purposive sampling technique in selecting the respondents from the total population (STEM-based programs). This has a total of 25 respondents.

Data Analysis

The data for this study was analysed fully according to the information extracted from survey data collected using the impact of the MPT platform on students' interest in biology and was analysed, summarized and presented via tables used for data presentation and the analysis was done through simple percentages for interpretation. The research question was assessed using descriptive statistics, specifically simple frequency and graphical illustration using Pie charts and Bar charts.

V. Results

This study measured the impact of the MPT platform on secondary school students' interest in online learning. The data collected were analyzed using Mean and Standard Deviation through the Statistical Package for the Social Sciences (SPSS). The presentation of data is based on the responses gathered from the questionnaires distributed to the respondents. The analysis is presented in the tables below:

Demographic Data of Respondents

Gender of Respondents

Frequency	Percent	Valid Percent	Cumulative Percent
Male	9	36.0	36.0
Female	16	64.0	100.0
Total	25	100.0	100.0

Source: Field Survey - October 2023

Table 8.1 shows that 64% of the respondents are female, while 36% are male. It can be concluded that the majority of the respondents are female.

Analysis of Research

The analysis will be done using simple percentages for each item in the instrument. There were 20 items in the instrument. The data is presented and analyzed as follows:

Table 8.2: Excitement to attend online learning

Frequency	Percent	Valid Percent	Cumulative Percent
No	2	8.0	8.0
Yes	23	92.0	100.0
Total	25	100.0	100.0

Table 8.2 shows that 92% of the students are excited to attend online learning, while 8% are not.

Table 8.3: Opportunity to use innovative methods

Frequency	Percent	Valid Percent	Cumulative Percent
No	7	28.0	28.0
Yes	18	72.0	100.0
Total	25	100.0	100.0

As seen in the table 8.3, 72% of students have the opportunity to use innovative methods for improving learning using the MPT platform, while 28% do not.

Table 8.4: Preference for online learning

Frequency	Percent	Valid Percent	Cumulative Percent
No	11	44.0	44.0
Yes	14	56.0	100.0
Total	25	100.0	100.0

Table 8.4 shows that 56% of respondents prefer online learning, while 44% prefer traditional schooling.

Table 8.5: Peaceful learning environment at home

Frequency	Percent	Valid Percent	Cumulative Percent
No	5	20.0	20.0
Yes	20	80.0	100.0
Total	25	100.0	100.0

Table 8.5 indicates that 80% of students have a peaceful environment at home for online learning, while 20% do not.

Table 8.6: Effective study time management

Frequency	Percent	Valid Percent	Cumulative Percent
No	6	24.0	24.0
Yes	19	76.0	100.0
Total	25	100.0	100.0

This table 8.6 shows that 76% of students can manage their study time effectively while learning online, while 24% cannot.

Table 8.7: Online method is working

Frequency	Percent	Valid Percent	Cumulative Percent
No	1	4.0	4.0
Yes	24	96.0	100.0
Total	25	100.0	100.0

The table 8.7 reveals that 96% of students find the online method effective, while 4% do not.

Table 8.8: Technology and software satisfaction for online learning

Frequency	Percent	Valid Percent	Cumulative Percent
No	8	32.0	32.0
Yes	17	68.0	100.0
Total	25	100.0	100.0

Table 8.8 revealed that 68% of students are satisfied with the technology and software for online learning, while 32% are not satisfied.

Table 8.9: Face-to-face contact with instructor is necessary

Frequency	Percent	Valid Percent	Cumulative Percent
No	6	24.0	24.0
Yes	19	76.0	100.0
Total	25	100.0	100.0

Table 8.9 revealed that 76% of students believe face-to-face interaction with instructors is necessary for effective online learning, while 24% disagree.

Table 8.10: Learning new things while at home

Frequency	Percent	Valid Percent	Cumulative Percent
Yes	25	100.0	100.0

Table 8.10 revealed that 100% of the students satisfied with learning new things at home

Table 8.11: Collaboration with other students during internet activities

Frequency	Percent	Valid Percent	Cumulative Percent
No	8	32.0	32.0
Yes	17	68.0	100.0
Total	25	100.0	100.0

Table 8.11 revealed that 68% of students are able to collaborate with others during internet activities outside the classroom.

