

Application of Social Networks to Support Students' Language Learning Skills in a Blended Approach

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Abstract

Introduction: The emergence of new technologies has created a potential educational environment where teachers can support second language learning. This study examines the effectiveness of the blended approach in learning English through the mobile social networks to enhance the level of listening and speaking skills of primary school students.

Method: The research design is an applied and semi-experimental method. Population included the students of primary school aged 7-9 with sampling selected randomly. Research tool was a researcher made test in English. In data analysis descriptive statistics (mean, standard deviation) and inferential statistics (covariance) were used.

Result: Gains in the scores of the final exam of the experimental group exposed to blended designing instruction compared to those in the control group taught through current face-to-face method, demonstrated a significant difference. The findings of the study support the idea that the use of the blended approach has affected the skills of the language learners for 1stgrade students ($p<0.03$), 2ndgrade ($P<0.01$), and third grade ($P<0.02$) positively.

Conclusion: The findings of the study bear some significant implications for curriculum designers, teachers and students and highlight the crucial role of using the technological devices and applications in promoting the learners' capabilities in listening/speaking.

Key words: Blended Approach, Primary School, English Language Teaching, social Networks

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Introduction

The Primary focus on computer use in language learning classrooms has improved to the point where technology is regarded as a part of the common teaching experience. While due to the limited time of the classrooms and abundance of students in primary schools, a solution is required to direct their individual language learning in a more effective way. Moreover children always need support during language learning and the intervention of parents or other family members with no expertise in the field of foreign language teaching will lead to irreparable harm to both teaching process and their motivation. These observations raised the question of how to design technology for digital natives to support second language learning in the classroom.

The concerns raised above are echoed by the blended learning approach in that the primary focus on computer use in language learning would be of a hybrid function i.e. in and out of classrooms.

The main focus of blended learning is on the learner involvement which could be better achieved with the help of the Internet and Information and Communication Technology (ICT). Garrison and Vaughan (2008) believe that the approach is fundamentally based on the thoughtful combination of face- to- face and online education, reconsideration of the design of the lessons for the highest possible learner involvement, and the reconstruction and replacement of the traditional classroom hours(1).

To understand foreign language learning, it is necessary to examine not only the linguistic characteristics of the target language, but also the physical, psychological, and the social characteristics of the learner. As children play an active role in learning their native language, foreign language learners acquire through their skills, strategies, physical/ cognitive development, goals, attitudes, and certain motivations that are effective in their success. So with all these effective factors, learning will not be identical in different subjects. According to Uso-Juan and Martinez-Flor (2006), there has been a shift in our understanding of second language skills and the way they are learned/taught over the past five decades. They maintain that there has been a big change in the paradigms of teaching language skills in three phases. They call the first phase the environmentalist approach where under the influence of the structural linguistics and behaviouristic psychology, the learning of the language skills were considered as a stimulus/response/reinforcement procedure. During the second phase (the 1960s) and after the publication of Chomsky's book *Syntactic Structure* (1957), the innatist view towards learning the four language skills was dominant. That is, learning language skills were considered as an active cognitive process where the learner and his mental abilities have a crucial role in active involvement in acquiring a second language skill. And the last phase or paradigm shift, as they further highlight, took place in 1970s where the interactionist approach and the functional/contextual aspects of language were of more

significance(2). Actually in learning the four language skills the interactional purposes of the learners were taken into consideration and not just the linguistic information or forms. In line with this very last approach towards learning the four language skills, the present study intends to use the social network framework as the main focus of the study and gear the learning procedure of the L2 skills and particularly listening and speaking, towards the interactional orientation of such educational technologies. Although many large-scale studies have been undertaken to identify the potential benefits of blended learning for primary school students, several researchers, as detailed in the following sections, have explored the concerns of this approach in language learning from different perspectives in a number of studies.

Kennedy and Levy (2008) conducted a study on Italian language learning using mobile phone. That is, in addition to classroom presentation, practice and feedback were also performed via mobile phone in their research. The results of the learners being taught through the mobile phone in Kennedy and Levy's study were more significant than those who were taught through current methods in classrooms. Meanwhile, each learner showed progress according to their learning speed(3).

Wong, et al.(2011) studied the blended approach in the development of the writing skills of primary school students in China. Writing problems of these students included incorrect use of words and writing rules. In their study the collaborative writing practice program was developed in the Wiki platform using a variety of tasks including paragraph writing, sentence building, summarizing or cataloguing. Based on the interaction between teacher and students and among students, the aim was to restore their writing skills. The results analysis indicated the improvement of writings kills of students in the experimental group. Blended approach had, indeed, a positive effect on the improvement of the students' writing skills(4).

