The Effect of MALL on Pre-intermediate EFL Learners’ Writing Performance

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Abstract
The present study aimed to investigate the effect of using mobile-assisted language learning (MALL) on pre-intermediate learners’ writing performance. The participants were selected based on the interview and PET test at the beginning of the term. Subjects were assigned into two homogenous groups, one as experimental and the other as the control group. The subjects participating in this study were 30 female pre-intermediate learners. The whole course consisted of 15 sessions and each session took 90 minutes. Both control and experimental groups, benefited from every aspects of the same teaching. To study the impact of using technology on teaching writing, first, the experimental subjects joined a Viber group. At the beginning of every week, the same topic was selected for experimental and control groups, and subjects were required to write the most relevant materials and ideas concerning the selected topic. Learners in experimental group were motivated to participate in Viber group in this way, and the control group members were required to perform writing tasks through conventional writing techniques. Two parallel writing tests (composition) were administered as the pretest and posttest for both groups. The results of statistical analysis of post-test writing scores revealed that MALL had a significant impact on the writing skill of the experimental group.

Keywords: MALL, Viber, Writing Performance, Process Writing, CALL

Introduction
Language classes all around the world have access to different modes of technology. These forms of technologies have the potential to make the task of language learning more enjoyable and bring more effectiveness to it. According to Davies (2004), the use of technology in language learning is not limited to a particular group, profession or age group. As Kosakowski (1998) states using technology starts from an early age usually at home while children are supervised by parents or tutors and continues afterwards at university and also in one’s profession. Most people think that technology is synonymous with computer but computer is just the latest in a whole series of technological tools used to assist foreign language teaching.

In the same vein, mobile devices have become integrated with daily lives through the process of domestication (Ling & Donner, 2009). Learners engaged in a chat session for the first time quickly realize that they must think and act very quickly, especially if a large number of other students are involved in the session. Alternatively, learners who are emailing each other find that they have more time to think and reflect upon what they are writing before being obliged to actually send the message. This difference in the time available for a response is keenly felt by the language learner. Synchronous communication, particularly online chat, like face-to-face interaction, is
governed by the pressures of processing real time language (levy, 2006). In making the case for media effects on learning, it is helpful to consider cognitive explanations because of their concern with the mind’s representational system, real-time language processing, and the role which attention plays in learning (Robinson, 2001).

Language learning and IT use in classroom settings has over the years clearly come out in favor of its beneficial effects on second language development (Lee, 2004; Belz, 2001). Especially in networked collaborative interactions, use of emails, bulletin boards, and chat rooms has been found to promote lively exchanges between native and non-native speakers in addition to fostering scaffolding of ideas and grammar (Toyoda & Harrison, 2002). More importantly, using IT to foster collaborative communication among students has been shown to foster proficiency in all language skill areas—speaking, writing, reading, and listening, including intercultural communication (Jin & Erben, 2007).

Decisions here lead to the aspects of language which the teacher chooses to isolate and highlight for learners to attend to and learn, within the classroom and outside of it. Then, once the language and learning goals are clarified, the teacher must consider the pedagogical approach and methodology. In a task-based approach, appropriate tasks have to be formulated and then, through the design and implementation of the task, the learners need to be encouraged to attend to the language aspects in focus and to refine their understanding and skill in manipulating them. The third set of decisions concern the choice of technologies to support the learning tasks. Different technologies have various strengths and limitations which instructors need to understand if MALL is to be used effectively. In resolving these questions, one should employ a balanced approach which addresses the different, interrelated aspects of language, the differing needs, preferences and goals of individual learners and the technological resources which are otherwise available for any given learning situation (levy, 2006). Along the same lines, the present study aimed to investigate the influence of Viber application as a kind of technology on learner’s writing based on process approach.

**Literature Review**

Today Internet users can choose between thousands of electronic editions of newspapers, online dictionaries, quizzes, gap-fill exercises and other forms of self-study material which educators have put on the web to share the fruits of their labor with other users. Many of these tools and programs are tremendous aids to language teaching and learning if they are exploited appropriately (Kötter, 2002).

