

Effectiveness of Facebook-Integrated Instructional Method in Improving Learners' English Reading Proficiency

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Abstract

Facebook is a widely used social media and its integration in the context of English language teaching (ELT) might be fruitful in this virtual world. Therefore, this experimental study was carried out with the aim of investigating its effectiveness in improving learners' reading proficiency. The study consisted of sixty participants from a secondary level government school of Nepal. They were randomly assigned into experimental and control group based on their pre-test scores ensuring that they had similar reading proficiency level. The instrument of pre-test was administered to the sampled participants before intervention. Facebook-integrated instructional method was used for instructing experimental group whereas traditional instructional method for control group. Post-test was administered to both groups after intervention. Data obtained from pre-test and post-test were analyzed using descriptive and inferential statistics. The result revealed the positive impact of Facebook in improving reading proficiency because experimental group ($M = 2.433$, $SD = 2.38$) performed better than control group ($M = .233$, $SD = 2.19$) with significant difference $t(58) = -3.71$, $p < .001$. Therefore, pedagogical implication was made for its integration in ELT class to enhance reading proficiency.

Keywords: Facebook-Integrated Class, Elements of Reading, Reading Proficiency

Introduction

After the world's entry into digital technology, teachers in language class are showing their interest in integrating technologies because researchers such as Abilasha and Ilankumaran (2016), Alkamel and Chouthaiwale (2018), Ammanni and Aparanjani (2016), Ntongieh (2016), Parvin and Salam (2015) have already shown the effectiveness of information, communication and technology (ICT) tools in improving language learning. When Web 2.0 was introduced in the field of ICT, its services such as social networking sites have been potential e-learning tool in the context of ELT (see, Allam & Elyas, 2016; Alnujaidi, 2017; Al-Shehri, 2011; McCarty, 2010; Trajtemberg & Yiakoumetti, 2011). In such scenario, the researcher has aimed at carrying out this study in order to find out the effectiveness of social media of Facebook in improving learners' English reading proficiency.

Statement of the Problem

Aydin (2012) states that there is no substantial body of literature carried out on the use of Facebook in ELT context. However, researchers such as Budiardi and Anggraeni (2013), Dogoriti and Pange (2014), Faryadi (2017), Monica-Ariana and Anamaria-Mirabela (2014), Özdemir (2017), Ping and Maniam (2015), and Wichadee (2013) have investigated its potentiality in the context of ELT. But, no research has been carried out yet to investigate its effect on the improvement English reading proficiency. In this context, this research will fill the gap of existing literature.

Reading Proficiency

Reading is one of the receptive skills of language. It is a process of constructing meaning from the written text (Sharma, 2010). Reading proficiency, therefore, refers to learners' ability to interpret meaning from the written text. According to Connors-Tadros (2014), meaning from the reading text can be interpreted through the interaction among existing knowledge of learner, information suggested by the text and context of reading situation. In this sense, the mechanisms of logical inferences and accessing background information are necessary in the process of interpreting meaning because combination of such mechanism supports a reader to have literal, interpretive and critical comprehension of the reading text (English, 2011). According to her, literal comprehension is the surface meaning of the text; interpretive comprehension suggests readers' ability to identify the relationship between idea and drawing conclusion; and critical comprehension is the readers' ability to assess the accuracy of textual information differentiating opinions and facts. To enhance such ability, Harmer (2006) suggests to improve the reading skills such as scanning, skimming and reading for detail comprehension. Readers use scanning for particular information; skimming for general information; and detail comprehension for understanding main and supportive idea about the reading text.

Integration of Facebook in Teaching Reading

Facebook is a social media. It helps its users to be in a virtual community with the access of internet. An individual above 13 years old can be a registered member of this media reaching at its official site of www.facebook.com. After being a member, the individual can search for his or her friends or relatives and send them a request. After accepting the request, the individual can exchange message chatting in the chat box. They can also communicate through audio or video call. The individual can do a number of activities such as uploading and sharing photos or video, posting and commenting to the added texts.

It consists of different features and applications such as photos, page, groups, videos, chat, and wall. Because of these features and applications, an ELT teacher can integrate it for teaching language. In this particular context of teaching reading, it may be a useful e-learning tool. Before the practice of teaching,

teacher needs to create a group and learners are to be invited to join it. The teacher needs to be the administrator of the group in order to avoid learners' unnecessary activities. Then, the teacher can upload reading texts followed by reading activities to be performed. Learners are to be encouraged to perform activities by posting their answer, reviewing and commenting to the answer posted by their peers. Teacher can facilitate by encouraging them for their active participation in performing activities.

