
**ONLINE CLASSROOMS AND THE ASSESSMENT OF
SOCIAL STUDIES STUDENTS IN UNIVERSITY
OF JOS, NIGERIA**

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Abstract

This study examined online classrooms and the assessment of Social Studies Students in the University of Jos. The quasi-experimental of pre-test - post-test control group design was adopted for the study. One hundred fifty (150) students were sampled from the population of 531 Social Studies students in the Department of Social Science Education through random sampling technique. Data was collected using an instrument titled Social Studies Students Achievement Test (SSAT) designed by the researchers. The reliability index of the (SSAT) was 0.79. The experimental group was taught using the online classroom method while the control group was taught using the conventional lecture method. The research questions were answered using mean and standard deviation and a t-test of independent samples was used for testing the null hypotheses at alpha 0.05 significance level. The study found that there is a significant difference between paper assessment and online assessment in favor of the online assessment, Gender difference has no significant influence in Social Studies online test assessment. The study recommended that school administrators should create

available services for students to access online classrooms contents, teachers should engage in more professional development courses to have basic literacy knowledge on computer and online classroom services.

Keywords: *Assessment, Online Classrooms, Social Studies*

Introduction

Online classrooms are a new novel approach to Social Studies teaching as it provides ample room for creating quality and engaging the students in content development. Online learning builds on the ideas of normal conventional classrooms which involve the teachers and students interacting and engagement with one another during and after the learning process. The teacher's role in the online classroom is to serve as a facilitator and conductor of content knowledge delivery by engaging the students in various curricular and extra-curricular activities.

Social Studies as a core curriculum subject taught at all levels of education is aimed at enabling students to emulate essential values and behaviors that are in cognizance with the goal and aspiration of the Nigerian society. The contemporary issues and challenges facing Nigeria strongly assert that Nigerian society is in a state of moral decadence which facilitates various social vices that manifest in form of insecurity, terrorism, drug abuse, youth unrest, and corruption among other factors nevertheless the aim of social studies aims at solving these societal issues and problems but if these problems keep on manifesting it means it has not yet achieved its main aim and objectives. Therefore the question of why" this occurs has startled various key stakeholders. Odia and Omofonmwan (2007) assert factors such as poor funding, poor educational infrastructures, inadequate classrooms, teaching aids (projectors, Computers, Laboratories, and libraries), paucity of quality teachers, and poor/polluted learning environment. In addition to these inadequacies, our school system is plagued with numerous social vices such as examination malpractices, cultism, hooliganism, and corruption. The most prevalent factors are

accessibility, inequality, quality, and relevance. The online classroom can accommodate these challenges by providing a vast array of resources at a limited cost but there is a catch to this benefit.

Basilaia and Kvavadze (2020) pointed out that online software like; Gmail, Google Forms, Calendars, G-Drive, Google Hangouts, Google Jam board and Drawings, Google Classroom, and Open Board Software are mostly used by teachers to carry out online teaching and learning activities. There are many technologies available for online education but sometimes they create a lot of difficulties. This can be solved when school administrators and teachers adapt and integrate to computers and new technological approaches that are cost-effective and stand out in delivering quality content.

The continual neglect of Social Studies in Nigerian schools cannot be undermined as various stakeholders keep on advocating for a more dynamic, engaging, learner-centered quality instruction in the Social Studies curriculum. As a core curriculum subject, its goals and objectives in contrast with the current state of the Nigerian society are in a state of despair which calls for deliberate actions to curb issues and challenges facing the Nigerian society through the lens of Social Studies. Online Classroom when taken into consideration can ensure quality, accessibility, and equality of educational opportunities as the work of Tschida and Sevier (2014), Adediran, Adelami, and Adebayo (2015) who demonstrated the adoption of online learning in Social Studies at the secondary school level, their findings revealed that online learning was better and preferred by secondary school students in Nigeria.

