Research Article

An Experimental Study on Learner Centric Approach Using Mobile Technologies with respect to Principal Parts of Verb

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Abstract: In the present decade, technology has become an essential and inevitable part of English language teaching (ELT).This research study intends to examine the predominant role of the Android App in enabling the teacher trainees to learn English grammar effectively. The major reason for choosing this area is that grammar is universal and it does not differ from person to person. Learning the structure of a language is paramount to speak and write it effectively and accurately. The present work is an attempt to gauge the tool while it teaches English grammar, especially principal parts of verb. Naturally, the study is an experimental one comprising a pilot study, a pre-test, teaching intervention and a post-test. Further, it involves control and experimental group settings. A questionnaire is used as a research tool and administered in the process of data collection. This study investigates the errors in the students' responses in the pre-test which also served as diagnostic test. Judgmental sampling is adopted as the premium sampling method. Profile of the study area is taken from Chennai district where 60 teacher trainees are tested in the field. They are considered as the representative samples of the study. After classification and tabulation of the errors, the investigator then goes on to provide pedagogical intervention by combining the Cognitive Code Method and the Mobile Assisted Language Learning (MALL). Teaching of grammar is assisted by Android application. Eventually, the effect of the teaching intervention and difference in performance between the control and the experimental group are assessed in the post-test which served as achievement test. According to the findings of the study, the customized Android App has served as an effective pedagogical tool to improve the grammar skills of the teacher trainees in Chennai district

Keywords: Android application, Diagnostic Test, ELT, Error Analysis, Experimental Study, Judgmental Sampling, MALL

1. Introduction

For any language, grammar is an essential and inevitable part of the learning process. Grammar is one of the elements of language. After learning the alphabet and some basic words the learner solely depends on the structure of the language, linguistically called syntax of the language. Moreover accuracy can be attained only through learning grammar and practicing structural patterns. Grammar is an inevitable requirement to enhance communication skills. As a job seeker in the competitive world, it is necessary for the learners to master English language because English is spoken almost all over the country. Mobile-Assisted Language Learning which can replace many other technology assisted language learning modes. In formal learning settings the use of mobile is immense. This is an attempt to teach principal parts of verbs through Android application. Yaming (2012) states that mobile technologies and mobile assisted teaching have been successfully integrated in language learning, and have numerous innovative and interesting designs.

2. Brief Review of Literature

Tyron Wright Butler (2007) undertook a study of vocabulary and comprehension of students in primary grades and made a comparison of instructional strategies for the University of Florida. He selected sixty elementary school students of second and third grade and divided them into two groups: 1.Vocabulary focused instructional group and 2.Strategies focused instructional group. In the pre-test, the participants scored between 30 and 45 in the Stanford Achievement Test, 10th edition (Harcourt, 2003). The method for the treatment of the groups by using the selected short stories was recommended by elementary grade teachers focused on two things. The first one the story books were used for read aloud purpose or instructional purpose. The second one, if they had already used the books for instructional purpose, they were omitted from the study. In the vocabulary focused group, fifteen students followed discussion and activities with target words. The group focused only the target words and their meaning. In the intervention group, 15 participants used strategies like summarizing, questioning, classifying, and predicting. Then the groups were administered the post-test. The data was analysed comparing the pre-test and the post-test scores. The factors taken into consideration were expressive vocabulary reading comprehension, listening comprehension and passage comprehension. The researcher also gave vocabulary tasks. Finally the findings showed that the strategies followed increased the performance of the group.

Fernando Martinez Rodriguez and Juan Gonzalez Martinez (2017) conducted a qualitative study to analyze the adequacy of engineering teachers regarding virtual classrooms. The study evaluated the process of

engineering teachers in the moodle platform. With a help of a checklist, this study had a direct observation technique to collect the data. The result of the study showed that engineering faculty has adequate clarity in handling virtual classrooms in didactic, pedagogical and technical aspects. The study concluded on the need of creating models or other sources to serve as guide to engineering teachers for effective teaching.

Lung-Hsiang Wong (2013) made an analysis of students' language learning through MALL after school hours. Design Based Research (DBR) methodology was adopted in this study. The study administered a questionnaire on technology support for promoting independent learning atmosphere. Through qualitative and statistical investigation this study concluded that mobile technologies helped learners to study autonomously.

3. Hypotheses of the Study

This study formulated the following hypotheses to test the learners' performance with regard to learning grammar.

- H1- There is no significant difference in the performance between the experimental group and the control group in the pre-test with reference to principal parts of verbs.
- H2- There is no significant difference in the performance between the experimental group and the control group in the post-test with reference to principal parts of verbs.
- H3- There is no significant difference in the performance between pre-test and post-test in the experimental group test with reference to principal parts of verbs.
- H4- There is no significant difference in the performance between pre-test and post-test in the control group with reference to principal parts of verbs.

