The Effect of Short Message Service (SMS) on Iranian EFL Learners’ Attitude toward Learning English

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Abstract

In order to investigate the effect of SMS on participants’ attitude toward learning English, a group of 75 students were selected from 90 students who were studying different engineering fields at Arak University of Technology. But 38 students took part in the whole study. Data analysis using paired T-test showed the positive effect of SMS on participants’ attitude toward learning English. Also, the relationship between gender and participants’ attitude toward learning English by using SMS was investigated. Data analysis using ANOVA repeated measure revealed no relationship between gender and participants’ attitude toward learning English by using SMS.

Key words: Learning English; Short Message Service (SMS); Attitude toward Learning English; Gender

Introduction

In 2001, Marc Prensky warned teachers, “Our students have changed radically. Today's students are no longer the people our educational system was designed to teach” (p.1). He intended to describe how these "digital natives" are exposed to more gadgets, tools and technology than was ever thought possible. This has a deep effect on the ways through which children learn. They are more engaged in learning when using the latest technological gadgets, because it is what they are most used to interacting with. Students do not just want mobile learning; they need it (Wylie, 2010).
One of the most useful features of a mobile phone is SMS (Short Message Service). Via SMS, we can provide a list of words with their meaning in English, synonyms and antonyms, as well as examples of application of these words in different sentences. Similarly, the use of SMS in terms of education provides the opportunity to train at a specified time intervals and limited quantities. This can increase learners' interest and motivation toward learning.

In Iran there are only two hours per week for the English class in most universities, so the English class becomes the only time to use English and learners face the challenge of lacking exposure to English (Motallebzadeh & Ganjali, 2011).

**Phrasal Verbs**

One of the most commonly overlooked aspects of the English language and also one of the most important is Phrasal verb. Phrasal verbs are really important for EFL Learners to study because they are used all the time by native English speakers, and are a key factor in speaking “natural” English. Also, poor knowledge of phrasal verbs may leads to incorrect inferences or misunderstanding of the content when reading English materials. So, Teachers should make students aware of phrasal verbs and encourage them to store them in their memory by new methods and technologies.

The number of phrasal verbs and their high frequency in discourse make them an important aspect of vocabulary acquisition and language learning in general. Thus, this study included phrasal verbs, among other language components, to be taught via mobile phone’s SMS.

The researchers in this study believed that SMS could help extend learners' opportunities in meaningful ways and provide better conditions for learning phrasal verbs. With that in mind, the researchers tried to examine the effect of introducing phrasal verbs by using SMS on participants' attitudes toward learning English. The first author also investigated the relationship between gender and learners’ attitude toward language learning by using SMS.
Statement of the Problem

Difficulties and obstacles in the learning of English at schools and universities in Iran encourage teachers and researchers to look for ways to overcome these barriers. Teachers should make learning interesting for students and make them responsible for their own learning. One way is to encourage students and teachers to use available technologies rather than using traditional methods of language learning and teaching. Cognitive and metacognitive approaches have implications for how to integrate teaching in the communicative way. These approaches include the use of technologies such as mobile phones that can be used to help learners.

Today the Iranian students have got at least one mobile phone that is always and everywhere with them. It can be used as an educational tool that is always available and does not have some of the limitations of traditional methods. According to Anohina (2005), SMS refers to the use of technology for learning and includes educational processes carried out in agreement with different theoretical models followed by using different educational methods and is based on activities that take place via any electronic medium. On the other hand, Phrasal verbs are rarely learned and experienced and most of the times they are ignored in language classes in Iran. The startling fact here is that just the tiny percent of learners will ever pay attention to phrasal verbs (Motallebzadeh & Beh-Afarin, 2011). It is not clear as to whether young teachers are not aware of phrasal verbs’ important role or the students unconsciously ignore learning them. But the lack of knowledge of the phrasal verbs leads to incomplete English learning. Since, the effectiveness of using technology on learning English has been proved in several studies in recent years, the researchers aimed to investigate the effect of using SMS on learners’ attitude toward learning phrasal verbs among other language components in learning English in Iran.

