Schoology As A Learning Management System For Teaching And Learning In Rivers State Tertiary Institutions

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Abstract – Schoology's potential as a learning management system for teaching and learning at Rivers State Tertiary Institutions was examined in this study. To direct the investigation, three research questions and three hypotheses were developed and tested. Descriptive survey design was the method used for the investigation. The population of the study consisted of 215 year two students from the department of curriculum studies and instructional technology at Ignatius Ajuru University of Education and 170 year two students from the department of computer science at Captain Elechi Amadi Polytechnic. 150 respondents were selected as a sample from two tertiary institutions in Rivers State. To obtain the respondents' responses, the researchers used a questionnaire as their instrument. For the study, face and content validity were applied, and a reliability coefficient of 0.67 was found. The mean, standard deviation, and z test statistics were used to present, evaluate, and interpret the data obtained from the respondents, with an alpha level of 0.05. The study's findings showed that schoology promotes instructional activities both in traditional classroom settings and in online learning environments. It also improves students' learning options and gives them more flexibility over when and how they learn. The study suggested, among other things, that teachers adapt the platform to their students' needs and create engaging projects to add variation to online learning. It was also recommended that teachers can upload resources, start group projects and conversations, annotate and evaluate, and create relevant tests with a fair amount of ease also teachers and school officials can keep crucial materials in group folders that anybody can access for assistance.

Keywords – Schoology, learning management system, teaching, learning, collaboration, paperless communication, feedback,post Covid-19.

I. INTRODUCTION

Schoology is a cloud-based LMS that focuses on curriculum management, resource sharing, and system-wide collaboration. The learning management system Schoology was developed in 2007 by four college students: Jeremy Friedman, Ryan Hwang, Tim Trinidad, and Billkindler. (Priyatno, 2017).

Schoology's improved Google and Microsoft connectivity opens up new possibilities for developing more engaging curricula that work with the resources teachers already use. It's simple to integrate or attach Google Docs or Slides into a class page. Schoology even makes a special copy for each person as soon as they click on the link for the assignment (Marcus, 2021). The creation of a parent or grade-level group and the posting of class events and school announcements there can help strengthen the relationship between the home and the school. Important materials can be kept by teachers and school officials in group folders that are accessible to everyone.

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Wherever they are, instructors and students may communicate and learn together. To assist instructors in creating assignments, Schoology includes options for course planning, you can link many resources as a teacher, including tests, packages, discussion forums, and more. The platform's options for personalised training let you provide your pupils requirements and let them interact with content. There are various tools for grading, such as highlighting and annotating (Sriyanto & Kaniadewi, 2019).

Similar to how Edmodo or Google Classroom link with student information systems, Schoology does as well. The platform enables administrators to link a current learning management system with the student information system. The tool provides a fantastic platform for post-secondary institutions as a result. The assessment management platform at Schoology enables the formation of assessment teams based on the courses to establish the course standards. Additionally, standards can be modified to be applicable to numerous courses at once. Additionally, assessments can be automatically updated and saved. The platform's tools also enable you to evaluate pupils on various skills while utilizing a variety of media, including videos and photographs (Lustiana, Dwi, Moh & Nurul, 2020).

There are groups on Schoology for clubs, classes, sports teams, and departments. By joining organizations that match their interests, educators can take advantage of this. Users (students and teachers) who have access to Schoology can access course materials whenever and wherever there is an internet connection. Since the course materials are on Schoology, it won't be a problem if any of your students misplace a worksheet or project outline. The LMS that instructors previously used to access opportunities for professional development has been replaced by Schoology. Schoology offers students a variety of options to enhance their learning. Schoology is accessible to both students and teachers online and via mobile apps for iOS, Android, and Kindle devices (Schlager, 2016).

In 60,000 secondary schools and universities around the world, there are over 8 million pupils. The online gradebook allows users to quickly and continuously give student feedback (Luis-Fermin, Sergio & Saiz-Colomina, 2018).