Technology is increasingly a core component of teacher training courses for language teachers across all educational levels, in both the state and private sectors. Most language teaching positions now require knowledge of the theory and practice of learning technologies and digital literacy skills (Micheal Thomas, 2013). Technology alone cannot improve the delivery of knowledge then; a new computer cannot make a teacher better. Nor can it provide a magic formula to improve learning; a

Technology itself ‘does not bring about reform, but instead tends to amplify extant beliefs and practices’ (Warschauer, 2011, 115). CMC research suggests that, when communication occurs online, there is increased participation on the part of students (Bölke, 2003), the teacher’s role as the instructor shifts from disseminator of knowledge to a moderator, thus increasing student participation (Heift, 2007). Participation is equalized among students when no one student dominates (Warschauer, 1996), and the quality of language generated by students is favorably impacted by their participation in CMC (Stockwell & Harrington, 2003). Additional benefits of using CMC in order to facilitate ELL’s language learning include increasing an ELL’s access to
comprehensible input (Warschauer and Healey, 1998), providing ELLs with opportunities for output production (Blake, 2000), and giving ELLs opportunities to negotiate meaning (Fernández-García and Martínez-Arbeláiz, 2002). It can now be argued that CALL has come of age, and that we are now entering a fully integrated and naturalized phase of CALL. Digital tools for learning have become integrated elements both in the real world and also in foreign language syllabuses. In view of the development of even more flexible tools for social networking and knowledge sharing, it can be said that CALL has reached the stage of normalization (Davies, G., & Higgins, J., 1982).

Until quite recently, the primary focus of mobile devices for language learning was the PDA, but over time there has been a shift more towards mobile phones (Stockwell, 2010). This movement towards the mobile phone from PDAs is indicative of two factors. First, as described above, mobile phones have now developed to a point where they have caught up with the internet browsing and email capabilities that were previously more synonymous with PDAs. As stated earlier, the majority of university students these days seem to possess a mobile phone, and for the most part, mobile phones developed over the last decade or so have some kind of internet browsing capabilities, meaning that mobile phones are more than sufficient to complete the types of activities that were once only limited to PDAs. Second, as a PDA is generally not a device owned by most university students (who more frequently than not end up the focus of studies of mobile language learning), teachers and researchers are generally required to provide class sets for learners. This obviously entails the costs of putting together full sets of PDAs for learners to use, but at the same time, because the devices are generally on loan, learners are generally not able to use them in a completely unsupervised manner (i.e. take them home after class and use them in their own time as with privately owned mobile phones). As a result, studies into PDAs have the potential to be somewhat contrived, as they may not reflect the normal ways that learners would likely use mobile devices, unlike the use of mobile phones.

**Mobile Assisted Language Learning (MALL)**

As mobile technologies become more widely used in our everyday lives, it is perhaps not surprising that they have attracted the attention of language teachers as a means of providing learning opportunities that learners can take advantage of at a time and place that suits them (Thomas, 2013). Mobile learning has the potential to not only increase the amount of time that individual learners spend engaged in language learning activities (Stockwell, 2010), but also to reduce the psychological distance that may be associated with more formal language learning situations (Bax, 2003).

The smaller screen and limited input methods which are often associated with learning with mobile devices, for example, have an effect on the amount of information which can be provided to learners and the types of tasks and activities that learners can be expected to undertake. In addition to the physical characteristics, learners still exhibit some psychological barriers regarding learning which need to be overcome in order to make mobile learning come more into the main stream, such as the distinction between private time and study time, and the difficulties associated with studying in public places, such as while commuting (Stockwell, 2010).

As in other areas of education (Ally, 2009), this change has been reflected in the steadily growing body of recent research that looks at language learning through various mobile devices, and research has appeared that capitalizes on the expanding functionalities of these devices, including SMS (Kennedy & Levy, 2008), mobile-phone-based email (Kiernan& Aizawa, 2004), podcasting (Rosell-Aguilar, 2007), mobile phone Web browsers (Stockwell, 2007) and apps (Bateson & Daniels, 2012).
Included in this idea is that learners carry devices around with them that they can access at a
time that is convenient to them, and they can pick up the device to augment their learning in much
the same way that one may pick up a pen or a book. This means, however, that learners must feel
comfortable enough with the technology such that they do not have reservations about using it
without supervision or assistance. Prensky also suggests that these ‘Digital Natives’ are capable of
carrying out multiple tasks at once, and therefore are able to utilize different channels of information
simultaneously, such as engaging in text-chat at the same time as undertaking internet searches for
an assignment. In mobile learning, this type of multitasking becomes essential, as learners need to
negotiate with their surroundings at the same time as undertaking activities or tasks on their mobile
devices (Stockwell, 2010). One of the primary advantages that is given regarding mobile learning is
that it allows learners to ‘exploit small amounts of time and space for learning’ (Traxler, 2007, 8).

A review of literature indicates that three main points of concern have caught the attention of
researchers in terms of the use of mobile phones a discussion of which follows.