Review of Literature

Multiple studies have explored students’ attitude toward technology (Warschaure, 1996; Brett, 1991; Trinder, 2002; Fernandez, 2003; et.al), and the overall results show positive attitudes.
toward technology use in language learning (Greenfield, 2003; Bulut&Farhan, 2007; Fernandez. 2005; Daud, 1995).

Also, as cited in Mokhtari (2013) the findings related to researches on teachers’ attitudes toward the use of technology for educational purposes shows that there is a general consensus among the majority of teachers over the suitability of technology use for EFL and educational purposes in Asia and other parts of the world (e.g., Aydin, 2012; Eugene, 2006; Hu, Clark, & Will, 2003; Kim, 2002; Ismail, Almekhlafi, & Al-Mekhlafy, 2012; Motaghiian, Hassanzadeh, &Moghadam, 2012; Pynoo, Devolder, Tondeur, Van Braak, Duyck, &Duyuk, 2011; Park & Son, 2009; Simonsson, 2004;Yuen & Ma, 2008).

Mokhtari (2013) explored the general attitude of Iranian EFL learners towards technology in the process of their language learning. The results revealed that the subjects of the study, in general, held a positive attitude toward the use of technology for language learning. Khazaie, GonibandShoshtari, Mohammadi and Hekmatshoar (2012) were going to discover how cell-phone could be programmed to provide a means to fulfill social and learning purposes. Therefore, the students' language proficiency, the manners of learning content delivery, as well as the students' attitudes towards these manners to learn new English vocabulary items were explored. The participants were divided into a'social' (G1) and an 'individual' (G2) group randomly. A Likert type engagement questionnaire was distributed among participants of both groups and the results of matched t-test revealed that the learners in two groups had the same attitude towards vocabulary learning through the medium of social webs and story writing.
Dansieh (2011) examined the transformative effect of SMS text messages on students’ written communication skills. In his article he examined the possible effects of SMS on students’ writing skills, and students and teachers’ attitudes towards this phenomenon.

Lu (2008) used a counter balanced design to investigate the usefulness of short message service (SMS) on 30 vocational high school students’ vocabulary retention. . Also at the end of the experiment the participants were interviewed to find their attitude towards mobile assisted language learning. The information gained by interview showed that generally students had
positive attitudes towards mobile vocabulary learning and liked to continue learning vocabulary with the aid of mobile.

Motallebzadeh, Beh-Afarin and Daliry Rad (2011) used short message service to help Iranian intermediate EFL learners to retain English collocations. Moreover, according to participants’ answers to the attitude questionnaire the participants of the experimental groups were asked to complete, they had positive attitudes towards learning collocations via SMS.

Investigating learners’ attitude toward learning English by using SMS as a new pedagogical tool is a subject that few studies have explored. Also, the researcher managed to claim that this is the first study exploring the relationship between gender and learners’ attitude toward language learning by SMS. the researcher tried to survey using of SMS on EFL learners’ attitude toward language learning as well as the relationship between gender and learners’ attitude toward learning English language.

To gain these aims, the researchers postulated these hypotheses:

1. Using SMS does not have any effect on learners’ attitude toward language learning.
2. There is no relationship between gender and learners’ attitude toward language learning by using SMS.

Methodology
Participants

A group of 75 students were selected from 90 students who were studying different engineering fields at Arak University of Technology. But 38 students took part in the whole study. 12 participants were female and 26 participants were male. Their ages ranged from 18 to 22 years old and all were native speakers of Persian.

Materials

Nelson Test
In order to make sure that all participants were homogenous and truly at the same level of language proficiency, the Nelson test (version 100A) developed by Fowler & Coe (1976) was administered. The reliability index of this test was estimated at 0.824.

**Attitude Test**

In order to assess the participants’ attitude toward learning English by using SMS as an innovative way in language learning, a questionnaire consisting of 10 statements in Likert scale was prepared by researcher. The test included 6 items measuring language learning attitude as well as 4 items measuring participants’ attitude toward learning English through SMS. 5 statements reflected positive attitude and 5 statements reflected negative attitudes toward English learning. In order to prevent any misunderstanding and difficulty in reading on the part of respondents, questionnaire was written in Farsi. Its translation has shown in appendix A.