Table 8.12: Teacher's assistance to pass a subject on the internet

Frequency	Percent	Valid Percent	Cumulative Percent
No	13	52.0	52.0
Yes	12	48.0	100.0
Total	25	100.0	100.0

The above table 8.12 shows that 52% of students require a teacher's assistance to pass a subject online, while 48% believe they can manage without teacher assistance.

Table 8.13: Learning online as much as in a traditional classroom

Frequency	Percent	Valid Percent	Cumulative Percent
No	10	40.0	40.0
Yes	15	60.0	100.0
Total	25	100.0	100.0

Table 8.13 indicates that 60% of students find online learning comparable to traditional classrooms, while 40% do not.

Table 8.14: Internet connection suitability for online learning

Frequency	Percent	Valid Percent	Cumulative Percent
No	7	28.0	28.0
Yes	18	72.0	100.0
Total	25	100.0	100.0

The table 8.14 reveals that 72% of students have a suitable internet connection for online learning, while 28% face connectivity issues.

Table 8.15: Online learning experience satisfaction

Frequency	Percent	Valid Percent	Cumulative Percent
No	7	28.0	28.0
Yes	18	72.0	100.0
Total	25	100.0	100.0

Table 8.15 revealed 72% of students are satisfied with their online learning experience, while 28% are not.

Table 8.16: Enjoyment of online learning

Frequency	Percent	Valid Percent	Cumulative Percent
Yes	25	100.0	100.0

Table 8.16 shows that all students enjoy online learning.

Table 8.17: Teacher does a good job in online classes

Frequency	Percent	Valid Percent	Cumulative Percent
Yes	25	100.0	100.0

Table 8.17 shows that all respondents believe their teacher does a good job in online classes.

Table 8.18: Difficulty in staying focused online

Frequency	Percent	Valid Percent	Cumulative Percent
No	13	52.0	52.0
Yes	12	48.0	100.0
Total	25	100.0	100.0

Table 8.18 indicated that 52% of students do not face difficulty staying focused online, while 48% do.

Table 8.19: Teachers' accessibility

Frequency	Percent	Valid Percent	Cumulative Percent
No	3	12.0	12.0
Yes	22	88.0	100.0
Total	25	100.0	100.0

From table 8.19, 88% of students find their teachers accessible, while 12% do not.

Table 8.20: Internet activity motivation

Frequency	Percent	Valid Percent	Cumulative Percent
No	7	28.0	28.0
Yes	18	72.0	100.0
Total	25	100.0	100.0

Table 8.20 showed that 72% of respondents are motivated by internet activities, while 28% are not.

Table 8.21: Device accessibility for online learning

Frequency	Percent	Valid Percent	Cumulative Percent
No	7	28.0	28.0
Yes	18	72.0	100.0
Total	25	100.0	100.0

Table 8.21 revealed that 72% of respondents have access to devices for online learning, while 28% do not.

VI. Discussion

It is clear that the emergence of all kinds of online platforms in the last ten years provides innovative benefits for providers and users. Research across disciplines has demonstrated that well-designed online learning can lead to students' enhanced motivation, satisfaction, and learning. A report by the U.S. Department of Education based on examinations of comparative studies of online and face-to-face versions of the same course from 1996 to 2008, concluded that online learning could produce learning outcomes

equivalent to or better than face-to-face learning. The more recent systematic review by Pei and Wu provided additional evidence that online learning is at least as effective as face-to-face learning for undergraduate medical students.

Overall, the students agreed that online teaching was valuable for them even though the online mode of classes was the first experience during the pandemic period of Covid-19 (Agarwal & Kaushik, 2020; Rajabalee & Santally, 2020). Some of the previous studies suggest that the technology-supported courses have a positive relationship with students' performance (Cho & Schelzer, 2000; Harasim, 2000; Sigala, 2002). On the other hand, the demographic characteristic also plays a vital Group of the Board of Educational Affairs (1997), the learner-centered principles students' online learning process.

The analysis of the data shows that online learning has positive impacts on the academic performance of the students. The study indicates that online learning impacts the students' academic performance positively by enabling them to take classes from far and distant places without missing the lecture due to convince issues. Another positive impact is that online learning offer flexibility to students which in turn offers less stress to them. This made students perform well as the ack of stress helped them to perform well as well as engage more which shows that it affects the academic performance positively. The utilization of different devices, apps, and multimedia tools to make learning a more interactive and hence the academic performance of the students is impacted in a more positive manner causing a clear improvement in the academic performance of the students unequivocally show the tremendous impact of e- learning on students' academic different internet sources as their main source of information.