Physical issue: The physical characteristics of mobile devices have been cited by many
researchers, particularly with regard to the size of the screen and the inconvenient keypad
(Stockwell, 2008). As Koole (2009) points out, other issues that can have an effect on how mobile
devices are used are the general size and weight, the file storage capacity, hardware and software
malfunctions and processor speed. It is the total balance of all of these factors which will determine
how a mobile device can be best used in language learning.

Psychological: in both studies, there were learners who did not use the mobile tools available
simply because they did not know how. In addition, as described in Stockwell (2008, 2010), many
learners just did not feel that the mobile device (in this case a mobile phone) was an appropriate tool
for language learning, and others preferred to engage in activities in a quieter environment where
they could concentrate. When we think about this lack of use, we may conclude that the
expectations that many teachers have of learners engaging in language learning tasks and activities
using mobile devices may not match the skills, expectations and perceptions held by the learners,
and at the same time, teachers may not have a clear idea of when and where learners will engage in
them. If the discrepancy between teachers’ and learners’ views becomes too great, it is likely that it
will result in learners forming negative images of mobile learning, and prevent them from
undertaking it actively.

Pedagogical: Related to this is the supposition that because devices are used outside of class,
then they will encourage learner autonomy. Learner autonomy is achieved only when a learner
reaches a point where they are both willing and able to take responsibility for learning on their own,
two points that do not necessarily coincide (Stockwell, 2012).

It is important to bear in mind the ways in which learners typically use mobile devices for
personal purposes actually are, as this will likely affect how they are used for learning purposes. For
example, Kemp (2010) found that around three-quarters of native-speaking users regularly used
what is termed as textisms – abbreviations in spelling and spacing as a result of space limitations
and typing difficulties – when writing SMS messages to one another. It is quite feasible, then, that
learners may try to apply the same rules of textisms to messages that are written in a second
language as well, sometimes with little idea of the appropriateness in the target culture.

In pedagogical and real-world terms, mediated technologies each have qualities and
characteristics which shape their initial adoption and subsequent use. These include temporal,
spatial, material, socio-cultural and individual dimensions. The temporal dimension considers
whether the technology is synchronous or asynchronous, (or both, as in most MOOs), and looks at
the implications. The spatial dimension recognizes virtual worlds such as Active Worlds which
utilize simulated 3-D environments for language learning. The material dimension includes factors
such as the screen size, mobility, accessibility, range and so on. A good example here is the small screen and keyboard of a mobile phone which shape in various ways the kinds of communication which can occur via that medium. Socio-cultural factors, widely discussed in other works (Warschauer & Kern, 2000), include discussion of the cultures and normative behaviors which grow up around particular modes of communication (levy as cited in Donaldson and Haggstrom, 2006).

Examples taken from synchronous CALL environments such as chat sessions and the synchronous aspects of language exchange undertaken in MOO environments serve to illustrate the time pressures and the learners’ reliance upon communication strategies. For instance, in a general way Weininger and Shield (2001, 89) speak of the need for immediate, or almost immediate, responses in synchronous CMC because it is ‘constrained by temporal limitations…’ (Sotillo, 2000, 97), and von der Emde et al. (2001, 219) emphasize the use of a ‘tremendous range of communication strategies’. More specifically, Blake (2000, 120) describes the ‘predominance of incidental lexical negotiations, in contrast to the paucity of syntactic negotiations’ which leaves ‘unanswered or unsatisfactorily addressed the issue of grammatical development’. Fernandez-Garcia and Martinez-Arbelaitz (2002, 290) confirm this primary focus on resolving the meaning of lexical items as opposed to any other aspects of language when negotiating meaning in synchronous CMC. In the CALL literature, there are numerous extracts of interaction data from synchronous discourse in which specific communication strategies are in use. Schwienhorst (2002, 139), who looks at the role of repetition in synchronous CMC, gives a good example of the use of repetition invoked to save time. As he points out, asking a partner to repeat is ‘technically redundant in a MOO, where the previous text messages are at all times available’ (2002, 139). Schwienhorst argues, however, that ‘the demand for repetition is not psychologically redundant’ and ‘repetition may also be used to gain time while decoding previous utterances’ (2002, 139). The use of mobile devices to act as a means of linking learning events and the real world has been termed ‘augmented reality’ (AR) (Kukulska-Hulme, 2009), and one sense is considered as making the optimum use of the portability of mobile devices to learn.