In a study by Sandberg, et al. (2011), the effect of learning English via the mobile phone was evaluated on the fifth grade students of a primary school in three groups. To the first group, English lesson was presented in the class room with the subject of wild animals. In the second group, in addition to class room teaching, children visited the zoo and were given the mobile phone in order to perform some related activities. The third group, like the second one, learned their lessons as the other groups, but they took their mobile phone home. The pre-test and post-test were performed for all the three groups. The results showed that the group who took their mobile phone home had more learning progress. The study showed that the use of the mobile phone in language learning increased the students' motivation and ultimately led to more effective learning providing efficient learning experiences(5). In effect, in addition to the formal English teaching at school, it has become more possible to practice in an informal environment outside the classroom context by using mobile phones at home.

Although the studies reviewed in this section intended to enhance the language learning phenomenon by the use of such ubiquitous technological devices as mobile phones, they did not take the role of the social network tools on the mobile phones into much consideration. Another point worth noting is that even those research studies which investigated the impact of the social network tools in learning mainly focused on the skills other than listening and speaking. As an example Sugie (2012) intended to develop an appropriate blended social learning model for Chinese language education in Japan. The point was how to increase the motivation and learning speed of the high school students and include this motivation in real-life events. The main purpose of Sugie's study was to make opportunities to increase students' relationship with native Chinese speakers through the use of information technology and communications in order to improve their writing skills and thereby increase their motivation and satisfaction from learning Chinese. The participants in the experimental group were novice learners undergoing presence training and presence grammatical exercises, web-based training and having interaction with the native Chinese speakers through the use of a white board. Qualitative analysis of students' evaluation showed that the level of satisfaction increased in Japanese learners and the experience of online speaking with native speakers had a good impact on Chinese learning improvement(6). Based on the appropriate analysis of the students' needs, the educational systems stakeholders can design technological models in such a way that both the learners' reaction to the new learning environment and the possible effects on the process of learning /acquisition are promising.

The literature shows that there have been some studies which considered the role of social networks in boosting the learners' language acquisition procedure and the type of interactions. Despite the growing body of research on the use of the technological platforms in language learning, a gap is still felt to exist in elaborating the social network potentiality in supporting the learners and their cognitive learning development (7).

Motivated by the issues raised above from both the pedagogical and theoretical perspectives, the researchers conducted an action research to further examine the application of social networks technology in language learning. Hence, the purpose of this research study was to explore the effect of blended approach in a supportive environment on the listening and speaking skills of the children aged 8-10 in a real context. Thus, the formulated hypothesis of this study was that the English learning gains in the first, second and third grade students through the blended approach were greater than those not exposed to the same method.

Method

1. Study design and population

The present study was applied and interventional research. The population of the study included all male elementary

school students in Tehran, District 3, South-west of Iran, of whom 90 students were selected randomly as the sample of the study. Students ranged in age from 8 to 10 in first, second and third grade, respectively.

2. Methods

The study design is quasi-experimental.

3. Measuring tools: validity and reliability

To measure the student's achievements in listening and speaking skills, a researcher-made test (Oral test was developed for the pre-test and post-test phases of the study). Since one of the researchers was indeed the teacher of the experimental group, before administering the test and to assure the validity of the test, a panel of experts with 15 years of relevant experience provided some comments in 3 rounds and their opinions were taken into account in revising the test items. The test-retest technique was utilized in determining the test reliability (0.70).

4. Intervention

In each of the control and experimental groups there were 14 first grade students, 16 second grade students, and 15 third grade students. At the beginning of the training phase, the pre-test was performed to both the experimental and control groups according to the determined objectives. For each session of implementation, an appropriate lesson plan was developed consistent with the class teaching methodology and available technology facilities. The students' performance was reported by the teacher at the end of each class and the contents required for the next session were sent to them through their parents' mobile phone using What's App software for the experimental group but for the control group the activities were carried out through the usual notebooks or in class practices. The parents were briefed and trained on how the assignments were sent and how they should check. In fact, a survey questionnaire was administered among the students' parents asking who would like to cooperate with the researchers in the project and could contribute to the sending and receiving procedure of their children's assignments via their mobile phones, with the support teacher who provided the main teacher and the students with some help where necessary. Some of the sent activities were assessed during the class or the related feedback was provided for the students. The students were sometimes required to do some activities, report on them and send the recorded assignment through the mobile phones. As an example, when some audio files were sent to the students, they could send the answer as audio, picture or movie files. In one of the activities, for instance, one question was posed as: 'Where are you sitting, what is your mother doing, and what are you having for dinner tonight?'... One month after the complete implementation of the program along with attending the classes two days a week for four weeks, the post-test was carried out on the students in both groups. The score 70 out of 100 was regarded as the passing grade. In the meantime, parents and their children had some interactive activities with the support and guidelines of the teacher and looked

for their probable problems through the intervention or non-intervention educational /language practices of their children.

