



RESEARCH PAPER

Impact of Online Language Games on teaching of Single and Double Prepositions through Primary Level Students of Lahore

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ABSTRACT

This study is aimed at finding the impact of online games on teaching single and double preposition at primary level students to find potential evidence if the use of preposition gets improved in the students or not. The nature of the study was quantitative. Quasi-experimental research design was used for the study. This study involved only one experimental group. Pre-test Post-test were conducted to determine improvement of in learning of single and double prepositions after the intervention of online language games were introduced. Achievement test consisted of multiple-choice questions. Paired t-test was used to evaluate the significance of the difference in the outcome of experimental group. Result of this study suggested that online language games lay a significant impact on learning of double and single preposition by the primary level students. Results also further reflected that although both the genders showed improvement in their learning of single and double preposition after being taught via online language games but female students produced more significant results as compared to their male counterparts.

Keywords: Internet Online Games, Prepositions, Primary Level Students

Introduction

Online games have been used to enhance the proficiency of language learners to the worldwide. Apart from laying positive impact on general language proficiency of second language learners, online games have been helpful in improving the correct use of prepositions in the sentences by second language learners (Jafarinejad & Shahrokhi, 2016).

Prepositions are the words that used in the sentences for identification of the location to the thing and it belong to the closed word class and specify the relation between words (e.g., the remote is under the sofa). Apart from that Prepositions are classified as closed words. They link two sentences together and demonstrate the specific link between them (for instance, He was quite appreciative of her support) (Greenbaum & Quirk, 1990).

As preposition have its types like preposition for time, place, manner, frequency etc. in English many prepositions are monosyllabic such as out, an, by, of and two-syllabic such as onto, up to, without etc. These are taken as single and double prepositions.

The effectiveness of learning preposition through internet online games is due to the fact that there are number of preposition games according to the level of students. Games are more convenient way to understand prepositions because it involves student focus and they get interested and work more efficiently.

The first benefit is that games can motivate and pique kids' interests. Sometimes, students may get agitated due to a difficult to comprehend grammatical instruction. But students may actually learn while they are playing and they are willing to learn more if

teachers know how to use games to teach grammar. The other benefits of games include good exercise for enhancing grammar, vocabulary, pronunciation, and the four language skills. Through games students will be more likely to discuss ideas, ask questions, and come up with original ways to utilize English to accomplish the task. As a result, the competition in games offers students a chance to naturally collaborate and interact in English with one another (Isnaini et al, 2019). Wright et al. (2006) further claimed that games support and foster many students' interest in learning language.

Literature Review

Preposition is a word or group of words used before a noun, pronoun, or noun phrase to show the location, time, place or relation of words. Generally, there are seven types of prepositions and we are only working on two types which are simple and double prepositions. Prepositions are categorized in closed word class. Preposition is a word that helps in connecting a noun to other words and show relationship (Collins, 1998). It connects words in a sentence and show a relationship between them (Greenbaum & Quirk, 1990). Prepositions are classified on the basis of form, meaning and function. It can be simple like one-word preposition or complex like two- word, three- word or more (Murcia & Larsen-Freeman, 1999).

The use of online games in teaching preposition of place (simple) shows that it is an effective and beneficial way for the EFL students (Irawan, 2020). Treasure hunt game results show that use of game was effective for teaching preposition and teachers should include it as a resource for teaching preposition (Isnaini, Apprihaswati & Husin, 2019). The results of another research suggested that using internet online game is more effective than other methods of teaching of prepositions on the Iranian learners (Jafarinejad & Shahrokhi, 2016)

However, there are contradictory results available as well which suggest that using games for teaching preposition is not very effective. One such study, related to teaching prepositions through Bingo game, suggest that using games is helpful in improving learning of prepositions but due to lack of vocabulary the participants faced difficulties in finding and understanding of meaning. The results showed that although games are a useful means for teaching preposition however its optimal effectiveness cannot be achieved unless second language learners have proper knowledge of vocabulary (Rabiatul Adawiyah, 2015).

This very contradictory nature of results on the impact of games on the learning of preposition provided grounds for the current research. But unlike aforementioned research, this research focused on impact of online games in memorization, retrieval and reproduction of preposition as human race has gone digital and it is indispensable to include digital learning resources now. Digital resources are now part and parcel of learning cycle as the theoretical framework 'Connectivism' of this research suggest which will be dealt in slight detail in the next section.