The following functions on Schoology can aid in achieving the greatest outcomes:

- Making standard assessments; recording and viewing video projects.

- Making use of outside apps.

- Using the online gradebook to provide quick and continuous student feedback (Nguyen &Nguyen, 2022)

Students in one Indonesian study by Napitupulu et al. (2020) expressed appreciation for the flexibility offered by this LMS for learning the course materials or submitting assignments.

Schoology was created to facilitate educational activities both in traditional classroom settings and online learning environments. It increases educational options for pupils and allows them more freedom over when and how they learn (Drumm, 2023). The advantages of adopting Schoology are as follows:

1. Differentiation: When generating an assignment on the classwork page, teachers can differentiate teaching for learners by assigning lessons to the entire class, specific students, or groups of students with just a few easy steps (Brillian, 2018).

2. Feedback: Giving pupils insightful feedback is an important component of all learning. Teachers can offer feedback on tasks to each student using the grading tool in the classroom. Additionally, the classroom mobile app lets users mark work, and the grading tool offers the option to establish a comment bank for later use.

3. Data analysis: Teachers should examine assessment data to make sure students comprehend learning objectives in order to make learning meaningful. It is simple to export data from assessments into Sheets for sorting and analysis (Biswas, 2013).

4. Communication: The built-in features make it simple to communicate with parents and students. Emails, posts to the stream, private comments on assignments, and feedback on work can all be sent between teachers and students. Teachers have complete control over student comments and posts, and they can contact parents via personal emails or email summaries that include announcements about the class and due dates.

5. Collaboration: There are many opportunities for student collaboration in the classroom. Students can interact on google docs that the professors have shared with them, and teachers can support online dialogues amongst students and organize group projects in the classroom.

6. Paperless: The classroom is entirely paperless, so teachers and pupils won't have a lot of paper to shuffle. Students can access missed work due to absences and find other resources by searching for it on Google Drive when teachers submit assignments to Classroom (Uduak & Kasumu, 2022).

Whether at the secondary, college, or university levels of education, technology has significantly improved the current educational system. Technology use has increased to make teaching and learning in the classroom more efficient, learner-centered, and outcome-focused. However, it has also encouraged teachers to use technology as a tool to close the gap between traditional learning and contemporary educational requirements for the learner's overall development. Since Schoology as a learning management system for teaching and learning of Instructional technology in Rivers State Tertiary Institutions hasn't been investigated, reported on, or explained, the researcher wants to learn how it can be used to deliver online instruction.

Schoology is mostly useful for taking advantage of colleagues' online expertise and knowledge, particularly for enhancing components of the social learning education that this program enables for students. Since there is little research on Schoology, particularly in tertiary institutions in Rivers State, it is necessary to look into Schoology as a learning management system for teaching and learning of Instructional technology in Rivers State Tertiary Institutions. One of Schoology's benefits is that it allows students to communicate with one another indefinitely. A great chance for the researcher to demonstrate to the respondents the ease of utilizing the tool to assist them in their classroom management chores is to look at the use of Schoology as a learning management system. The study investigated the respondent's perception of the use of the application in terms of its acceptability and which factors significantly affected the respondents' consistency of use. Schoology has benefits for communicating, posting materials and assignments, and promoting paperless communication.

II. STATEMENT OF THE PROBLEM

There are always those who are left behind whenever the economy undergoes a significant change. People who relied on being able to find work doing menial tasks during this time were left behind when automation took control. It will soon see an industrial revolution when a lot of the low-skilled digital labor will be replaced by artificial intelligence, and the workforce will once again be unprepared for this change. Education must be the first line of defense in the fight against the skills gap in the workforce, but sadly, many classrooms still lag behind. The good news is that there are technological solutions available to help close this talent gap before it causes an economic crisis. Schoology is improving student learning in classrooms where students and teachers have access to computers and the Internet. At the same time, challenges for such a vision statement and planning document are brought on by misconceptions and myths about the difficulty of teaching and learning, technologies available to support online instruction, the support and compensation required for high-quality instructors, and the requirements of online students.