**Short Message Service (SMS)**

Participants in the study received treatment in form of SMS. Participants received 54 SMS including 25 phrasal verbs, definitions and related examples during 25 days. Each phrasal verb and its attachments were sent in 2 SMS (See appendix B).

**Procedure**

In the process of carrying out the study, researcher took the following procedure to achieve the objectives of the current study.

At the first step of the research, to ensure the homogeneity of participants at the outset of the study, a Nelson Test was administered. Having analyzed data, the researcher selected 75 students (N=75), including 24 females and 51 males. But, just 38 of them took part in both pre and post attitude test, Including 26 male and 12 female.
At the next step, in order to evaluate the accuracy of null hypotheses, participants took part in pre-attitude test. They were asked to answer the attitude questionnaire. The questionnaire consisted of 10 negative and positive statements regarding participants’ attitude toward learning English and participants’ attitude toward learning English via SMS. The questionnaire was based on Likert scale ranging from strongly disagree (1) to strongly agree (5).

Then, Participants took phrasal verbs through SMS. Depending on the length of the items, they received each phrasal verb by 2 or 3 SMS.

Having finished the treatment, which lasted for 25 days, participants were asked to fill out attitude questionnaire as the post-attitude test. As mentioned above, the post-attitude questionnaire was the same as pre-attitude.

In order to test out the null hypotheses, some statistical data analysis was done using statistical software, SPSS.

**Results and Discussion**

Several statistical analyses were conducted to answer and test the research questions and hypotheses designed for this study.

1. Results of Nelson Test as Homogenizing Instruments

Table 1

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson</td>
<td>30.24</td>
<td>4.20</td>
<td>75</td>
</tr>
</tbody>
</table>

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As the result in table 1 shows, the mean is 30.24 and standard deviation is 4.20. So, only students (75) whose scores were between 26.04 and 34.44 were selected to take part in this study. As mentioned earlier, just 38 students took part in both pre and post attitude-test. Table 2 shows the results of 38 participants’ descriptive statistics.

Table 2

*Results of Descriptive Statistics of final participants*

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson</td>
<td>38</td>
<td>29.05</td>
<td>8.817</td>
</tr>
</tbody>
</table>

2. Result of attitude-test reliability

The Reliability obtained for attitude test by using of α-Cronbach method was 0.751. It is considered as a good reliability and test is completely reliable. Table 3 shows the obtained reliability and related information.

Table 3

*Result of Reliability of Attitude Test*

<table>
<thead>
<tr>
<th>Test</th>
<th>α-Cronbach</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Test</td>
<td>0.751</td>
<td>10</td>
</tr>
</tbody>
</table>

a. Results of Attitude-test

The following table shows the descriptive statistics for pre-attitude and post-attitude tests of participants in terms of mean and standard deviation.
As seen in Table 4, the result of pre-attitude test include (M=11.31, SD=5.410) and for post attitude test include (M=15.51, SD=3.831). It means that participants’ attitude toward learning English has positively changed after receiving SMS. In order to test the first null hypothesis, a paired sample T-test was conducted. T-test compared the difference of means between pre and post attitude test. Table 5 shows the results of T-test among participants.

As seen in Table 5 the mean difference is -4.25 and [t (38) = -6.755, P=0.00 (two-tailed)]. According to p-value, the difference between pre and post attitude test mean is statistically significant. The result indicates that participants had more positive attitude toward learning English than those before receiving SMS. So, it was concluded that learning phrasal verbs by

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SMS had positive significant effect on participants’ attitude toward learning English. Therefore the first null hypothesis was rejected.

One of the purposes of present study was to evaluate the relationship between gender and participants’ attitude toward learning English by using SMS. In so doing, some statistical analysis was done. The following table shows the results of descriptive statistics of pre attitude and post attitude test in terms of mean and standard deviation regarding gender.