Studies on the Use of Facebook in ELT Context

Facebook was officially launched by Mark Zuckerberg in 2004. But, researchers seem to have contributed in search of its potentiality in ELT context from the early decade of 2020s. For example, Al-Smadi (2013) examined the effect of this social media on the improvement of vocabulary knowledge. The result showed the positive impact. But, the quasi experimental study carried out by Monica-Ariana and Anamaria-Mirabela (2014) in context of Romania didn't support the finding of Al-Smadi (2013) because significant improvement was not noticed in the performance of experimental group.

The research carried out by Ping and Maniam (2015) in context of Malaysia revealed its positive impact on the improvement of learners' writing performance. This finding is supported by Montoneri (2015) because the study carried out in context of Taiwan showed the consistent result with the study of Ping and Maniam (2015). However, both studies consisted of small sample size.

Similarly, the research carried out by Faryadi (2017) in the same context presents the evidence of its positive effect on the enhancement of comprehension skill along with satisfaction and motivation level in learning in English. Although the study consisted of considerable sample size, the study lacked explicit explanation of research design.

The study carried in context of Turkey by Özdemir (2017) examined the effect of this social media on the improvement of intercultural communication skill of learners. The study revealed the positive impact. The researcher has used multiple tools and mixed method approach to make the research more valid. This study supports the previous studies carried out by Chen (2011), Dogoriti and Pange (2014), and Omar, Embi, and Yunus (2012).

Issues in the Integration of Facebook in ELT Context

Studies have shown the potentiality of this social media in ELT context. However, there are different issues regarding its application in teaching English. For example, it is an e-learning tool and therefore teachers and learners both should have sound knowledge of using it. There is another issue related to ethics that learners need to be above thirteen years old to be the members of this social media. In such

case, it can't be applied in teaching language to the learners of below this age group. It requires devices such as mobile or computer. All learners may not have such devices for virtual learning. Further, electricity and internet access is must to use it. Learners from the poor socio-economic background face difficulties in affording expenses for such things. If all learners do not get the advantage of it, there might be a danger of creating class in the class.

Methodology

The Objective of the Study

The objective of the study was:

- To find out the effectiveness of Facebook-integrated instructional method in improving learners' English reading proficiency.

Research Question

The following research question was formulated in order to facilitate the objective:

- To what extent does Facebook-integrated instructional method improve learners' English reading proficiency?

Hypothesis

The researcher formulated a hypothesis based on studies carried out by Budiardi and Anggraeni (2013), Dogoriti and Pange (2014), Faryadi (2017), Özdemir (2017), Ping and Maniam (2015), and Wichadee (2013). The null and alternative hypotheses have been mentioned below:

H_o : There is no significant difference between traditional and Facebook-integrated instructional method in improving learners' English reading proficiency.

H_a : There is significant difference between traditional and Facebook-integrated instructional method in improving learners' English reading proficiency.

Participants

The researcher used a rule of thumb suggested by Borg and Gall (1996) for the selection of research participants. 60 participants studying in grade eleven of a government school located in Bara district, Nepal were randomly selected.

Formation of Equivalent Groups

The researcher grouped the sampled participants randomly into experimental and control groups based on pre-test scores they had obtained. For this, the researcher listed the participants with their marks in an ascending order and made 30 pairs ensuring that each pair had similar marks. Then, the researcher selected a participant from each pairs for experimental group and other for control group with random assignment.

Ethical Consideration

The researcher has entirely taken his moral responsibility in conducting this study. For example, authors have been credited for the idea cited in the text. The researcher also received informed consent from the authority of the institution and participants before conducting the study. Similarly, the researcher used appropriate statistics while analyzing data.

Treatment

The researcher created a Facebook group and invited participants from experimental groups to join it. After making them the members of the group, the researcher played a role of an instructor to instruct them through Facebook. While instructing, the researcher uploaded content based reading materials followed by activities to be performed for enhancing reading proficiency. Activities were mainly based on vocabulary exercises, micro reading skills such as scanning, skimming, reading for main idea, and reading for supportive idea. The researcher encouraged participants to post their answer, review and comment to the answer posted by their peers. For example, the Figure 1 shows a sample of performing reading activities. The name and profile picture of the participant students have been made anonymous due to ethics.



Figure 1. A Sample of Reading Activity Performed in Facebook Group.

The researcher instructed the control group through conventional method.

A month period was allocated for conducting instructional activities.

Control of Extraneous Variables

The study comprises of two variables viz. independent and dependent variables. Instructional methods such teaching through Facebook and conventional method are independent variables while learners' reading proficiency is dependent variables. But, different variables such variations in the instructional materials, time frame and instructors could affect the magnitude of relationship between dependent and independent variables. Therefore, same instructional materials were introduced to both groups following the same time frame to control extraneous variables. Similarly, different instructors possess different linguistic competency and it could influence the magnitude of two variables. Therefore, the researcher himself instructed both groups as an instructor. However, an ELT teacher of secondary level was assigned a job of checking their answer sheet in order to minimize the bias.