Also, Alagmi and Eyadat (2016), Bail and Liu (2018) supported the notion that the use of more adaptive learner center pedagogies like online classrooms and assessment, can diversify learning resources to the learner preferences of learning which can bring out a significant level of positive achievement this is because online classrooms can incorporate the use of motivation, analogies, quizzes and other learning domains that utilizes the affective and psychomotor domains. Also, Sivakumar (2018)

asserted that Social Studies has a large variety of teaching methods such as simulation, laboratory, inquiry, project, dramatizations, questions and answer, field-trips, discussion, lecture, problem-solving, dramatization, home assignment, and construction methods which can all be incorporated in an online classroom. Social Studies as a core curriculum subject which was introduced in line with the Nigerian national objectives aims at students' awareness of the problems in their society, understanding their physical and social environment, enabling students to contribute to the unity of Nigeria, acquire skills that are vital to the formation of satisfactory professional life, and appreciate their cultural heritage with the desire to preserve it.

The social issues and problems manifesting in Nigerian societies show that the objectives of Social Studies and its goals are yet to be achieved. Adesina (2013) pointed out that issues such as kidnapping, drug abuse, and cultism, and youth unrest are affecting the smooth structure of contemporary Nigerian society. Despite rigorous efforts placed by stakeholders' student achievement has been dwindling and existing problems and issues keep escalating. Many concerned stakeholders have voiced out the need to adopt more learners centered methods and worthwhile instructions which can facilitate students' interest and engagement. The current state of Nigeria requires more feasible and quality learning content that can impact a wide variety of learners. Online classrooms can achieve this need and challenges facing most tertiary institutions as it has been proven by experts such as Gillwald, Odufuwa and, Mothobi (2018), Manzoor, Sarwar, and Asim (2020) attributed to low cost and effective delivery as some of the benefits of online classrooms. If this method and application have proven effective why then has there been slow adoption and utilization of online classrooms on Social Studies Students. It is reasons of slow adoption and nonchalant attitude of school administrators to implement and execute online classrooms on assessing student's achievement in various learning classrooms the crux of this paper hinges on examining online classrooms and the assessment of Social Studies students in the University of Jos

Purpose of the Study

The major aim of this study is to examine the effectiveness of online classrooms in the assessment of Social Studies students' achievement more so, the specific objectives of the study are to:

- i. determine the effect of an online classroom on Social Studies learners achievement
- ii. determine if students' achievement in the online classroom is dependent on gender
- iii. find the extent of achievement of students exposed to the online classroom and those with traditional classrooms

Research Questions

1. What is the effect of an online classroom on Social Studies learners' achievement?
2. To what extent does students gender influence achievements in online classrooms?
3. What is the extent of achievement of students exposed to the online classroom and those with traditional classrooms?

Hypotheses

1. There is no significant difference between Students online assessment and paper test assessment
2. Gender difference does not significantly influence Social Studies online test assessment

Methods

The design for this study is quasi-experimental that involve a pre-test and post-test for both the experimental and control group of intact class of 200 300 level students of the University of Jos, which 150 students were sampled from the population of 531 students from the Social Studies unit in Social Science Department, using random sampling technique which the total sample was spilled into half ($n=75$) for both the experimental and control group. The mean score was used to analyze the research questions and a t-test was adopted for testing the null hypotheses at alpha 0.05 significance level. Data was collected using an

instrument titled Social Studies Students Achievement Post and Pre-test Test (SSSAPPT) designed by the researchers. The reliability index of the (SSSAPPT) was 0.79. However, before the commencement of the treatment, the researchers administered a pre-test to the two groups. Thereafter, the researcher taught the two groups. The experimental group was taught using the online classroom method while the control group was taught using the conventional lecture method. For the online classroom group, available internet access of the Social Sciences department was used to enable the students to download study at 7.2Mbps. 4 learning interactive modules via WhatsApp and Google Apps services which included 'Drive and Classroom' were used; each learning unit within the modules was embedded with a student activity section which evaluated students understanding on the unit. This procedure was carried out within 4 weeks At the end of the learning module, a 30 objective multiple test item was developed by the hours spent on various learning 'units' using a table of specifications with Bloom's taxonomy of learning remembering 9 questions Understanding with Applying 6 questions Analyzing and Evaluating 4 questions while Creating 1 question respectively. After the treatment periods, the researchers administered the post-test to the two groups. Data obtained were analyzed using the mean method and dependent paired t-test for the research questions and hypotheses respectively.