Theoretical Framework

Theoretical underpinning of this research incepted from "Theory of Connectivism." 'Connectivism' was first introduced by George Siemens and Stephen Downes in 2005. According to connectivism there is a relation between learners, learning, and technology. It's a new learning theory that says learners must combine their thoughts with theories and general information and use them in a manner most efficient. This theory furthermore takes technology as a major part of learning and considers it essential for learning. In this research 'Connectivism' has been used as a foundation to try to understand how effective can be the use of online games in learning of prepositions.

The current study is also an attempt to understand how effective can be digital online games in learning of preposition to the primary level English as second language learners of Lahore. During literature review a research gap was identified that eminent researches

focused on prepositions of place and time but single and double prepositions is yet an under-researched area. Apart from the above-mentioned gap, it has also been identified that previous researches did not focus much to identify difference in learning of preposition through online games on the basis of gender. The current research is an attempt to fill the stated research gap.

Hypotheses

Null hypotheses for this research were as follows:

H₀₁: Using online games does not have any significant impact on the learning of the prepositions among primary level ESL learners.

H₀₂: Using online games does not make any significant difference on the learning of the prepositions among male and female primary level ESL learners.

Material and Methods

This research is quantitative in its very nature. Quasi-Experimental design was used for this research. Rationale for selecting quasi-experimental design was due to the fact that non-random sampling method was used. Achievement test was used as instrument for data collection. Pre-test, post-test was employed for collecting data from experimental group. This research was carried out in 3 weeks and two academic sessions held per week. Each session was of 40 minutes. This study was delimited to a private school in Lahore because of limited resources. School was selected through purposive sampling and only that school was selected which was having ICT lab and giving homework in online format. The sample of the study was students of grade 4th (age ranging between 8 to 10 years). Students of both genders were inducted as participants of the study. The reason for selecting particular students was that they were from a private which start giving homework in digital format and exposes the students to ICT from grade three but that selected school starts teaching preposition from grade four that is why grade four was selected. Students were provided with video games having double and single prepositions. Different online games were used for teaching students.

Quantitative data was collected from primary level students through pretest and posttest. Experimental group was taught single and double prepositions through online games. A paired t-test was conducted for evaluating the difference in the achievement of the primary school ESL learners furthermore independent t-test was used in assessing the statistical difference of performance in primary school ESL male and female learners. The pretest and posttest of experimental group consisted of 10 MCQs each test.

Different websites were used for teaching prepositions. The website includes "Preposition Maze", "Learn prepositions" and some others. The websites used animations to facilitate the students with different proficiency levels.

For the first phase of the study, whole class was taken as experimental group to evaluate impact of online games on learning of prepositions. For the second phase the students were divided into two groups of male learners and female learners to assess if male and female ESL learners learn prepositions differently when they are taught through online games. The pretest was administrated at the start of the study, posttest was conducted at the end of the experiment. Online games contained different tasks including identifying the prepositions in the sentences and matching sentences with correct prepositions. At the end of sessions, students took test and data was recorded for statistical analysis. SPSS was used to analyze the data.

Results and Discussion

Statistical Analysis

To answer the first research question referring to the significant difference between pretest and posttest of experimental group, two tests were conducted with experimental group. The descriptive statistics of pretest and posttest are presented in table 1.

Table 1
Descriptive statistics of tests

	Mean	N	Std. Deviation	Std. Error Mean
pretest of experimental group	3.6000	40	1.42984	.45216
Posttest of experimental group	7.9000	40	1.19722	.37859

In experimental group N=40, mean score of Pretest of the experimental group 3.6000 whereas Standard Deviation is 1.42984 and the Standard Error Mean value is .45216.

In experimental group N=40, Mean score of posttest of the experimental group is 7.9000 whereas Standard Deviation is 1.19722 and the Standard Error Mean is .37859

Table 02
Paired t-test

	Mean	Std. Deviation	Std. Mean	95% Confidence of the Interval Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
				Paired t-test				
Pair 1 pretest of experimental group - posttest of experimental group	-4.30000	1.88856	-0.59722	-5.65100	-2.94900	-7.200	39	0.000

In Pretest of Experimental Group -Posttest of Experimental group Mean value is -4.30000 Standard Deviation value for both is 1.88856 whereas the Standard Error Mean is .59772.