Instrument: The researcher used following instruments to collect data:

Pre-Test

The researcher administered pre-test to the participants before introducing intervention to understand their current level of reading proficiency.

Post-Test

After introducing intervention programme for a month period, the researcher administered post-test to both groups for examining whether the implemented instructional method could improve learners' reading proficiency.

Validity and Reliability

The researcher consulted a subject specialist to ensure the validity of the instrument which could cover the elements of reading skill. The instrument was used based on suggestions given by the specialist.

The researcher adopted a test-retest method for assessing the reliability of the instrument. For this, the researcher selected 15 students from the same level but they were not included in the main study. A reading test was administered to them and the same test was used for the same group after two weeks. But, no feedback was given to them. The researcher used coefficient correlation to analyze the test scores obtained in test and retest. Significant correlation ($r = .731$) was found between these two test scores at .01 level ($p < .001$).

Approach of Data Analysis

Test scores obtained by experimental and control group were compared by using mean and standard deviation of descriptive statistics. But, hypothesis was tested by using inferential i.e. parametric test such

as independent samples t-test and paired samples t-test at 95% confidence level. Before the implementation of this test, distribution of normality and homogeneity of sample variance were assessed. The z-values of skewness and kurtosis of both groups in their pre and post-test were found between ± 1.96 which shows that data are approximately normally distributed. Similarly, data were noticed homogeneous because Levene's test revealed that significant value of these groups in pre-test ($p = .282$) and post-test ($p = .429$) is above .05 ($p > .05$).

Result

Table 1 displays the comparison between experimental and control groups in terms of their pre-test scores of reading proficiency. The result of independent samples t-test shows that the level of reading proficiency of experimental group ($M = 4.26$, $SD = 1.91$) and control group ($M = 4.26$, $SD = 1.65$) is not significant difference $t(58) = .000$, $p = 1.00$ ($p > 0.05$). It shows that both groups were of possessing similar level of reading proficiency and the improvement they perform could be attributed to implemented instructional method.

Table 1

Two Groups' Pre-Test Scores related to Reading Skills

	Groups						
	Experimental (n=30)		Control (n=30)				
Elements	M	SD	M	SD	<i>t</i>	<i>df</i>	<i>Sig.</i>
Pre-test Score	4.26	1.91	4.26	1.65	.000	58	1.00

Table 2 displays the comparison between experimental and control group in terms of each micro skills of reading. The result shows that these two groups are not significantly different in terms of any of the elements of reading skill because p-value is above .05 in each elements of reading.

Table 2

Comparison of Pre-Test Score in Terms of Different Reading Skills

	Groups						
	Experimental (n=30)		Control (n=30)				
Elements	M	SD	M	SD	<i>t</i>	<i>df</i>	<i>Sig.</i>
Vocabulary Knowledge	1.96	.999	1.866	1.04	-.379	58	.706
Scanning	1.10	.803	1.166	.791	.324	58	.747
Skimming	.200	.484	.266	.691	.433	58	.667

Understanding Main Idea	.566	.626	.566	.773	.000	58	1.00
Understanding Supportive Idea	.433	.626	.400	.674	-.198	58	.843

Table 3 displays the comparison between pre and post-test performance of experimental and control group in terms of reading proficiency. The result of paired samples t-test shows that performance of experimental group in post-test ($M = 6.70$, $SD = 2.36$) is better than pre-test ($M = 4.26$, $SD = 1.91$) with significant different $t(29) = -5.581$, $p < .001$. But, such improvement was not seen in case of control group because their performance in post-test ($M = 4.50$, $SD = 2.04$) in comparison to pre-test ($M = 4.26$, $SD = 1.65$) is not significant difference $t(29) = -.583$, $p = .564$.

Table 3

Two Groups' Pre and Post Test Scores related to Reading Skills

	Tests						
	Pre		Post				
Groups	M	SD	M	SD	<i>t</i>	<i>df</i>	<i>Sig.</i>
Experimental	4.26	1.91	6.70	2.36	-5.581	29	.000
Control	4.26	1.65	4.50	2.04	-.583	29	.564

Table 4 displays the comparison of pre and post-test performance of experimental and control group in terms of each elements of reading skill. Range in the average scores of experimental group in post-test is .566 to 2.73 while in pre-test was .200 to 1.96. This group performed significantly better in post-test in relation to each reading elements ($p < .05$) except the element of understanding supportive idea ($p = .103$).

Similarly, range in the average scores of control group in post-test is .166 to 2.23 while in the pre-test was .266 to 1.86. But, this group couldn't perform significantly better in any of the elements of reading skill because p-value in each element is greater than .05.