Results

Research Question One: What is the effect of an online classroom on Social Studies learners' achievement?

Table 1: Mean Achievement of Social Studies Students in the Post and Pre-test of the Experimental group

Group	Number	Type of Test	Mean Score	Mean Score diff
Experimental	75	Post-test	16.64	3.93
Experimental	75	Pre-test	20.57	

Table 1 depicts the mean achievement of students in the treatment group who participated in the online classroom; the table compares the student’s achievements before and after their engagement with the treatment. The post-test score obtained the mean score of 16.64, Pre-test showed 20.57 had a difference of 3.93 denotes a positive effect. Thus student achievement after the intervention had positive significant effect.

Research Question Two: To what extent does students gender influence achievements in online classrooms?

Table 2: Mean Achievement between male and female Social Studies Students in the Control and Experimental group

Group	Type of Test	Number	Mean Score Male	Number	Mean Score Female	Mean score diff
Control	Post-test	31	6.60	44	9.09	2.49
Experimental	Post-test	28	6.69	47	9.94	3.25
Control	Pre-test	31	7.16	44	9.18	2.02
Experimental	Pre-test	28	8.17	47	12.4	4.23

Table 2 depicts the gender mean achievement of students within the control and experimental group; 31 male students with 44 female students made up the control group, post-test results showed male students obtained the mean score of 6.60 and female students 9.09. The pre-test showed 7.16 and 9.18 indicating the female respondents in the control group had a higher mean score. The Experimental treatment group showed that 28 males and 47 females made up the study. The male respondents in their post-test obtained the mean score of 6.69 and 8.17 in the pre-test, female respondents in the treatment group obtained the mean score of 9.94 in the post-test and 12.4 in the pre-test. Both genders had a significant increase in their achievement level after being exposed to the treatment but however, the female mean score surpassed their male counterparts connoting that the female gender also scored higher than the male gender in the experimental group.

Research Question Three: What is the extent of achievement of students exposed to the online classroom and those with traditional classrooms?

Table 3: Mean Achievement between Students in the Control and Experimental group

Group	Type of Test	Number Score	Mean diff	Mean score
Control	Post-test	75	15.69	0.95
Experimental	Post-test	75	16.64	
Control	Pre-test	75	16.35	4.22
Experimental	Pre-test	75	20.57	

Table 3 depicts the means score and mean score difference between the control and experimental group of students who engaged in the online classroom and other conventional teaching methods. The control group and experimental group obtained the mean score of 15.69 and 16.64. The mean differences of 0.95 indicating students who participated in the online classroom score and achieved higher compared to students who were engaged in other conventional lecture-based strategies. Also, in the pre-test of the control and experimental group they obtained mean scores of 16.35 and 20.57 with a mean difference of 4.22 respectively.

Hypothesis One: There is no significant difference between Students online assessment and paper test assessment

Table 4: t-test summary of the significant difference between Students exposed to the treatment and those exposed to conventional

Group	Type of Test	N	X	SD	Tcal	Tcrit	Decision
Control	Post-test	75	16.35	4.2	-4.146	-3.204	Reject null hypotheses
Experimental	Post-test	75	20.57	4.5			

Table 4 depicts the t-test summary of hypothesis one, “students’ online assessment has no significant difference from their paper test assessment” both groups had the means score of 16.35 and 20.57 and standard deviation of 4.2 and 4.5. The t_{cal} was -4.146 and t_{crit} of -3.204. The rule guiding the decision criteria of the rejection of the null hypotheses states that you reject the null hypotheses when $t_{cal} > t_{crit}$. This means there is a significant difference between paper assessment and online assessment in favor of the online assessment.