Furthermore, Confident interval of Pretest - Posttest the Lower value is -5.65100 whereas the Upper value is -2.94900

The t value for this is -7.200, df value is 39 whereas the Sig.(2-tailed) value is .000 on this basis the Null Hypothesis is Rejected

According to the table the mean of posttest is higher than pretest and the standard deviation is also different. The significant value is 0.000 thus null hypothesis is rejected which show that online games lay significant impact on immediate learning of prepositions.

Table 03
Descriptive statistics of genders

Gender of Participants	N	Mean	Std. Deviation	Std. Error Mean
Delayed posttest of experimental group	M	15	5.0000	1.00000
	F	15	8.4000	1.51658

In posttest for Male Gender of Participants N=15, mean value is 5.0000, Standard Deviation of male group is 1.00000, whereas the Standard Error Mean value is .44721

In posttest for Female Gender of Participants N=15, Mean value is 8.4000, Standard Deviation is 1.51658 whereas the Standard Error Mean value is .67823

In order to answer the second research question and evaluate gender-based differences in learning of preposition taught via online games independent t-test was conducted, where it was turned out that the mean value of male and female students is different.

Table 04
Difference in Achievement based on gender

		Levine's Test for Equality of variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error difference	95%confidence Interval of the Difference	
									Lower	Upper
Gender- based posttest	Equal variances assumed			-4.185	14	0.003	-3.40000	0.81240	-5.27341	-1.52659
	Equal variances not assumed	0.549	0.480	-4.185	14	0.004	-3.40000	0.81240	-5.32524	-1.47476

In this the value of F for Experimental group is .549, Sig value is .480, t value for this t- 4.185 and the df value is 14 whereas the Sig (2tailed) value is .003. The Mean difference value is -3.40000, standard error difference is .81240 and Standard and in confidence interval of the difference the lower value is -5.27341 and upper value for this is 1.52659. In this the value of t for experimental group is -4.185 the df value is 6.925 the sig 2 tailed value is .004. In this the value of t for experimental group is -4.185 the df value is 6.925 the sig 2 tailed value is .004. The mean difference value is -3.40000 the standard error difference is .81240 whereas in the confidence interval of the difference the lower value for this -5.32524 and the upper value for this is -1.47476. The mean difference value is -3.40000 the standard error difference is .81240 whereas in the confidence interval of the difference the lower value for this -5.32524 and the upper value for this is -1.47476. For both the genders significance value is below 0.05 but it was observed that for female group significance value was even smaller, it was 0.003 as compared to significance value of male group which was 0.04. This indicated that impact of online games laid significant impact on the learning of preposition of both male and female primary school ESL learners but the same impact was slightly more significant on female ESL learners as compared to their male counterparts.

The main purpose of this study was to explore the effect of teaching prepositions in improving the learning prepositions of the primary ESL learners. This research has two objectives, firstly it investigated the effectiveness of using internet online games on the learning of the simple and double prepositions among primary level ESL learners and secondly this study tried to gauge the effects of online games on learning prepositions among the male and female primary learners. The result of this study suggest that online games laid significant impact on learning of prepositions by primary level ESL learners. The results also suggest that both male and female primary ESL learners show significant learning outcomes of prepositions when they were taught via online games, but female ESL learners produced slightly more significant outcomes as compared to their male counterparts.

The result of this research is in line with the results of a study conducted by Wright in 2006 which stated that treasure hunt game is one of the helpful in improving students' learning of prepositions, and it helps them to understand how to use preposition of place when describing things.

Thus, findings of this study suggest that online games significantly impact the learning of students and significantly increase their use of correct preposition. This research explored that females were slightly better in their learning outcomes of preposition as compared to their male counterparts, but reason for this was not explored as it was not focus of the study.

Conclusions

It is stated from analysis of quantitative data that internet online games are useful in improving of prepositions learning of preposition of the primary level ESL learners. There is a mild gender-wise improvement in learning of prepositions in female primary ESL learners as compared to male primary ESL learners when they both were taught through internet online games. The female learners produced slightly more significant results as compared to male learners.

Recommendations

It is recommended that teachers must try to go deep in the difference of the prepositions according to their type and roles. It is further recommended that ESL teachers must try to incorporate online games in the language classrooms while teaching prepositions as these online games lay significant impact on learning of preposition, because these games provide them with visual cues of to understand how specific prepositions work in a specific context, which facilitates memorization, retrieval and reproduction of the preposition in real-life language usage.

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