As Stockwell (2007) argues, it possible for mobile learning to take on a rather different nature from that which takes place through fixed technologies such as desktop computers, so that rather than simply replicating computer-based activities adapted for mobile technologies, learning can be interactive not only between the learner and the technology that they are holding, but also with their surroundings. In this way, the mobile phone goes beyond the current main uses of communication tools (such as email and chat) and internet tools, but can extend to uses which capitalize upon not only what the user consciously does for language learning, but at the same time also keep track of what the learner does for other purposes either through the phone itself, or simply by where they are when they carry it. If the mobile device can act as a link between the learning world and the world that learners interact with in their daily lives, then there is a greater chance that the psychological link between mobile devices and learning can be broken down, and learners can capitalize more upon the opportunities for learning afforded them by the tools at their fingertips (Stockwell, 2012).

Mobile learning technology is more useful for doing activities outside the classroom. Such activities enable learning to be more directly connected with the real world experiments. Moreover, learning through mobile phones outside the classroom has the advantage of better exploiting the learner's free time; even the students on the move can improve their learning skills (Kukulska-Hulme, 2009). SMS-based learning is another development in the use of wireless technologies in education in which receiving wanted text messages supports learning outside of classroom and helps learners benefit from their teacher's experimentation with mobile technology (Kukulska-Hulme,A, 2009). As Morris (2011) argues, one of the biggest pedagogical challenges then becomes finding

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ways to utilize available technologies to create a smooth combination of physical spaces and virtual environments, where knowledge can be imparted that is immediately relevant to the surrounding context.

Writing

Hedge, 1998 argues that approaches to the teaching of writing can be grouped into two groups: the product-oriented approach vs. the process-oriented approach.

Product-Oriented Approach to Writing: This is a traditional approach, in which students are encouraged to mimic a model text, which is usually presented and analyzed at an early stage. This approach sought to prove “the efficacy of one grammar over another, thus perpetuating the belief that a better pedagogical approach, particularly one that focused on usage, structure, or correct form, would improve writing” (Zamel, 1982, 195). In this approach what is emphasized is raising students’ awareness, especially in grammatical structures. According to Nunan (1999), in this approach the focus is on the final product which should be a coherent, error-free text and students will initiate, copy and transform models provided by textbooks or by teachers. According to Steele (2004, cited in Hasan & Akhand, 2010, 78), the product-oriented approach comprises of four stages:

Stage one: Students study model texts and then the features of the genre are highlighted. For example, if studying a formal letter, students’ attention may be drawn to the importance of paragraphing and the language used to make formal requests. If a student reads a story, the focus may be on the techniques used to make the story interesting, and students focus on where and how the writer employs these techniques.

Stage two: This stage consists of controlled practice of the highlighted features, usually in isolation. So if students are studying a formal letter, they may be asked to practice the language used to make formal requests, for example, practicing the ‘I would be grateful if you would...’ structure.

Stage three: This is the most important stage where the ideas are organized. Those who favor this approach believe that the organization of ideas is more important than the ideas themselves and as important as the control of language.

Stage four: This is the end product of the learning process. Students choose from the choice of comparable writing tasks. To show what they can be as fluent and competent users of the language, students individually use the skills, structures and vocabulary they have been taught to produce the product.

Modeling is at the center of this approach and it has always been regarded as a beneficial source for providing feedback to students as well as being an effective teaching tool, if appropriately integrated into the context of writing process (Saeidi & Sahebkheir, 2011). Murray (1980) refers to some disadvantages of using model texts in L2 writing classes; the main disadvantage is that model texts prevent L2 learners’ creativity. Particularly the way that model texts have been used in the product-based approach has been criticized that is reading the text, analyzing it and then starting to write (as cited in Saeidi & Sahebkheir, 2011, 131). Furthermore, Escholz points out that the product-based approach encourages the learners to use the same plan in different settings, apply the same forms, regardless of content, thereby inhibiting writers rather than empowering or liberating them. On the other hand, Escholz emphasizes that when models are appropriately integrated into the content of the writing process, they become useful teaching tools. Models can lead students to be aware of various aspects of writing such as style, vocabulary, organization and structure (as cited in Saeidi & Sahebkheir, 2011).

According to Steele (2004, cited in Hasan & Akhand, 2010, 78), the product-oriented approach comprises of eight stages:
Stage one (Brainstorming): This is generating ideas by brainstorming and discussion. Students could be discussing the qualities needed to do a certain job.

Stage two (Planning/Structuring): Students exchange ideas into note form and judge quality and usefulness of the ideas.

Stage three (Mind mapping): Students organize ideas into a mind map, spidergram, or linear form. This stage helps to make the hierarchical relationship of ideas which helps students with the structure of their texts.

Stage four (Writing the first draft): Students write the first draft. This is done in the class frequently in pairs or groups.