The COVID-19 pandemic compelled the education sector to switch from a face-to-face learning system to an online one in order to break the COVID-19 transmission chain. Lecturers and students must adjust to the new ways that knowledge is delivered through online learning as a result. Because it enables the establishment of online classrooms, the Schoology application was chosen in teaching and learning.

III. AIM AND OBJECTIVES

Examining Schoology as a learning management system for teaching and learning in Rivers State Tertiary Institutions is the goal of this study. The study's goals are as follows:

1. Examine how Rivers State Tertiary Institutions use Schoology for teaching and learning

2. Ascertain the effect of the curriculum on students at Rivers State Tertiary Institution

3. Examine the difficulties in implementing Schoology in Rivers State Tertiary Institutions for teaching and learning.

IV. RESEARCH QUESTIONS

1. How do teachers in Rivers State Tertiary Institutions use Schoology for teaching and learning?

2. What are the effects of Schoology on instruction and learning in an online classroom?

3. What issues do students encounter when utilizing Schoology for educational purposes?

V. HYPOTHESES

Ho_1: There is no significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi Polytechnic students' use of schoology for teaching and learning.

Ho_2: There is no significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi Polytechnic impact of schoology for teaching and learning.

Ho_3: There is significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi problems while using schoology for teaching and learning.

VI. METHODS

A descriptive survey research design was used for this investigation. In Rivers State Tertiary Institutions, it aims to investigate Schoology as a learning management system for teaching and learning. Elechi Amadi Polytechnic and Ignatius Ajuru University of Education both participated in the study. The population of the study consisted of 215 year two students from the department of curriculum studies and instructional technology at Ignatius Ajuru University of Education and 170 year two students from the department of computer science at Captain Elechi Amadi Polytechnic. The study employed a sample of 150 students. The selection procedure used a stratified sampling technique. The instrument used to gather the data consisted of a structured questionnaire with 21 items. A reliability coefficient of 0.67 was attained utilizing Pearson product moment correlation and face and content validity. The statistical tool utilized was the mean and Z-test.

VII. RESULTS AND FINDINGS

Research Question 1: In Rivers State Tertiary Institutions, how are teachers use Schoology for teaching and learning?

Table 1: Schoology usage for education and learning

S/N	Items Uses of schoology for teaching and learning	SA	A	SD	D	Mean	SD	Total Respondents
1	Schoology is user-friendly.	136	10	4	-	3.88	0.39	150
2	There is security in place to protect pupils.	100	40	10	-	3.60	0.61	150
3	Schoology offers teachers effective resources and tools to improve instruction.	125	20	5	-	3.80	0.47	150
4	Schoology provides educational support for classroom and online learning environments.	148	2	-	-	3.98	0.11	150
5	With Schoology, students have more options for learning and flexibility over when and how they learn.	142	8	-	-	3.95	0.22	150
6	Schoology gives students access to their assignments, which helps them learn independently, especially on days when they participate in remote learning.	99	49	2	-	3.64	0.50	150
7	Schoology features that allow teachers save time, create and share resources inside their own virtual learning	123	20	7	-	3.77	0.52	150

						Mean	SD	Total Respondents
	environment simplify their lives and tasks for them.							
8	Schoology assists in monitoring student performance.	134	10	6	-	3.85	0.45	150
9	Schoology aids in enhancing student-teacher interaction and individualized learning for each student.	130	20	-	-	3.86	0.34	150
10	Teachers can upload Google Docs, Sheets, and other types of assignments.	143	7	-	-	3.95	0.21	150
	Average Mean					3.83	0.38	

Table 1 demonstrates that students embraced the usage of Schoology for teaching and learning as a whole. This is so because the overall item mean was higher than the 2.50 criteria mean. Schoology facilitates educational activities in both classroom and distance learning settings, improves students' learning options, and gives students greater flexibility over when and how they learn, according to an overall mean of 3.83.