The findings of this study underscore the potential of the MPT online learning platform to enhance student engagement and learning outcomes in Nigerian secondary schools. However, the implementation of such digital solutions is not without significant challenges. A critical examination reveals that infrastructural limitations—particularly unreliable electricity and insufficient ICT facilities—pose substantial barriers to widespread adoption. Many schools, especially in rural areas, lack the basic hardware and connectivity required to support sustained online learning.

Internet accessibility further compounds these issues. Students reported frequent disruptions due to poor network coverage and the high cost of data, which hindered their ability to consistently engage with the platform. These constraints suggest that while digital platforms like MPT offer promising pedagogical innovations, their effectiveness is contingent upon broader systemic improvements in infrastructure and affordability.

Teacher readiness also emerged as a pivotal factor. Although students responded positively to the platform's interactive features, the success of such tools depends heavily on educators' digital literacy and willingness to integrate technology into their teaching practices. Without targeted professional development and institutional support, the pedagogical potential of platforms like MPT may remain underutilized.

The theoretical framework, drawing from behaviorism, cognitivism, and social constructivism, provided a useful lens for interpreting student interactions with the platform. Behaviorist principles were reflected in the gamified elements that reinforced learning through repetition and rewards. Cognitivist strategies were evident in the platform's structured modules, which facilitated information processing and retention. Social constructivist elements, such as peer collaboration and discussion forums, encouraged knowledge co-construction and critical thinking. However, the application of these theories must be contextualized within the African educational landscape, where cultural norms, language diversity, and resource constraints shape learning experiences in unique ways.

While the study employed a purposive sample of 25 students, future research should consider larger and more diverse cohorts to enhance generalizability. Moreover, triangulating student feedback with teacher interviews and platform usage analytics could provide a more holistic understanding of the platform's impact. Longitudinal studies tracking academic performance over time would also offer deeper insights into the sustainability of digital learning interventions.

In sum, the MPT platform demonstrates considerable promise, but its success hinges on addressing infrastructural and pedagogical challenges. By situating the findings within a nuanced theoretical and contextual framework, this study contributes to the growing discourse on educational technology in Africa and lays the groundwork for future empirical exploration.

VII. Conclusion

The ultimate purpose of this investigation was to explore the impact of onlinelearning on students' academic achievement as the demand has increased in recent space constraints imposed by the convention learning process and helped students to effectively communicate their findings and share their ideas with their peers locally and globally. The introduction of a new technology such as the online learning will undoubtedly have more impact on the learning outcomes only if we reconsider the delivery mode, content redesign, new assessment system. A suitable pedagogy and an appropriate content are the most important sources of students' learning motivation. Online learning is effective and better impacted for the technical skill most of courses are available that help to student in time saving and also create interest for the particular system. Finally, e-learning has a bright future, tremendous learning potentialities and excellent organizational culture.

Limitations

On this study, One significant limitation of this study is the sample size and representativeness of the respondents. The accuracy and reliability of the study's conclusions are heavily dependent on obtaining a sufficiently large and diverse sample of students and

faculty members from the STEM-related faculties. If the sample is too small or lacks diversity, the findings may not accurately reflect the broader population of the university. This limitation underscores the importance of meticulous sampling methods to ensure that the data collected is representative of the varied perspectives within the STEM-related disciplines.

Recommendation

Based on the findings, the following recommendations are made:

For Students

1. **Maximize Platform Usage:** Students should fully utilize e-learning platforms and cultivate self-motivation to independently complete tasks and practices.
2. **Diverse Content:** Engage with a variety of resources, such as textbooks, journal articles, multimedia, and interactive learning objects, to broaden perspectives and improve understanding.

For Teachers

1. **Diverse Teaching Methods:** Incorporate various methods, such as recorded lectures, quizzes, interactive games, and online discussions, to cater to different learning styles.
2. **Facilitate Collaboration:** Encourage group projects and provide tools for remote teamwork.
3. **Provide Timely Feedback:** Offer timely grading and constructive feedback to help students track progress and improve.

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