Stage five (Peer feedback): Drafts are exchanged, so that students become the readers of each other’s work. By responding as readers students develop awareness of the fact that a writer is producing something to be read by someone else and thus they can improve their own drafts.

Stage six (Editing): Drafts are returned and improvements are made based upon peer feedback.

Stage seven (Final draft): A final draft is written.

Stage eight (Evaluation and teachers’ feedback): Students’ writings are evaluated and teachers provide feedback on it.

However, since the product-oriented approach failed to account for more important considerations including purpose, audience, and the process of composing itself was neglected, researchers and instructors gradually turned to investigating the composing process as a very complex undertaking which involves much more than studying a particular grammar, imitating rhetorical models, or outlining what one is planning to say (Zamel, 1982). The new approach was referred to as the process-oriented approach to writing.

Process-Oriented Approach to Writing: In this approach the focus is on the steps involved in drafting and redrafting a piece of work (Nunan, 1999). Its chief concern is to discover what writers do when they write, by focusing on different stages that the writers will go through. Matsuda (2003) states, the notion of writing as process was introduced to L2 studies by Vivian Zamel (1976), who argued that advanced L2 writers are similar to L1 writers and can benefit from instruction emphasizing the process of writing. Rather than the view of writing as a reproduction of previously learned syntactic or discourse structures, the process-based approach emphasized the view of writing as a process of developing organization as well as meaning. As cited in Tangpermpoon (2008), O’Brian (2004) defines the concept of process approach as an activity in which writing is regarded as the discovery of meaning and ideas. Schmitt (2002) indicates that the process approach considers the composing act as a recursive, explanatory and generative process. Myles (2002) also believes that, the process approach to writing is only appropriate when learners have the opportunity to receive feedback on their written text. Therefore, process-based approach to writing, by giving an opportunity to learners to receive feedback, allows students time to reflect and seek input as they reshape their plans, ideas and language (Myles, 2002). But in spite of all its advantages, lack of a good model can be seen as a drawback in this approach. According to Torghabeh et al. (2010), the model can partly eliminate the burden of devising content from the learners.

The process approach focuses on the steps involved in creating a piece of writing and emphasizes the fact that no text can be perfect, rather, a writer gets closer to perfection by producing, reflecting on, discussing and reworking successive drafts of the same writing (Nunan, 1991). The process approach concerns with how ideas are developed and formulated in writing because writing is considered a process through which meaning is created. According to Halliday (1985 cited in Nunan 1999, 275), there are three main purposes for writing, namely “action”
According to Zamel (1982), although the process-oriented approach to writing entails several stages, such as rehearsing, drafting and revising, all these stages interact simultaneously to discover meaning, or in other words, exploring one’s thoughts. Nunan (1991) defines the process approach as focusing on the steps involved in creating a piece of writing and emphasizes the fact that no text can be perfect, rather, a writer gets closer to perfection by producing, reflecting on, discussing and reworking successive drafts of the same writing. A more recent definition of it is provided by Kroll (2001) as following: The “process approach” serves today as an umbrella term for many types of writing courses. What the term captures is the fact that student writers engage in their writing tasks through a cyclical approach rather than a single-shot approach. They are not expected to produce and submit complete and polished responses to their writing assignments without going through stages of drafting and receiving feedback on their drafts, be it from peers and/or from the teacher, followed by revision of their evolving texts.

**MALL and Writing Performance**

Based on the reviewed literature, especially using the new widely-used application called Viber. MALL has formed new faces in nowadays technological world and is increasingly affecting learners and teachers life, so any new research can shed light on the new aspects of our educational life and makes us prepared to deal with possible problems, and also benefit from their fast-growing and pervasiveness. The current research is in this line of study, trying to show us the ways we can make use of the new advancements in mobile technology.

As Morris (2011) argues, one of the biggest pedagogical challenges then becomes finding ways to utilize available technologies to create a smooth combination of physical spaces and virtual environments, where knowledge can be imparted that is immediately relevant to the surrounding context. If the mobile device can act as a link between the learning world and the world that learners interact with in their daily lives, then there is a greater chance that the psychological link between mobile devices and learning can be broken down, and learners can capitalize more upon the opportunities for learning afforded them by the tools at their fingertips (Stockwell, 2010). Given the importance of the skill of writing and the great potential of MALL in educational contexts in general and EFL context in particular the present study sought to explore the impact of Viber application as a kind of technology on learner’s writing performance.

**Research Question and Hypothesis**

In order to address the objective of the current study, the following research question was formulated:

Does MALL have any significant impact on Iranian pre-intermediate EFL learners’ writing performance?

