



EFFECT OF SOCIAL MEDIA ON STUDENTS' ACADEMIC PERFORMANCE IN SENIOR SECONDARY SCHOOL IN ONDO STATE

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Abstract

This study investigated the effect of social media on students' academic performance in senior secondary schools in Ondo State. The research type adopted in this study was a pre-test posttest quasi-experimental design. The sample population of 57 students were selected from secondary schools in the state using a simple random sampling technique and assigned into an experimental group and a control group. The control group were taught English language using a conventional teaching method while the experimental group students were exposed to the Social Media Learning Package (WhatsApp). English Language Achievement Test (ELAT) was used for data collection. The instrument reliability coefficient gave a value of 0.79. ELAT was administered to students as a pre-test and post-test. The students' pretest and post-test scores were analyzed using ANCOVA. The results revealed a significant main effect of treatment (WhatsApp) on the English language performance of SS1 students in secondary schools. However, there was no significant interaction effect of treatment and gender on the performance of SS1 students in English language. Also, there was no significant interaction effect of treatment and school location on the performance of SS1 students in English language. The study recommended that social media learning packages like WhatsApp should be introduced into the classroom to improve English language teaching-learning process.

Keywords: academic performance, gender, social media, secondary school, WhatsApp

Introduction

The trend of social media has been embraced by various organizations as a means of communication, and it has also been explored for its potential in education. These tools have increasingly gained popularity in the field of higher education (Chugh & Ruhi, 2018). According to Prestridge (2019), social media encompasses a broad range of platforms such as blogs, vlogs, Twitter, Instagram, as well as instant messaging apps like Facebook and WhatsApp. These platforms allow users to connect, interact, comment, and share without limitations of time and location. The potential of social networking sites (SNSs) as learning tools has exponentially increased in the current decade (Barrot, 2018). They are popular as tools to communicate, interact, socialize and share information among the masses in general and the youngsters in particular (Prestridge, 2019). Due to their popularity and usefulness, educators and researchers have investigated the potential of social media in educational settings.

WhatsApp have emerged as the most popular social networking site among the students, especially teenagers. The young generation has recognized WhatsApp as a tool to establish social presence and connection with others, support communicative competence, to measure the perception and attitude of the instructor and the learners in learning, and to promote collaborative learning (Feng et al., 2019; Jassim & Dzakiria, 2019; Abu, 2018; Menzies et al., 2017). Likewise, with more than 2 billion worldwide users (Statista, 2020), WhatsApp provides users with opportunities for calling, chatting and sending videos, audios, pdf files, pictures and documents (Rosenberg & Asterhan, 2018). WhatsApp have the potential to facilitate learners with a social presence, freedom of time and space and an opportunity to interact.

English is the lingua franca of the world, and its importance cannot be overstated. Mastery of the English language has become a crucial determinant of students' success in academic and professional pursuits.



Therefore, teaching and learning of the English language has become a top priority worldwide (Chen Hsieh et al., 2017). Moreover, the technological changes have transformed the learners' and instructors' profiles which have led researchers to seek new methods of teaching to accommodate the millennial's needs (Chuang et al., 2018). This shift from traditional to modern methods of teaching is important because learners often find it difficult, challenging and stressful to apply various skills of the English language in real-life situations (Hwang et al., 2017). Thus, active learning approaches are deemed best to cope with such challenges in learning English (Turan & Akdag-Cimen, 2020). So, the use of social media package as a mediating tool to teach and learn language is one of such approaches that promote active learning. WhatsApp and teaching and learning English are intertwined because academia and researchers have posited a positive correlation between WhatsApp and language learning.

From the recent results of Senior Secondary School Examination results, it was seen that the students' academic performance in the subject were not encouraging and this was due to the strict adherence of the teachers to the use of the lecture method of teaching. In a study by Hassan and Ahmed (2018), it was found that WhatsApp helped to improve the quality of students' written English. The study involved 60 undergraduate students who were required to use WhatsApp to communicate with their instructors and peers to complete assignments. The findings showed that the use of WhatsApp led to a significant improvement in the students' writing skills. Also, Jin (2018), found that WebChat, one of the social media apps was effective in enhancing students' English listening and speaking skills. The study involved college students who used WeChat to communicate with their instructors and peers to complete tasks. The results showed that the use of WeChat led to a significant improvement in the students' English listening and speaking skills.