Selection of the Testing Items

- Principal parts of the verbs

S. No.	Infinitive	Present	Past	Past participle	Present participle
1.	To come	Come (s)	Came	Come	Coming
2.	To put	Put (s)	Put	Put	Putting
3.	To win	Win (s)	Won	Won	Winning
4.	To zoom	Zoom (s)	Zoomed	Zoomed	Zooming
5.	To go	Go (es)	Went	Gone	Going

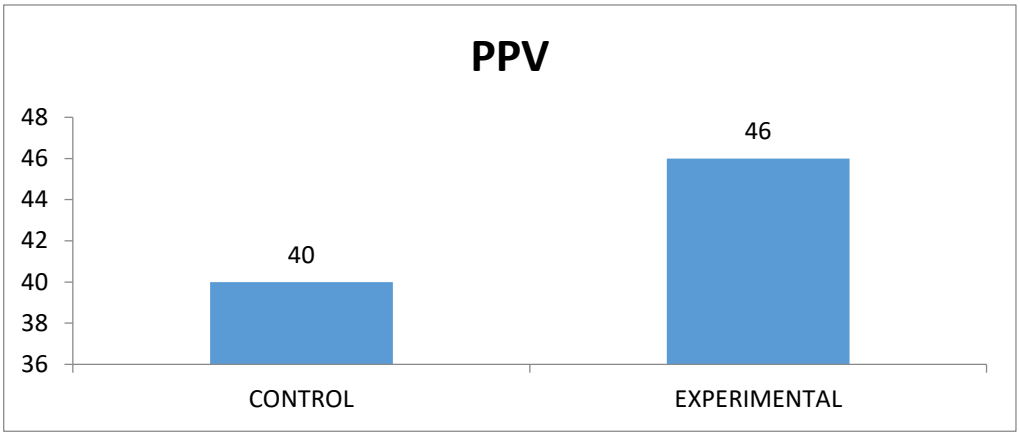
The Importance of Learning Principal Parts of Verb

Despite having many number of commendable advancement in learning principal parts of verb, this study is listed some of the best in the following.

- It is essential to form the 3 tenses and 12 aspects of tenses.
- It is mandatory to know the past participle to form the passive sentences.
- The more you learn it, the more you can use the verbals such as infinitives, gerund and participles.
- It is more important to know the inflection of the present form considering the persons whether they belong to I, II or III persons.

4. Results and Discussions

Fig. 1: Comparison of Control group and Experimental Group in the Pre-test



The chart shows the comparison of performance of the control group and the experimental group in the pre-test. It is understood from chart 1 that in the grammatical unit PPV the number of right answers is 40 out of 150 by the control group while it is 46 out of 150 by the experimental group. Comparatively, the experimental group has secured more marks than that of the control group in PPV.

Table 1: Pre Test

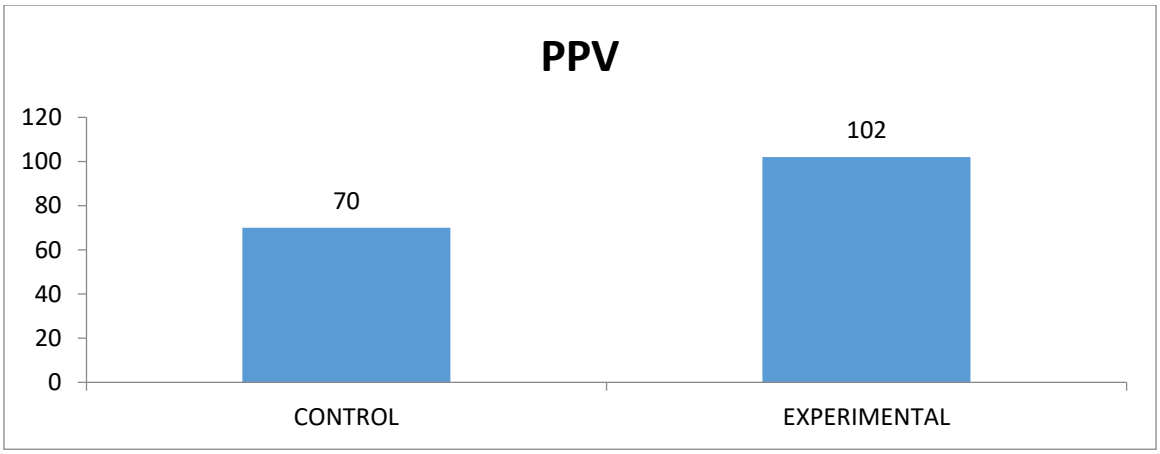
S. No.	Testing Items	Group	Number	Mean	t Value	Significance
1.	PPV	EG	30	1.5333	.562	.576
		CG	30	1.3333		

The table shows the performance level of both the control group and the experimental group in the pre-test and also the mean difference and its level of significance between the experimental and the control group in the pre-test (before intervention).