In line with the above-mentioned research question the hereunder null hypothesis was formed:

MALL does not have a significant impact on Iranian pre-intermediate learners’ writing performance.

**Participants**

The subjects participating in this study were 30 female EFL learners studying General English in one of the major English institutes in Tehran, Iran, who were considered as pre-intermediate learners based on the interview and proficiency test at the beginning of the term.
Accordingly, all the students were interviewed before the treatment based on PET as a proficiency test. It is a framework which identifies what knowledge students should have in each level. According to their scores in the institute’s PET test, they were divided into two homogenous groups representing experimental and control groups. All of them were at the same level of language proficiency. In these groups EFL learners were within the range of 15-21 (mean 17.2). All of them were native speakers of Persian. They are not also multilingual residing in Iran. Based on the rule of the institute, all learners were female and the study administered as mono gender.

**Instrumentation**

Instrumentation is the use of monitor and control of process variables within pre/posttest. Considering the purpose of the research, the following tests were employed by the researcher to measure the influence of MALL on their writing skill.

The instruments adopted by the researcher are as follows:

a. MALL
b. PET
c. SCORING RUBRIC

Firstly, a PET test was administered to screen the subjects and homogenize them based on their level of proficiency. The test was including reading, listening, writing, speaking and grammar and vocabulary. This test was utilized as the proficiency test. Then, two writing tests (composition) which are appropriate for pre-intermediate levels were used as pre-test and posttest. In addition, a scoring rubric was used, in which provides us with quantitative data.

**Scoring rubric**

To evaluate the effect of treatment on students’ writing, both the pre/post-test of writings were scored by the researcher and proficient raters to assure its reliability. The Scoring Rubric developed by Ferris and Hedgcock (1998) was used for this purpose because it allows examination of writings at three important levels of writing qualities, namely, content, organization and vocabulary. Based on the stipulated each aspect is scored across eight band scores: Excellent (7-8), Good (5-6), Fair (3-4), and Poor (1-2); therefore, the total score for writing is 24 points (Appendix A).

*Inter-rater reliability:* to investigate the reliability of the data, one tenth of the data was scored by another scorer and the inter-rater reliability was computed. The correlation coefficient was 98% which was quite high and acceptable.

**Procedure**

Based on the rule of the institute, each term consists of 15 sessions, students attend the classes two times a week and each session takes 90 minutes. Two classes of language learners were presented with language skills and activities provided in their text book. Writing was also an important section of the book. The language learners were introduced to different genres of writing including description, argumentation, grammar and vocabulary. Both classes were taught by the same instructor. As a quasi-experimental design that shares similarities with the traditional experimental design or randomized controlled trial, but they specifically lack the element of random assignment to treatment or control. Instead, quasi-experimental designs typically allow the researcher to control the assignment to the treatment condition, but using some criterion other than random assignment (Dinardo, 2008), two intact classes were selected. This study is an experimental research with random selection of students. A Proficiency Test was run. In that way, pre-intermediate learners were determined among them as the final participants of the study. They were divided into two equal groups in terms of quantity, namely, 15 in each one: one as experimental and
the other as the control group of this study. The teacher treated writing to the experimental and control group. Both groups, also, benefit every aspects of the same teaching. Process approach to writing was practiced in these classes and the teacher explained how the process approach to writing would be liked by following a step by step instruction of how a piece of writing can be produced. To study the impact of using technology on teaching writing, first, the experimental subjects were joined in a Viber application group and their training was on the Viber group. The control group was trained at traditional classes. At the beginning of every week, the teacher introduced a topic for both groups. The experimental learners put their opinion about the topics on the Viber group, and the control group proceeded with traditional assignment, in which they require to perform writing tasks. The teacher encouraged them to support each topic sentence by providing examples, statement of authority, statistics. Subjects were aiming to write the most relevant materials and ideas concerning the selected topic. Learners in experimental group motivated to participate in Viber group in this way. Then, the collected data from both groups were analyzed. A post-test writing showed the impact of treatment and using technology on experimental and control group’s writing performance.