Research Question 2: What are the effects of Schoology on instruction and learning in an online classroom?

Table 2: Impact of schoology for teaching and learning online

S/N	Items **Impact of schoology for teaching and learning**	SA	A	SD	D	Mean	SD	Total Respondents
1	Students develop at various rates, and their teachers must identify, treat, and keep an eye on both their strengths and flaws.	129	20	1	-	3.85	0.37	
2	Schoology helps difficult students because technology provides a variety of learning formats that are simple for teachers and students to access.	139	9	2	-	3.91	0.33	
3	For every student, Schoology provides a program that has the capacity to vary a lesson.	109	40	1	-	3.72	0.46	
4	With its platform, Schoology hopes to incorporate as many aspects of the learning process as it can.	126	20	4	-	3.81	0.45	
5	Schoology aids in streamlining the educational process for pupils, parents, and teachers.	141	5	4	-	3.91	0.36	
	Average Mean					3.84	0.39	

Table 2 demonstrates that students accepted the complete item on Schoology's effects on online teaching and learning. This is because the overall mean of 3.84 indicates that Schoology supports difficult learners. Technology offers a variety of learning formats that can be quickly accessed by teachers and students, and it helps to make the educational process simpler for students, parents, and teachers.

Research Question 3: What issues do students encounter when utilizing Schoology for educational purposes?

Table 3: Problems students face while using schoology for learning

S/N	Items **Problems students face while using schoology**	SA	A	SD	D	Mean	SD	Total Respondents
1	Students may become distracted and go from the main course of study.	114	30	6	-	3.76	0.53	150
2	On a computer, only one account can be open at once.	146	2	2	-	3.96	0.25	150
3	Teachers can regulate student comments and discussions.	120	30	-	-	3.80	0.40	150
4	Schoology lacks customization in all areas and is not very user-friendly.	89	51	10	-	3.58	0.62	150
5	Setting up can be challenging and/or time-consuming.	97	50	3	-	3.62	0.52	150
6	Logging onto the learning management system is challenging.	100	30	20	-	3.53	0.71	150
	Average Mean					3.70	0.50	

Table 3 demonstrates that when utilizing Schoology for learning, pupils acknowledged the entire mean as a problem. This is because there can never be two accounts open at once on a computer, and teacher moderation of student comments and debate is possible because the aggregate item mean is higher than the criterion mean of 2.50.

Hypotheses

Ho1: There is no significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi Polytechnic students' use of schoology for teaching and learning.

Ho1 table of difference to examine IAUE and CEAP students' use of schoology for teaching and learning.

Group	Mean	SD	N	Df	Standard Error	Z(Cal)	Z (Tab)	Decision
IAUE	3.84	0.39	50	98	0.08	1.56	1.96	Accepted
CEAP	3.70	0.50	50					

The calculated value of Z (cal) is less than the tabular value; hence the null hypothesis is accepted. This implies that there is no significant difference between IAUE and CEAP use of schoology for teaching and learning of computer science. This means that IAUE and CEAP impact of schoology for teaching and learning of computer science is the same. There is no significant difference in their mean impact for teaching and learning of computer science using schoology. The slight difference observed between IAUE (3.84) and CEAP (3.70) is simply due to chance.

Ho₂: There is no significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi Polytechnic impact of schoology for teaching and learning..

Ho₂ table of difference to determine the difference between IAUE and CEAP impact of schoology for teaching and learning.

Group	Mean	SD	N	Df	Standard Error	Z(Cal)	Z (Tab)	Decision
IAUE	3.80	0.40	55	98	0.09	1.91	1.96	Accepted
CEAP	3.62	0.52	45					

The calculated value of Z (cal) is less than the tabular value; hence the null hypothesis is accepted. This implies that there is no significant difference between IAUE and CEAP impact of schoology for teaching and learning of computer science. This means that IAUE and CEAP impact of schoology for teaching and learning of computer science is the same. There is no significant difference in their mean impact for teaching and learning of computer science using schoology. The slight difference observed between IAUE (3.80) and CEAP (3.62) is simply due to chance.