Table 6

*Results of Descriptive Statistics for Attitude test of participants regarding gender*

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Attitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boy</td>
<td>26</td>
<td>10.41</td>
<td>4.717</td>
</tr>
<tr>
<td>Girl</td>
<td>12</td>
<td>13.33</td>
<td>6.485</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>11.31</td>
<td>5.410</td>
</tr>
<tr>
<td>Post Attitude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boy</td>
<td>26</td>
<td>14.96</td>
<td>4.052</td>
</tr>
<tr>
<td>Girl</td>
<td>12</td>
<td>16.75</td>
<td>3.079</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>15.51</td>
<td>3.831</td>
</tr>
</tbody>
</table>

As seen in table 6, boys in post attitude test (M=14.96, SD=4.052) showed more positive attitude than before receiving SMS in pre Attitude test (M=10.41, SD=4.717). This result is also observed in the case of girls as the result for pre-attitude and post-attitude test include respectively: (M=13.33, SD=6.485) and (M=16.75, SD=3.079). The results indicate that both girls and boys had more positive attitude after receiving treatment by SMS than before it. In order to compare the mean scores of boys and girls in pre and post attitude test an ANOVA using repeated measures design was conducted. Leven’s test was conducted to test the homogeneity of
error variances in pre attitude and post attitude test before conducting statistical method mentioned.

Table 7

*Levene’s Test of Equality of Error Variances*

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Attitude</td>
<td>3.991</td>
<td>1</td>
<td>37</td>
<td>.053</td>
</tr>
<tr>
<td>Post Attitude</td>
<td>.480</td>
<td>1</td>
<td>37</td>
<td>.493</td>
</tr>
</tbody>
</table>

As seen above P=0.053 in pre attitude test and P=0.493 in post attitude test that is more than 0.05. So, there are no significant differences between error variances of pre and post attitude test and therefore ANOVA’s assumption is accepted.

The following table shows the results of ANOVA using repeated measure designs to compare pre- and post-attitude tests of both genders.

Table 8

*Results of ANOVA Using Repeated Measures Design*

Measure: MEASURE-1

Transformed Variable: Average

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III</th>
<th>Partial</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of df</td>
<td>Mean Squares</td>
<td>F</td>
<td>Sig</td>
</tr>
<tr>
<td>Intercept</td>
<td>12773.547</td>
<td>12773.547</td>
<td>366.201</td>
<td>.000</td>
</tr>
</tbody>
</table>

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As seen in table 8, after entering the factor of gender in comparing pre and post attitude scores, we got the following results: $[F (1, 37) = 2.645, p = .112]$. It means that gender has no significant effect on participants’ attitude toward learning English. So, the second null hypothesis was accepted.

The results of this study are partially in line with Lu (2008). He interviewed participants to find their attitude towards mobile assisted language learning. The information gained by interviews showed that generally students had positive attitudes towards mobile vocabulary learning and liked to continue learning vocabulary with the aid of mobile.

The results of the present study partially support the results of Mokhtari (2013). She explored the general attitude of Iranian EFL learners towards technology in the process of their language learning. The results revealed that the subjects of the study, in general, held a positive attitude toward the use of technology for language learning.

**Conclusion and Implication**

This study was carried out with the purpose of addressing the following questions:

1. Does using SMS have any effect on learners’ attitude toward language learning?
2. Is there any relationship between gender and learners’ attitude toward learning language by using SMS?

The obtained results showed that learning phrasal verbs sent through SMS can be effective in participants’ attitude toward language learning. The statistical results revealed that participants had more positive attitude toward language learning after receiving instruction by using SMS.
SMS than before it. It can be concluded that such a way in learning phrasal verbs makes a new way of communication between learning material and learners. Since, this new way of communication between learning material and students is completely different from traditional methods, especially in terms of not having any limitation in time and space; it will increase students’ interest and motivation toward language learning and change their attitude positively.