The table shows that PPV has a mean value of 1.5333 for the experimental group and 1.3333 for the control group in which the experimental group has performed better.

From the mean value of the control and the experimental group and its significance in the pre-test, it is understood that they are almost the same in their grammatical knowledge before intervention. This ensures that both the groups are identical.

Fig. 2: Comparison of the Control Group and the Experimental Group in the Post Test



The chart shows the comparison of the control group and the experimental group in the post-test. In the grammatical unit PPV the number of right answers is 70 out of 150 by the control group while it is 102 out of 150 by the experimental group.

In comparison with the control group, the experimental group has come out with more number of right answers after the Android App intervention. Therefore, it is graphically evident that the Android App intervention has created a positive platform for the group in learning verbs.

Table 2: Post Test

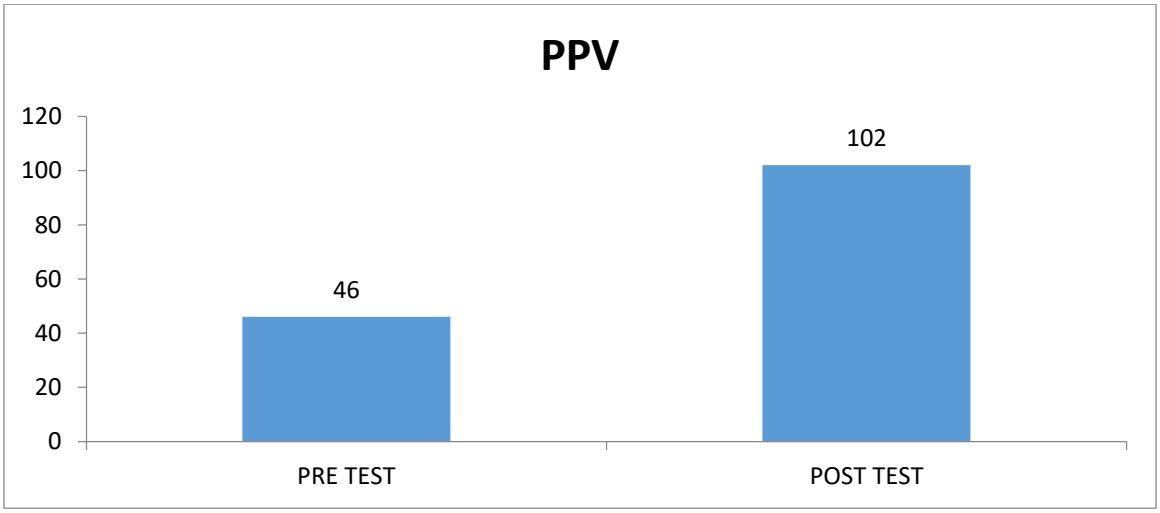
S. No.	Testing Items	Group	Number	Mean	t Value	Significance
1.	PPV	EG	30	3.6000	4.215	.000
		CG	30	2.2667		

The table shows the performance level of both the control group and the experimental group in the post-test and also the mean difference and its level of significance between the experimental and the control group in the post-test (after intervention).

The table shows that PPV has a mean value of 3.6000 for the experimental group and 2.2667 for the control group in which the experimental has performed better.

It is observed that there is significant mean difference between the experimental group and the control group with a higher mean value in the experimental group at 0.01 level. It is statistically proven that 99% of the time when the test is repeated, the results will tend to be the same. The variable that has significant difference at 0.01 level is PPV. However, Android App is found to be useful for the experimental group.

Fig. 3: Pre-test Experimental Group Vs Post-test Experimental Group



The chart shows the performance of the experimental group in the pre-test and the post-test. It is understood from the chart 3 that in PPV the number of right answers of the experimental group is 46 out of 150 in the pre-test while it is 102 out of 150 in the post-test.

It is obvious from the chart that the substantial number of right answers has increased from the pre-test to the post-test. The Android app pedagogical intervention has proliferated in the grammatical unit.