The use of WhatsApp has been shown to be effective in enhancing the performance and competence of English language learners, while also reducing their anxiety levels according to the study by Ali and Bin-Hady (2019). However, the study also highlighted certain challenges associated with the use of social networking applications, such as poor internet connectivity and lack of commitment from participants. The participants also felt that group conversations added to their workload, which may have impacted their level of engagement. On the other hand, a study by Alshammari et al. (2017) found that WhatsApp had a positive impact on encouraging autonomous and peer learning, as well as repositioning instructors as facilitators rather than the sole source of knowledge. The study also noted that WhatsApp was effective in organizing learning communities, which provided opportunities for learners to interact and collaborate with one another. These findings suggest that the use of WhatsApp in language learning has the potential to support student-centered and collaborative learning approaches, which can help to enhance the effectiveness of English Language instruction.

Research has also shown that there are significant gender differences in students' performance in English language. Several studies have found that female students tend to perform better than their male counterparts in English language proficiency tests. For example, a study by Li (2019) involving 246 Chinese high school students found that female students outperformed male students in all aspects of English language proficiency, including reading, writing, listening, and speaking. The study also found that female students had higher levels of motivation and self-efficacy in learning English language compared to male students. These findings suggest that gender may play a significant role in students' performance in English language.



However, other studies have reported conflicting results. For instance, a study by Goni, Ali, and Bularafa (2015) involving 322 NCE students found that male students outperformed female students in English language proficiency tests. The study attributed this gender difference to cultural and societal factors that favor male students in accessing educational resources and opportunities. The study also noted that male students tend to be more confident and assertive in using the English language compared to female students. These findings highlight the complex interplay between gender, culture, socio-economic factors and school location/environment in shaping students' performance in English language.

School location has been identified as a factor which plays an important role in determining students' performance. Several studies have examined the relationship between school location and students' performance in English language. For instance, a study by Alordiah, Akpadaka, and Oviogbodu, (2015) involving 1900 school students in Nigeria found that students in urban schools outperformed those in rural schools in English language proficiency tests. The study attributed this difference to the availability of more educational resources, including qualified teachers, textbooks, and learning materials, in urban areas compared to rural areas. The study also noted that students in urban areas had greater exposure to the English language through media and other forms of communication. Elegbede (2020) discovered that students in suburban secondary schools performed better in English language proficiency tests than those in rural schools.

However, other studies have reported conflicting results. For instance, a study by Malik and Rizvi (2018) involving 516 10th grade students in Pakistan found no significant differences in English language proficiency between students in urban and rural areas. The study attributed this finding to the efforts of the Pakistani government to improve access to education and educational resources in rural areas. The study also noted that students in rural areas had greater motivation and determination to succeed in English language learning, which may have contributed to their level of proficiency.

Statement of the Problem

English language is a fundamental subject in the school curriculum, and proficiency in this subject is essential for success in academic and professional contexts. Given the importance of English language, it is crucial to explore new and innovative ways to improve students' performance in the subject. Social media learning packages offer a unique approach to language learning that leverages the power of social media to engage students and enhance their learning experience. However, the effectiveness of social media learning packages like WhatsApp in improving students' performance in English language has not been fully explored. Therefore, this study aims to investigate the effect of Social Media Learning Packages (WhatsApp) on students' academic performance in English language and to determine whether they can be an effective tool for improving English language learning outcomes. English language was selected for this study in this study due to its universal usage as medium of communication in secondary schools.

Research Hypothesis

The following research hypotheses were formulated to guide this study.

Ho1: There is no significant difference between the experimental group and the control group academic achievement in English language.

Ho2: There is no significant interaction effect of treatment and gender on senior secondary one students' academic performance in English language.