The findings of this study rejected any relationship between participants’ gender and their attitude toward learning English by using SMS. Based on the statistical results both genders had more positive attitude toward language learning after receiving SMS than before it. The changes in attitude were investigated according to responses reflected in attitude questionnaire. The findings of the present study suggest that both genders had the same interest to use technology in the process of language learning. Based on the obtained result, the second null hypothesis was accepted.

The findings of this study might benefit those involved in the issue of language teaching and learning, including teachers, students, managers of language institutes, language textbook authors and language materials and educational aids suppliers. the personal and collaborative nature of mobile devices can encourage participation and build social capital, which can be an alternative instructional tool for learners of special needs, for example disengaged or at risk students. So, learning through SMS improves students' motivation and can involve them more actively and interactively. The findings of this study can be helpful for language materials suppliers and textbook designers. The finding of the present study can inform them of the importance of technology in all aspects of today students’ lives even in the education. This fact would force them to make a basic revision on contents and consequently look at the way of material presentation from a new point of view. They can produce materials in such a way that have capabilities to integrate with modern technologies such as mobile phone and plenty of its innovative applications.
References


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**Appendix A**

Translation of Attitude Test

Name:                                                                 Mobile Number:

- The following questions are about your attitude toward learning English and learning English via SMS. Please answer the questions carefully. Use the following table to answer the questions.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Learning English is a valuable work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Learning English is a waste of time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I enjoy learning English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I love English language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I hate English language.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>I prefer to spend my time on doing anything other than learning English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>SMS is an appropriate tool for learning English.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. SMS is ineffective in learning English.

9. I would like to take part in English learning courses via SMS.

10. Learning English via SMS is a farce.
Appendix B

Samples of SMS

<table>
<thead>
<tr>
<th>Time</th>
<th>Date</th>
<th>Message</th>
<th>Code</th>
</tr>
</thead>
</table>
| 8,500| 12:54 | Take off: a) The plane took off three hours late.  
|      |      | b) When should we expect to take off?              |      |
| 8,500| 11:16 | Take off: a) When an aircraft, bird or insect takes off, it leaves the ground and begins to fly. 
|      |      | b) The plane took off at 8:30 a.m.                 |      |
| 8,500| 11:14 | Grow up: a) He integrated with his parents in 1985, and grew up in long island. 
|      |      | b) What do you want to be when you grow up?        |      |
| 8,500| 11:14 | Grow up: a) To gradually become an adult.           |      |
|      |      | b) What do you want to be when you grow up?        |      |
| 250  | 11:54 | Get away: a) I'll get away from work as soon as I can. 
|      |      | b) I had to get away from work. It was awful.      |      |
| 8,500| 11:49 | Get away: a) I'll get away from work as soon as I can. 
|      |      | b) I had to get away from work. It was awful.      |      |
| 8,500| 11:11 | Let it down: a) I'm relying on your help. please don't let me down.  
|      |      | b) I'm relying on your help. please don't let me down. |      |
| 8,500| 11:06 | Let it down: a) I'm relying on your help. please don't let me down.  
|      |      | b) I'm relying on your help. please don't let me down. |      |
| 8,500| 11:07 | You will be there tomorrow; you won't let me down, were you?  
|      |      | a) You will be there tomorrow; you won't let me down. |      |
| 17,000| 11:07 | Let it down: a) To disappoint someone by failing to do what you agreed to or were expected to do. 
|      |      | b) The plane took off at 8:30 a.m.                   |      |
| 8,750| 11:03 | Keep on doing sth: a) To continue to do something, or to do something again and again.  
|      |      | b) If you keep on being rude, you will have to leave the classroom. |      |
| 250  | 11:55 | Keep on doing sth: a) To continue to do something, or to do something again and again.  
|      |      | b) If you keep on being rude, you will have to leave the classroom. |      |
| 8,290| 11:17 | Keep on doing sth: a) To continue to do something, or to do something again and again.  
|      |      | b) If you keep on being rude, you will have to leave the classroom. |      |
| 3,960| 11:56 | Keep on doing sth: a) To continue to do something, or to do something again and again.  
|      |      | b) If you keep on being rude, you will have to leave the classroom. |      |
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