In fact, according to the expected performance of the children group, the primary presentation was conducted in the classroom with regard to the network-based real and tangible medium, drawing and presentation medium, or multimedia. Also the second round of presentations were carried out with the appropriate feedback and guidance from the teacher for each student in different groups or individual groups using a diverse range of activities. A variety of small and large group games was carried out with the help of audio files or repeating of the same files by students for their performance in both classes of each grade. However for productive performance, it was attempted to create an opportunity outside the classroom and in real-life environments for students to express their thoughts and send them to support teachers in the form of audio and video files or movies. But for the control group they should have imagined and talked about the same situation as the experimental group.

In the control group the feedback was given inside the classroom to the students but for the experimental group it depended on their mistakes or errors i.e. sometimes the support teacher provided each student with direct feedback and sometimes the teacher herself talked about it inside the classroom providing some clues for the correct answer, and finally they came up with the final correct form together and decided on the best answer.

5. Ethical consideration

The ethical considerations necessary to satisfy the participants were observed, so a survey questionnaire was administered among the students' parents showing who liked to cooperate with the researchers in the project and could contribute to the sending and receiving procedure of their children's assignments via their mobile phones with the support teacher who provided the main teacher and the students with some help where necessary.

6. Inclusion and exclusion criteria

Inclusion criteria included having written consent on behalf of the parents in order to implement the social network activity in learning English language.

Exclusion criteria included unwillingness to participate in the study and the absence in sessions or transfer of a student from school.

7. Data Analyses:

Data of study were analysed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (Kolmogorov - Smirnov test and Levin analysis, Covariance) using SPSS- 21 software to examine the hypothesis of study.

Results

Descriptive statistics data in the two groups are presented in Tables 1-3 opposite :

Table 1. Descriptive statistics data in experimental and control groups of 1st(n=28), 2nd(n=32) and 3rd(n=30) grade primary school.

In order to test the hypothesis of research homogeneity of variance and normality of distribution in the analysis of data. They were examined through the Kolmogorov–Smirnov and Levine tests. Test results are presented below in Tables 2 and 3.

As the results in Table 2 show, the probability of random difference between sample distribution and normal distribution is higher than 0.05.

As the results in Table 3 show, the significance level was higher than 0.05, and thus the hypothesis of homogeneity of variance was confirmed in sample groups.

The first row of Table 4 (page 94) showed the effect of the pre-test significance (0.04). That is, the pre-test and post-test were correlated and it was required to select it to control primary differences between the two groups in each grade. The second rows show the performance between the two groups after the test, which was significantly different (0.03, 0.01, 0.02). Thus, as indicated in the table of descriptive data, the group who learned language through the blended pattern had a higher mean than the group who underwent conventional training. The ubiquitous technological tool of mobile phone has the potentiality of presenting so many learning features and its ease of use, convertibility into a language learning device and capability of creating new software enabled all teachers and students to work with them.

Discussion

To answer the research hypothesis (English learning in first, second and third grade students through the blended approach were greater than the students not exposed to blended approach), language program with a blended approach using mobile phone was designed and was tested on the first, second and third grade students. The results of analysis of covariance showed that the blended approach had a positive impact on the learning process and the difference between the experimental and control groups were statistically significant for the primary first-grade students (0.03), second grade (0.01) and third grade (0.02) at the level of 0.05. In other words, the approach has been able to facilitate a kind of personalized learning by developing a flexible environment. The study results are consistent with that of Ghaffari et al.(8), Sandberge et al. (5), Sugie (6), De Silva Soares & Weissheimer (9), Lai et al. (10), and Ferreira et al. (11), Fahimi et al.(12).