Results

Analysis of the Pretest Scores

Since the study concentrated on writing learning, a writing test (composition) was conducted to both groups as a pre-test. According to the information in Table 4.1 experimental and control groups have scored almost the same. The statistical descriptions of both groups are presented below including the number of subjects, standard deviation, standard error, means as well as the mean differences of two groups and p-value of t-test difference.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>15</td>
<td>14.80</td>
<td>2.704</td>
<td>0.698</td>
<td>0.779</td>
</tr>
<tr>
<td>Experimental</td>
<td>15</td>
<td>14.53</td>
<td>2.446</td>
<td>0.631</td>
<td></td>
</tr>
</tbody>
</table>

The values of the means of the experimental and control group are near to each other. The mean of experimental group is 14.53 with standard deviation amount of 2.446, and the mean of control group is 14.80 with standard deviation amount of 2.704; Therefore, we can conclude that both groups are homogenous (Table 1), and also the difference between standard deviations of both control and experimental groups is a small amount. As it can be seen, p-value equals 0.779 which is higher than the significant level of 0.05. Thus, it can be concluded that the two groups were not significantly different in terms of writing performance prior to the treatment at the confidence level of 0.95. Being confident about the homogeneity of the two groups, we can start the treatment.

Data analysis of the Posttest

According to Farhady (1997), the purpose of the posttest contrary to pretest, is to observe the differences between the groups and the effect of the treatment. As it is clear from Table 4.1 and Table 2, the mean score is mostly increased in posttests of experimental group in comparison to their pretests. The statistical descriptions of both groups are presented below including the number of subjects, standard deviation, standard error, means as well as the mean differences of two groups and t-value of t-test difference.

To see whether the treatment was effective or not, the means of the two tests are compared through an independent t-test. If the difference between the means is significant, it can be concluded that the treatment had been effective.
Table 2: Statistical description of the group’s protest

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>15</td>
<td>16.93</td>
<td>1.831</td>
<td>0.473</td>
<td>.002</td>
</tr>
<tr>
<td>Experimental</td>
<td>15</td>
<td>18.27</td>
<td>2.374</td>
<td>0.613</td>
<td></td>
</tr>
</tbody>
</table>

As this table shows, the means of both groups have improved after the administration of the treatment. The mean of control group in posttest is presented in Table 2. As it is clear from the table, the mean of control group in posttest has increased in comparison to their pretest. This means that most of the students in the control group have improved as well in terms of writing. As it can be seen in Table 2, the mean of experimental group is 18.27 and the mean of control group is 16.93. So, there is an improvement in experimental group, and experimental group improvement is higher than control group in posttest. This is a good indication that the students have almost improved after the treatment. According to Table 2, the observed p-value is .002 which is lower than the significance level of 0.05.

Discussion

Based on the obtained results, there is a significant difference between the pretest and posttest scores in experimental group. On the other hand, there is a significant difference between the posttest scores in control and experimental group; posttest scores in experimental group were higher than control group. Therefore, it is concluded that the null hypothesis, which is MALL has no impact on Iranian pre-intermediated learner’s writings, is rejected. In addition, using smart phone applications such as Viber has significant effect on writing skill of Iranian pre-intermediated learners, SO this effect is a positive one.

Therefore, the obtained results supports the rejection of null hypothesis in titled MALL has no impact on Iranian pre-intermediated learner’s writings proposed by the researcher. The mean difference between the pretest and posttest was significant enough to support such a claim. Applying smart phones out of the class in order to learning second language skills specially writing, simultaneously with the classroom, emphasizes the practicality and feasibility of teaching writing skill in a foreign language learning situation.

Although both groups were improved their writing scores as measured through Wilcoxon Signed Ranks test, experimental group scores were higher. It can be concluded that teaching through technology improves writing skill of EFL learners and is an effective way of teaching writing. The observations suggest that the students in experimental group was able to use grammar and vocabulary more effective than before treatment, and they used Smartphones appropriately as an extra instrument for learning a second language.

Therefore it can be consider as a motivate factor, fostering improvement in vocabulary and grammar learning manifested in writing. In using such model of learning, teachers give suggestions with respect to how to use mobile in learning, and teachers provide students with how to use mobile to facilitate the process of learning.

Erben (1999) made a distinction between public and private classroom communication and noticed that when ELLs knew they were not being monitored by the teacher, especially during networked computer-mediated communication activities, their language production increased substantially. This occurred because they were more focused on getting their message across rather than being caught up on trying to be communicatively accurate. There is a place for both types of communication in the classroom and the trick for teachers is to try to create IT activities that foster both types of interaction—communicatively accurate interactions and communicatively effective interactions.

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There is no doubt that research into mobile learning is both inevitable and necessary. As Hémard (2003) argues, the overall validity of CALL applications must be viewed as being acceptable by learners with regard to both usefulness and enjoyment in order to be accessed outside the classroom. This is of course relevant to mobile learning, and there is a need to ensure that the interface makes it comfortable to use, and at the same time capitalizes upon the mobile characteristics of the device.