Ho3: There is no significant interaction effect of treatment and school location on senior secondary one students' academic performance in English language.

Methodology

The research design adopted for this study was pretest-posttest, control group quasi-experimental design. The experimental design allows the research manipulate the independent variable (WhatsApp) in order to determine its effects on the dependent variable (academic achievement). The population consisted of all secondary school students in Ondo West Local Government Area of Ondo State. Multi-stage sampling technique was used to select the participants for the study. First, simple random sampling techniques was used to select two secondary schools in the local government. Purposive method was used to select students in SS1 class because some of the students could not afford to sophisticated hand set. The selected two schools were randomly assigned to treatment and control group. In all, a total of fifty-seven (57) students were involved in the study. Two research instruments were used in this study. They were: (i) Social Media Learning Package (SMLP): The package was used to teach the experimental groups. (ii) English Language Achievement Test (ELAT): The Test instrument was employed to determine the level of performance of the students. The test instrument covered the contents of the selected topics in English language for this study. The test instrument consisted of the demographic section (gender and school type), and the test section. The test instrument contained 20 multiple choice English Language questions with four stem options ranging from A-D out of which only one correct option. The students were given 40 minutes to answer the questions. The test instrument was given to two expert in the department of English language, Adeyemi Federal University of Education for face and content validity. The test instrument was used for pre-test on the experimental and control groups to collect the pre-test scores. The same test instrument was rearranged and used to collect the post-test scores.

DATA COLLECTION: The students that were involved in the experimental and control groups were purposively selected from the selected classes in each of the schools. Students were made to understand that their participation in the research would not have any negative effect on their education, but that it would rather improve their academic performance and this made them to be free and happy to cooperate with the researcher without being forced. The experimental and the control groups were exposed to the same English Language Achievement Test (ELAT) and their scores were recorded as "pre-test scores" for each of the groups. The experimental groups were then taught with the use of the lesson notes, and the Social Media Learning Platform (SMLP), while control group was taught with the use of lesson note and conventional lecture method of teaching. The experiment lasted for two weeks with four hours of instructions per week across the treatment groups. SPSS was used to analyze the data gathered and ANCOVA was used to test the null hypotheses at 0.05 level of significant.

Results

Ho1: There is no significant main effect of treatments on SS1 students' academic performance in English Language.

Table 1: Analysis of Covariance (ANCOVA) of Senior Secondary Students' Performance by Treatment, Gender and Location

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	650.747 ^a	6	108.458	19.053	.000	.696
Intercept	502.766	1	502.766	88.322	.000	.639
Pre	9.081	1	9.081	1.595	.212	.031
Treatment	332.979	1	332.979	58.495	.000	.539
Gender	16.545	1	16.545	2.906	.094	.055
Location	.743	1	.743	.130	.719	.003
Gender * Treatment	3.343	1	3.343	.587	.447	.012
Location * Treatment	1.102	1	1.102	.194	.662	.004
Error	284.621	50	5.692			
Total	10413.000	57				
Corrected Total	935.368	56				

a. R Squared = .696 (Adjusted R Squared = .659)

Dependent Variable: Performance in English Language

Table 1 shows that there was significant main effect of treatments on SS1 students' academic performance in English Language ($F_{(1,50)} = 58.495$; $p < 0.05$, partial $\eta^2 = .539$). The treatment effect size is 53.9% (partial $\eta^2 \times 100$). This result means that there was significant increase in the post-performance mean scores of the SS1 students due to the treatments. Thus, the null hypothesis 1 was rejected. In order to determine the mean difference across the groups, the Estimated Marginal Means of the two treatment groups were carried out and the result is presented in Table 2 below.

Table 2: Estimated Marginal Means of Performance across the Groups

Variables	N	Mean	Std. Error
INTERCEPT			
Pretest (Pre-performance)	57	8.25	-
Posttest (Post-performance)	57	14.89	.45
TREATMENTS			
Social Media Package	25	15.76	.59
Conventional Method	32	10.42	.53

Table 2 reveals that the pre-performance mean score (covariates) of the SS1 in English language appeared as 8.25 while it became 14.89 after treatments when the effect of covariates has been statistically controlled. The table shows further that the students in social media group had the highest post-

performance mean score ($\bar{x} = 15.76$) than those exposed to conventional method of teaching ($\bar{x} = 10.42$). This result implies that social media is more potent for increasing SS1 students' performance in English language.