Table 1: Descriptive statistics data in experimental and control groups of 1st(n=28), 2nd(n=32) and 3rd(n=30) grade primary school

| | Mean | | | Standard deviation | | | Maximum value | | | Minimum value | | |
|----------|-----------------|-----------------|-----------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd |
| Pretest | 51.5 | 59.8 | 63 | 8.7 | 13 | 8.5 | 73 | 78 | 78 | 40 | 37 | 45 |
| Posttest | 88 | 87.3 | 90 | 9.3 | 9 | 8.7 | 100 | 100 | 100 | 66 | 69 | 74 |

Table 2: Kolmogorov–Smirnov test results of 1st, 2nd, 3rd grade primary school

| Variable | Statistic | | | Significance | | |
|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd |
| Pretest | 0.83 | 0.8 | 0.5 | 0.83 | 0.7 | 0.9 |
| Posttest | 0.85 | 0.8 | 0.8 | 0.85 | 0.6 | 0.5 |

Table 3: Levine test for homogeneity of variances of 1st, 2nd, 3rd grade primary school

| | Statistic | | | First degrees of freedom | | | Second degrees of freedom | | | Significance | | |
|----------|-----------------|-----------------|-----------------|--------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd | 1 st | 2 nd | 3 rd |
| Pretest | 0.03 | 2.0 | 0.04 | 1 | 1 | 1 | 26 | 30 | 28 | .80 | 0.1 | 0.8 |
| Posttest | 1.6 | 0.4 | 1.8 | 1 | 1 | 1 | 26 | 30 | 28 | 0.2 | 0.5 | 0.1 |

The students and their parents expressed positive feelings regarding working through the blended approach using mobile phone. As the support teacher was aware of the specific interests and needs of the students they felt a sense of obligation to further their students' learning and correct their common mistakes. The students expressed some surprise about the feedback provided because it did not resemble the type of feedback they had had before. Drawing from the results discussed above, the researchers developed a visual model to better illustrate the instructional design of the learning environments in different models of blended approach.

According to researchers in the field of Computer Assisted Language Learning (CALL), some of the existing shortcomings in the foreign language learning contexts can be overcome using the appropriate technology and innovative medium of instruction. This is in part due to the fact that there is limited access to the natural environment of native language in foreign language education and in many cases; it is confined to a few minutes of listening to/watching the audio/video materials inside the classroom through the implementation techniques which are also impaired. As Jonassen, et al.(2008) point out; technology includes the design of various types of learning environments which involve the learner(13) Facilitating the role of the teacher and learner is useful in this type of exercise. The most significant perceived merits of blended learning were related to the combination of the elements and the amount of support provided by teachers and the institute's infrastructure. Creating the blended learning environments that are informative and interactive without sacrificing the flexibility of the individualized instruction requires much greater effort and creativity on the side of teachers. What seems to be necessary is developing a bank of learning activities relying on various types of game

and non-game software based on the fixed or portable technologies that are becoming more popular day by day among children. It can provide a lifelong learning route for them in a way that in more advanced levels of productive performance, students will be able to show their creativity and linguistic competence by writing a variety of interesting topics in group blogs or Wikis as some forms of blended learning platforms which can be the foundation for some useful learning models.

It also turned out that the techniques and methods of blended approaches and the use of media or technology in children's language learning has caused some confusion for teachers. As Ozdamli and Uzunboyulu, (2015) assert, teachers' and students' perceptions to use technology are positive but their technology learning adequacy levels are not sufficient (14). Therefore, some educational courses should be provided for teachers in the context of this approach and its methods so that they can adapt themselves to the demands of new learning opportunities.

Conclusion

In summary, even though the findings of the present study and a large number of other research projects have supported the positive role of technology, it should be borne in mind that the key to the success in using the blended approach in teaching language is to integrate it wisely in educational contexts. Since technology as Saedi and Sajjadi (2014) have asserted, has a double face(15). That is, much care should be taken in designing a practical and fruitful blended classroom by the use of the technological platform through which the maximum learning outcome is achieved.

Table 4: The results from examination of the impact of pretest on posttest through analysis of covariance of 1st, 2nd, 3rd grade primary school

| Source | Sum of squares | | | Degrees of freedom | | | Mean square | | | Statistic | | | Significance | | |
|---------|----------------|--------|--------|--------------------|-----------------|-----|-------------|-----|-----|-----------|-----|-----|--------------|------|------|
| | 1st | 2nd | 3rd | 1st | 2 nd | 3rd | 1st | 2nd | 3rd | 1st | 2nd | 3rd | 1st | 2nd | 3rd |
| Pretest | 316 | 275 | 263 | 1 | 1 | 1 | 316 | 275 | 263 | 4.6 | 4.2 | 4.2 | 0.04 | 0.04 | 0.04 |
| Group | 337 | 468 | 334 | 1 | 1 | 1 | 337 | 468 | 334 | 4.9 | 7.2 | 5.3 | 0.03 | 0.01 | 0.02 |
| Error | 1704 | 1884 | 1671 | 25 | 29 | 27 | 68 | 65 | 62 | | | | | | |
| Total | 219182 | 246585 | 245230 | 28 | 32 | 30 | 316 | | | | | | | | |

Table 4: The results from examination of the impact of pretest on posttest through analysis of covariance of 1st, 2nd, 3rd grade primary school

The present study made an attempt to develop a model of blended classroom for children at different proficiency levels in a way that they enjoy learning and are supported positively within a face-to-face and virtual environment. The finding of the study can be of benefit to curriculum designing stakeholders and teachers to be more active in using the technological tools in enhancing the learning phenomenon in primary school contexts.