Simply adapting PC-based activities for mobile devices is unlikely to link to significant mobile usage due to their inherent psychological and physical limitations. This of course does not mean that mobile learning should not include some elements typically associated with more traditional forms of CALL, but these need to take into consideration not only what technologies are to be used, but also when, why and how. If the mobile device can act as a link between the learning world and the world that learners interact with in their daily lives, then there is a greater chance that the psychological link between mobile devices and learning can be broken down, and learners can capitalize more upon the opportunities for learning afforded them by the tools at their fingertips.

**Conclusion**

The main aim of this study was to realize the impact of using MALL on writing skill. To do this, 30 subjects participated in this study. They were all female, studying at one of the institutes in Tehran. The participants were selected from among 15-21 years old pre-intermediate learners. They were assigned into two equal 15-member homogenous groups by PET as an experimental and a control group. Pre-test and post-test design was applied in this study. The experimental group and control group received the parallel treatments with the same method and the same teacher which took 15 sessions and 90 minutes for each session. Because of the aim of study, the experimental group joined on the Viber (a kind of application in Smartphones) as MALL. By doing this, they were encouraged to participate in exercises about writing, and they had enough time without stress, that is normally existed in traditional classes like control group. Finally, to evaluate the effect of MALL and treatment quantitatively, the pretest and posttest of the students’ compositions were scored by the researcher using the Scoring Rubric (Ferris &Hedgcock, 1998). The raw scores were then subjected to descriptive statistics and the T-Test was run to account for the differences between the experimental and control group of the writings’ scores.

The statistical technique of t-test was utilized to analyze the collected data. The findings of the data analyzed in chapter four revealed that using MALL had a significant impact on the writing skill of pre-intermediate learners. In this study, you can find that MALL gives more benefits to students in terms of sharing their writing in an interactive social environment; thus, this can motivate the students to improve their writing skills. Students often learn as much from each other as from instructors or textbooks, but writing using MALL offers another mechanism for peer-to-peer knowledge sharing and acquisition. MALL was used because it has been showing to have the potential to increase L2 participation in pair work (Bueno-Alastuey, 2011; Milton, 2005), by acting as a control system for students not to revert back to their common L1 (Satar and O¨zdener, 2008), by reducing anxiety because of the anonymity and the lack of peer pressure which the medium provides (de los Arcos and ArnedilloSa´nchez, 2006; Yanguas, 2010), and by making students with low willingness to communicate participate more (Lewis, 2011). Furthermore, it presented the added advantage of offering an opportunity for storing the conversation for grading purposes, which was also a further deterrent to L1 use, for the provision of individualized feedback and for students’ self-revision of their productions in an economical and easy manner. The personal and social interaction via high-level writing obviously increased the children’s feelings of self-efficacy, self-regulation, and liking for writing with the CMC. It also reduced anxiety and apprehension. Bresler’s (1990)
notion that interpersonal communication allowed students to find a place to express feeling that do not usually have a place in school is another factor to explain the present findings.

A clear shift from teacher-led learning to student-led learning is m-learning allowed causes the students feel using the technology more effectively and interestingly than before. In fact, we can provide a richer learning environment through mobile phones for our language learners (Oxford, 2009). Defining the role is depends on various factors, including access to technology, administrative mandates and teacher and student goals. It remains important to integrate technology prudently and cautiously and to train teachers and students to recognize what various CALL applications can do and how they may be of assistance in students’ writing development and, more importantly, what these applications cannot do or where flaws may exist and thus do not enhance writing. Even then, language learning potential lies in students being able to recognize that automatically generated feedback on their writing cannot always be trusted (Lee, 2009).

As the demand for acquiring a foreign language increases and the people time for more formal, classroom-based, traditional language learning courses decreases, the need felt by busy users for learning a foreign language through MALL will inevitably increases. In other word, MALL can be considered an ideal solution to language learning barriers in terms of time and place. Therefore, experimental group performed much better than control group in the post-test after two months of applying Viber application. These findings positively answered the research question mentioned above. At the end of the course, it could be concluded that, the group in which MALL was used showed a significant effect on the writing performance of the learners.

There are many researches and developments towards the use of wireless technology for different aspects of language learning. Areas of mobile-based language learning are diverse among which the most common ones are vocabulary, listening, grammar, phonetics, reading comprehension. The emerging of internet made open and distance learning a means of receiving education from all parts of the world. In a short period, the attractiveness of distance learning led to the realization that various mobile devices provide a very effective resource for education. This way, many researchers tried to make mobile devices a rich resource for teaching and learning. It was, in fact, a challenging affair to cover learning tasks by a mobile phone (Kukulska-Hulme and Shield, 2008).

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