Ho2: There is no significant interaction effect of treatment and gender on SS1 students' academic performance in English language. Table 1 shows that there was no significant interaction effect of treatment and gender on SS1 students' academic performance in English language ($F_{(1,50)} = .587$; $p > .05$; partial $\eta^2 = .012$). The effect size is 1.2%. This means that treatments and gender did not jointly cause the difference in the post-performance mean score of SS1 students in English language. Hence, hypothesis 2 was not rejected.

Ho3: There is no significant interaction effect of treatment and location on SS1 students' academic performance in English language. Table 1 shows that there was no significant interaction effect of treatment and location on SS1 students' academic performance in Mathematics ($F_{(1,50)} = .194$; $p > .05$; partial $\eta^2 = .004$). The effect size is 0.4%. This means that the joint interaction of treatments and school location did not jointly cause the difference in the post-performance mean score of SS1 students in English language. Hence, hypothesis 3 was not rejected.

Discussion of Findings

The finding of this study revealed that there is significant main effect of treatments on SS1 students' performance in English language. This could be because students get the most out of class time by spending it on practical application, not on inactive lecture. From the findings of this study, it is clear that use of social media aided instruction improves students' achievement in English language, more than use of conventional teaching methods. The findings of the present study are also in agreement with (Turan & Akdag-Cimen, 2020; Jassim, & Dzakiria, 2019) studies that investigated the effects of introduction of media related instruction compared to the conventional method of teaching on senior secondary school students' achievement and the results revealed that social media aided instruction improved students' academic achievement in English language learning. In addition, the findings of this study concur with Olakanmi, Gambari, Gdodi and Abalaka (2016) findings which revealed that students who were taught chemistry with social media assisted instruction had higher extrinsic and intrinsic motivation as well as achievement than those in conventional teaching methods.

It is also revealed from this study that there is no significant difference between male and female students' academic achievement taught with computer assisted instructional package. This result can be interpreted that students whether males or females are similar in using modern technological methods because of the availability of modern technological devices as a result of the huge scientific and technological development and the easiness to access such modern technologies. Social media was equally effective for male and female students as it enhances their performance in English Language. It enhanced both male and female students' performance. This finding is consistent with the findings of Li (2019), Goni, Ali, and Bularafa (2015) who discovered that gender had no significant effect on the performance of students who were taught using cooperative instruction.

Furthermore, the study revealed that there is no significant interaction effect of treatment and location on senior secondary students' performance in English. This could be as a result that both students from urban and rural primary schools prepared adequately ahead for the test. This finding is corroborated by Elegbede (2022) who found out that students' problems that are strongly associated with poor



achievement and that location and school type do not affect the negative relationship between pupils' problem and academic achievement.

Conclusion

The results of this study indicated that the use of social media learning platform increased students' performance in English language. There was no significant difference between male and female students exposed to SMLP. Furthermore, utilizing a self-instructional computer-based package for teaching social studies has the potential to enhance the effectiveness and engagement of learning. Notably, the impact of this approach is not influenced by gender, as both male and female students responded similarly to the instructional package. Therefore, the platform is considered gender-friendly, and it has an equivalent effect on both genders. Also, school location has no interaction effect on the social media learning package being used.

Recommendation

1. Instructors who are willing to see the potential of social media tools, should use them as additional tools to augment their traditional teaching method since no one can deny the significance of face-to-face learning.
2. Moreover, to get maximum benefits of social media integration in learning of English language, learners' needs analysis is necessary before they are engaged in learning through any social media app. Since social media requires the use of technology, the instructors need to ensure that both the teacher and the learner have access to the technology.
3. From the results of the finding, it was also recommended that Senior Secondary School students should be taught English Language by making use of WhatsApp

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