Table 3: Experimental Group in the Pre-test and the Post-test

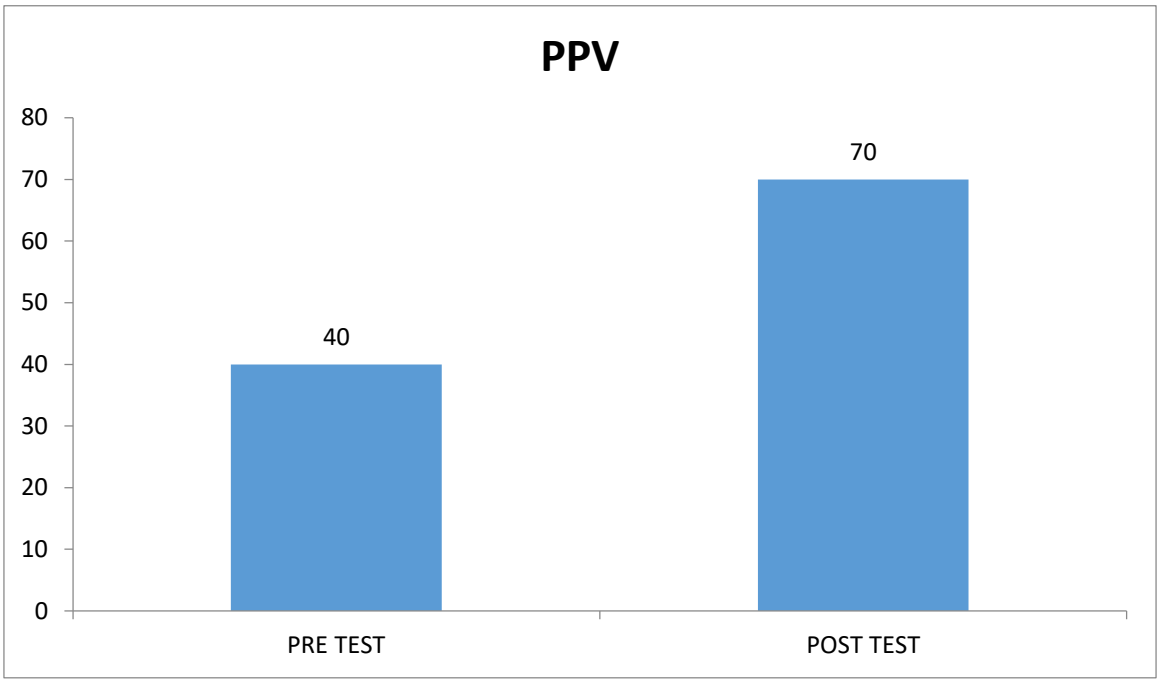
S. No.	Testing Items	Experimental Group	Number	Mean	t Value	Significance
1.	PPV	Pre-test	30	1.5333	-6.430	.000
		Post-test	30	3.6000		

The table describes the statistical analysis of mean difference and its level of significance between the experimental group of the pre-test and the experimental group of the post-test.

The table shows that in PPV the experimental group has a mean value of 1.5333 in the pre-test and 3.6000 for the same group in the post-test in which the group has been performed better.

Furthermore, the table shows the mean differences between the pre-test and post-test of the experimental group. In PPV, the difference is 2.0067. Considering the significance .000, it is evident that the effect of the Android App is created a positive pedagogical tool in teaching grammar.

Fig. 4: Pre-test Control Group Vs Post-test Control Group



The chart shows the comparison between the pre-test and the post-test performance of the control group. It is understood from the chart 4 that in PPV the number of right answers is 40 out of 150 in the pre-test while it is 70 out of 150 in the post-test.

Table 4: Control Group in the Pre-test and the Post-test

S. No.	Testing Items	Control Group	Number	Mean	t Value	Significance
1.	PPV	Pre-test	30	1.3333	-3.979	.000
		Post-test	30	2.2667		

The table describes the statistical analysis of mean differences and their levels of significance in the performance of the control group in the pre-test and the post-test.

The table shows that PPV has a mean value of 1.3333 for the control group in the pre-test and 2.2667 for the same group in the post-test in which the post-test performance is better.

5. Findings of the Study

In this paper, researcher investigated the effect of the Android application in teaching English grammar with reference to principal parts of verb. Based on the findings, it is evident that there is significant difference in the experimental group. The performance of the experimental group has secured a higher mean value than the control group and the level of its significance is .000. at the same time a cross verification is made to know the difference in the performance of the experimental group in the pre-test and post-test. After intervention, the performance is a commendable one. The stated four hypotheses are tested and H1 is accepted without any changes and H2, H3, and H4 are rejected and it is found that there are significant differences in their performance.

6. Conclusion

Having experienced technology assisted grammar learning and teaching in the form of Android application, it is evident that there is a significant difference in digital learning.

However, it is not so easy to teach grammar explicitly in a comparatively small period of pedagogical teaching intervention yet, this study has achieved some considerable amount of improvement for the target learners. It is observed that technology assisted grammar learning makes the target group study independently.

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