Ho₃: There is significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi problems while using schoology for teaching and learning.

H₀₃ table of analysis to investigate the significant difference between IAUE and CEAP students' problems while using schoology for teaching and learning.

Group	Mean	SD	N	Df	Standard Error	Z(Cal)	Z (Tab)	Decision
IAUE	3.62	0.52	60	98	0.02	5.26	1.96	Rejected
CEAP	3.53	0.71	40					

The calculated value of Z (cal) is greater than the tabular value; hence the null hypothesis is rejected. This implies that there is significant difference between Ignatius Ajuru University of Education and Captain Elechi Amadi problems while using schoology for teaching and learning of computer science. This means that Ignatius Ajuru University of Education (3.62) students face more problems while using schoology for learning than Captain Elechi Amadi Polytechnic (3.53) students.

VIII. DISCUSSION OF FINDINGS

According to Research Question 1, Schoology facilitates educational activities in both classroom and distance learning settings, improves students' learning options, and gives students more control over when and how they learn.

This study supports Zulfa & Prastiti's (2020) findings that the use of Schoology and Slido can enhance student engagement and teacher-student interaction.

In addition, Tati & Suryana (2019) discovered that students should be able to assess their own strengths and weaknesses, understand the advantages of science, use their knowledge to solve problems, and be able to put strategies into practice when using schoology.

As technology provides a variety of learning formats that can be easily accessed by teachers and students, it helps to streamline the educational experience for students, parents, and teachers. Research Question 2 demonstrates how Schoology benefits difficult learners.

According to John, Syafrizal, and Nuni's study from 2021, the use of Schoology's e-learning site during an online learning time helped students in senior high school's tenth grade develop their reading comprehension and writing skills, especially when it comes to narrative texts.

Additionally, Astuti (2019) discovered that the use of school technology supports both students and teachers in English. Through school technology, teachers can instill a paperless culture into the classroom, give online assignments and assessments, and even engage students in discussion about particular lectures.

According to Research Question 3, there can only be one computer account open at a time, and professors can regulate student comments and conversation.

This study supports the findings of Devi (2021), who discovered that there are difficulties integrating Schoology into writing classes due to the accessibility of electronic devices and internet connections for authentic materials as well as the feeling of isolation caused by the absence of face-to-face interaction in Schoology. Additionally, while using actual materials to supplement writing instruction, the instructor faces the fundamental issues of preserving the relevance and understandability of the materials for the students' level.

Additionally, Abdallah & Kelsey (2019) discovered that students have difficulties finishing online courses, getting frustrated, dropping courses, skipping classes, and finding themselves in the position of having to retake courses—not because they are lazy or not trying hard—but rather out of frustration over the platform's inability to submit their assignments or the difficulty of using its tools and features.

IX. Conclusions

Teachers can develop, administer, and share content and resources using the learning management system Schoology. Its offerings include exam and quiz preparation, attendance tracking, online gradebooks, class management, and homework drop boxes. Schoology is a website that serves as an online extension of the classroom of a teacher. The use of this classroom for announcements, important dates, photos, newsletters, discussions, courses, and videos is permitted. The study discovered that Schoology promotes instructional activities both in face-to-face and online learning settings, expands students' learning options, and gives students more control over when and how they learn.

Schoology supports struggling learners, according to the study's findings, because it makes learning more convenient for parents, teachers, and students by providing a variety of learning formats that can be quickly accessed by both. Additionally, it was discovered that professors can censor student comments and conversation and that only two accounts can be open on a computer at once.

Recommendations

Based on the conclusion, the researchers recommended that:

1. To add diversity to digital learning, teachers should develop unique projects and adapt the platform to their students' needs.

2. Teachers can upload resources, start group projects and conversations, annotate and evaluate, and create relevant tests with a fair amount of ease.

3. Teachers and school officials can keep crucial materials in group folders that anybody can access for assistance.

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