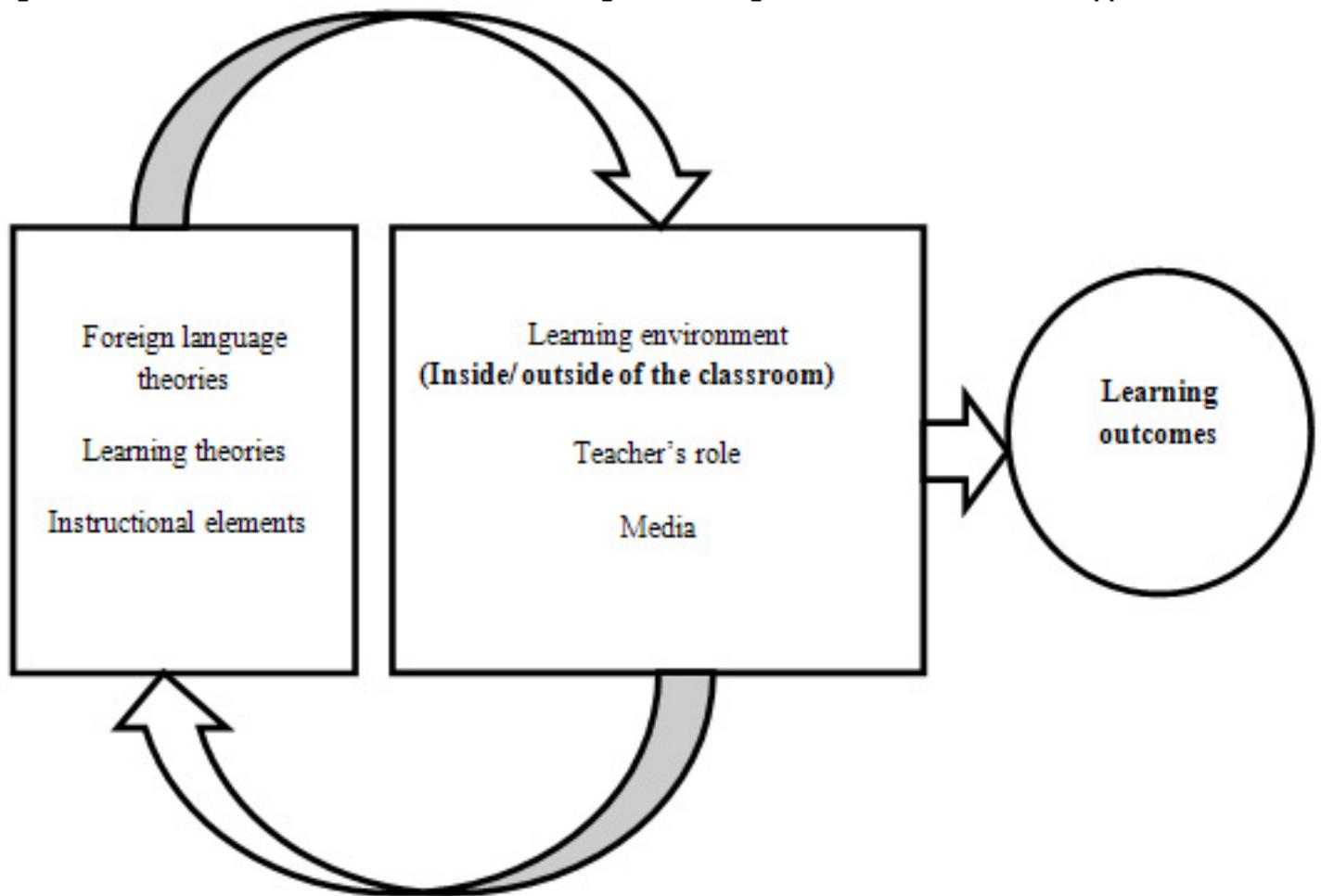
Limitation:

Even though this study unravelled some issues related to blended learning in the context of Iran, further research should be conducted on this approach, especially in the field of language learning. Furthermore most studies focused on one aspect of technology and were mostly case studies. Moreover, articles were not so much concerning language blended learning on children and the study population were boys and for girls the results may not be applicable.

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Figure 1: A model to illustrate the instructional design of learning environment in a blended approach



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