Hypothesis Two: Gender difference does not significantly influence Social Studies online test assessment

Table 5: t-test summary of the significant difference between male and female students in the experimental groups

Group	N	X	SD	df	Tcal	p.value	Tcrit	Decision
Female	47	12.4	4.48	67	-2.24603	0.05	1.996008	Reject null hypotheses
Male	28	8.7	3.55					

Table 5 depicts the male and female score difference for the experimental group had 47 females and 28 males. The female students obtained a mean score of 12.4 and Male students 8.7 respectively. The degree of freedom was 67 at a 0.05% significant level. t_{cal} was -2.24 and t_{crit} 1.99, rejected the null hypotheses because the decision rule criteria rule governing the rejection of the null hypotheses states that null hypotheses are rejected when $t_{cal} > t_{crit}$ which implies that Gender difference has a significant influence in Social Studies online test assessment.

Discussions

Based on the outcome of this study it revealed that Social Studies Students after being exposed to online classrooms and assessment

showed a high achievement score compared to students who participated in conventional teaching methods. This supports the view of Tschida and Sevier (2014), Alagmi and Eyadat (2016), and Bail and Liu (2018) asserted that online pedagogies and classrooms supported learners' engagement and cognition to understand and remember learning content effectively.

Based on the outcome of the research study after analyzing the research hypotheses on the significant difference between paper assessment and online assessment in the result was in favor of the online assessment. The mean difference between the control and experimental group showed that the control group obtained 16.35 and the experimental group obtained a score of 20.57 and standard deviation of 4.2 and 4.5 respectively. The t_{cal} was -4.146 indicating one-way tailed results with the t_{crit} at -3.204 since the calculated value was more than the tabulated value $t_{cal} > t_{crit}$, the null hypothesis was rejected. This agrees with the views of Bail & Liu, (2018), Alagmi and Eyadat (2016), and (Saavedra, 2020) who all agreed that learner-centered strategies and online classroom teaching methods motivate students to perform positively in various school subjects, especially Social Studies.

After analyzing the research hypotheses on the significant difference between male and female students in the experimental groups, the results revealed that the female students obtained a mean score of 19.78, and female students had a mean score of 21.89. The degree of freedom was 67 at 0.05% significant level. t_{cal} was -2.24 and t_{crit} 1.99, rejecting the null hypotheses. This result agrees with Manzoor, Sarwar, and Asim (2020) who observed the influence of M-Learning in Higher Education: Exploring the Gender-Based Faculty Achievement of Business Schools in Pakistan. The result of the study reveals no difference between the achievement of male and female faculty members with the inclusion of mobile learning by implementing the Google Class into their regular classes.

Conclusion

The effectiveness of online classrooms on the assessment of Social Studies should not be neglected; various studies have shown the impact and effectiveness of online classrooms in improving students' achievement and achievement at any learning institution. The teachers must be aware of the challenges and ways to utilize the tools and services of online classrooms, School administrators ought to create accessible mediums where online contents can be accessed, transmitted, sorted, and retrieved easily by anyone at any place and time. Future researchers and curriculum experts should create dynamic learning contents and syllabi which are interactive and can evaluate students' achievement effectively by accessing all learning domains of learners. Governmental institutions should encourage teacher unions to integrate to using more digital and current mediums of creating and sharing learning content to ensure accessibility of educational opportunities to various types of learners irrespective of socio-economic differences.

Recommendations

Based on the findings of the study it was recommended that school administrators should create available services for students to access online classrooms contents, teachers should engage in more professional development courses to have basic literacy knowledge on computer and online classroom services, curriculum experts should develop interactive online classroom contents that engage and motivates students to engage actively in the teaching and learning processes and also, students should be motivated to utilize online classrooms in tertiary institutions.

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