Table 4

Comparison of the Two Groups' Pre and Post Test Scores related to Reading Skills

		Tests						
		Pre		Post				
Elements	Groups	M	SD	M	SD	<i>t</i>	<i>df</i>	<i>Sig.</i>
Vocabulary Knowledge	Experimental	1.96	.999	2.73	.907	-3.69	29	.001
	Control	1.86	1.04	2.23	.935	-1.88	29	.070
Scanning	Experimental	1.10	.803	1.70	.876	-3.39	29	.002

	Control	1.16	.791	.900	.711	1.54	29	.133
Skimming	Experimental	.200	.484	.566	.773	-2.62	29	.014
	Control	.266	.691	.166	.461	.619	29	.541
Understanding Main Idea	Experimental	.566	.626	1.00	.982	-2.14	29	.040
	Control	.566	.773	.600	.855	-.197	29	.845
Understanding Supportive Idea	Experimental	.433	.626	.700	.595	-1.68	29	.103
	Control	.400	.674	.600	.855	-1.29	29	.206

Table 5 displays the comparison between two groups in terms of their achievement scores. It was calculated subtracting their scores obtained in pre-test from that of post-test. The result shows that experimental group performed better than control group with significant difference in the reading elements of scanning and skimming ($p < .05$). But, such significant improvement was not seen in the rest of reading elements ($p > .05$).

Table 5

Comparison of Achievement Score of Reading Skills

	Groups						
	Experimental (n=30)		Control (n=30)				
Elements	M	SD	M	SD	<i>t</i>	<i>df</i>	<i>Sig.</i>
Vocabulary Knowledge	.766	1.13	.366	1.06	-1.40	58	.165
Scanning	.600	.968	-.266	.944	-3.50	58	.001
Skimming	.366	.764	-.100	.884	-2.18	58	.033
Understanding Main Idea	.433	1.10	.033	.927	-1.51	58	.134
Understanding Supportive Idea	.266	.868	.200	.846	-.301	58	.764

Table 6 displays the comparison between two groups in relation to overall performance of reading proficiency. It was calculated by adding achievement scores gained in all elements of reading skill. The result shows that experimental group ($M = 2.433$, $SD = 2.38$) performed better than control group ($M = .233$, $SD = 2.19$) in the improvement of reading skill with significant difference $t(58) = -3.71$, $p < .001$ which doesn't support to accept the null hypothesis. Cohen's d is 0.960 which shows that effect size is substantive. It presents an evidence that Facebook integrated instructional method is much more effective than traditional method of teaching in improving learners' reading proficiency.

Table 6

Overall Comparison of Reading Skills

	Groups						
	Experimental (n=30)		Control (n=30)				
Elements	M	SD	M	SD	<i>t</i>	<i>df</i>	<i>Sig.</i>
Reading Achievement Score	2.43	2.38	.233	2.19	-3.71	58	.000

Discussion

This study was carried out in order to find out the effectiveness of Facebook-integrated instructional method in improving learners' reading proficiency in English. The result showed the positive impact of this social media in enhancing reading proficiency because experimental group performed better than control group in post-test with significant difference. The finding of the study is inconsistent with the study carried out by Monica-Ariana and Anamaria-Mirabela (2014). However, the study supports the studies carried out by Al-Smadi (2013), Chen (2011), Dogoriti and Pange (2014), Faryadi (2017), Montoneri (2015), Omar, Embi, and Yunus (2012), Özdemir (2017), and Ping and Maniam (2015) because the study provides an evidence of potentiality of this social media in enhancing learners' reading proficiency. In this sense, this might be an alternative instructional method of teaching reading skill.

Limitations of the Study

The study is not free from its drawbacks because the study comprises of small sample size. The researcher strived for controlling extraneous variables throughout the study. However, other factors might have affected the study. The intervention was introduced only for a short period due to constraint of time frame. Further, focus was given only on literal comprehension of reading proficiency. There might be threat to its external validity because the researcher could not examine its effect beyond the study. However, consistent result with previous research supports for its generalization.

Direction for Future Research

The study focused on the investigation of effectiveness of Facebook in promoting reading proficiency of secondary level learners. Therefore, future research can be carried out to investigate its effectiveness in promoting other language skills and aspects. Its effectiveness can also be examined among the learners of other level. Further, the study was confined to enhance literal comprehension of reading skill. Future research can be carried out to examine its effect on the improvement of interpretive and critical comprehension of reading skill.

Conclusion

This experimental study aimed at investigating the impact of Facebook-integrated instructional method on the improvement of learners' reading proficiency. The result revealed its effectiveness because experimental group outperformed its counterpart. The finding is consistent with the previous research. Therefore, this study gives an insight to ELT practitioners to implement it because this instructional method might be an alternative instructional method to enhance reading proficiency of learners who are bringing up in the virtual world.

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