Psychological aspects effectiveness of M-learning on students’ achievement motivation in Arabic language course

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ABSTRACT

The aim of the current research is the Psychological aspects effectiveness of M-learning on students’ achievement motivation in Arabic language course. It is conducted by semi-experimental method (pre- test and Post- test plan control group). Population was the students of Islamic Azad University in Sari branch, entering 2012 that were selected in Arabic language. Two classes with 69 individuals were selected and were randomly placed in two groups. An Experimental group (26) and a control group (23). Applied tools were Herman’s Achievement motivation test, Rag Sarasota self- concept test, and a Teacher made test. Validity of the researcher- making test was proved by authoritative experts, and using crone Bach’s Alfa and re-test were estimated the reliability by 85% for testing research hypothesis, covariance analysis test was applied. The results showed that experimental group was higher than the control group in numbers mean. And using mobile cell phone affects the student’s achievement in Arabic course, increasing motivation and Self Confidence.

INTRODUCTION

In the era of globalization where a rapid technological innovation occurs, multiple forms of literacy are increasingly becoming manipulated. Reasonably, many adults who want to learn a second language are challenged by lack of time, location flexibility, and convenient access. Language learning domains can be divided into four categories; namely, listening, reading, speaking, and writing skills. However, Vocabulary acquisition is recognized to be significant to language learning. Second and foreign language vocabulary acquisition has received considerable attention in Second Language Acquisition researches in the past two decades [22]. It has been reported that learners of second language (L2) might have difficulties in understanding reading texts due to the limited vocabulary [21]. Some researches on measuring the necessities of particular amount of mastered vocabulary by second language readers to achieve adequate understanding were on the move [33]. Second languages (L2) readers might not find the necessity to recognize unknown words [22] or might as well guess incorrectly [6]. The lack of research examining incidental vocabulary learning from second language vocabulary tasks was found to be surprising. It is noted that there is a universal agreement on the critical role of vocabulary in learning a foreign language and the ubiquity of vocabulary learning tasks in second language classrooms [7,39]. Arabic as foreign language (AFL) learners in Iran faces the challenge of lacking exposure to Arabic. For the vast majority of the undergraduate students, the Arabic class is the only time to come into contact with Arabic language. Because of the class time constraint, vocabulary reinforcement is often the responsibility of the student outside the classroom [10]. The limited range of vocabulary comprehension, spelling system, and distinctive writings, all of which played significant role to keep the Arabic language teaching in a challenging stage. There is an urgent need for Arabic in Iran to find an effective self-study approach for higher educated students to enlarge their vocabulary domain. For Iranian learners of Arabic as a foreign language (AFL), lexical acquisition is a major challenge. Nevertheless, the most obvious problem faced by Iranian students in learning Arabic is vocabulary [24,40]. In general, the pronunciation aspect poses real challenges of learning Arabic besides its unique grammar, range of vocabulary, spelling system, and its own distinctive writing. Language teachers should be aware that teaching Arabic is a challenging task nowadays. A major effort to improve and simplify the teaching and learning activities is required due to the shortage of experienced teachers, adequate equipment, and resources. Teaching of Arabic language in Iran requires more

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systematic observations. The goals of acquiring the Arabic language in Persian can be consistently achievable. This will not only contribute towards enriching research in Malaysian educational perspectives, but also it will enhance the harmony and freedom of communication between Iranian and the Arabic-speaking countries. As a general fact, one could say that there is a large gap between instructional strategies and learners' outcomes in Arabic vocabulary acquisition among Iranian learners. Improving these Arabic learners' abilities in vocabulary acquisition and reading comprehension is a vital mission for Iranian students in all Iranian academic institutions. Currently, the increase in Arabic language learning enrollments and the shortage of qualified teachers might require Arabic language teachers to apply a great deal of technology for language learning and teaching. Arabic language teachers also need to understand how information technologies and language instructions are exploited for promising results [20]. Current mobile technologies can tackle these issues through mobile learning, which supports anytime & anyplace learning. In addition, Jones et al [17] noted that higher educated students need to apply a variety of methods in their academic life. Dillon and Grene believe that many distance technologies are widely used in our traditional classrooms. As reported by Hurst [14], there is a bad need to support learning process of learners within and outside the campus, by mixing various tools and methods. It is important to supply learners with the necessary academic support, design different learning situations and experiences convenient to their learning styles. Moreover, when students make the transition to higher education, they often need to accommodate and assimilate new modes of study given the initiation of new academic demands or teaching arrangements that differ from their previous experiences in school or college [17]. As a general fact, innovations in portable devices technologies have established convenient resources of learning, such as mobile communication 3G networks and related data services, smart phones, and diverse handheld computing devices. New education systems, especially in language learning, are up-and-coming through podcasting and just-in-time learning with flexibility in learning time and location. Therefore, the entire means of language learning and its characteristics via mobile technologies require adequate explorations and much effort to put demarcations. Despite the popularity of text messaging among undergraduate students, the impact of new communication technologies on academic and psychological integration during the critical period of transition to university has received little attention. As a matter of fact, many adults who want to learn a second language are challenged by lack of time, location flexibility, and convenient access [11]. However, in the recent time, the idea of using experiment in correcting emotional technology and its research impact on future design of learning is still under-emphasized [35]. In addition, a growing body of literature has tackled the concept of emotion and its effect on language acquisition; yet, this literature is not enough and in need for more and more research to probe the role of emotions in education [28]. Furthermore, Emotional factors have often been given little attention by researchers in studying and learning, especially in the context of mobile technologies environments. To better ensure the quality in mobile language learning, it is essential to explore and define its effectiveness and characteristics. Mobile learning is generally defined as eLearning realized at anywhere and anytime through mobile devices [9]. The availability of mobile information technology provides endless possibilities to support education in the world, especially language teaching and learning. The magnitude of this transition warranted significant attention to redefine learning in this new area. The roles of mobility, communication, content, meaning, and the transformative impact should be addressed, assessed, and defined for mobile learning environments. As the physical classroom gave way to more virtual communities, many trappings and constraints of the physical classroom would be minimized [34]. Indeed, mobile phones ‘are particularly useful computers that fit in pocket, are always with students, and are almost always on’ [29]. The portability and immediacy allow students to learn in their preferred time and place which is a promising advantage for these mini-electronic devices. Another temptation to the busy students is the bite-sized lessons provided by most mobile-phone learning programs [25]. Learners feel that the chunks of those lessons are more manageable than the lengthy and usually too detailed lessons on paper [36]. To individual learners, mobile phones offer cumulative lessons which maximize the exposure to the contents. Over time, this resourceful and effective exposure enhances the information processing activities, makes the activation and recognition automatic, and leads to greater attention [13]. By using short message service SMS to (1) increase the opportunity for tutor student interaction, (2) adopt a highly personal mode of communication, and (3) stimulate regular out-of-class activity, the approach aligns well with strategies for supporting a successful transition. Sharplees et al [34] also pointed out an important convergence between the new, personal, mobile technologies and the new conceptions of lifelong learning. The utilization of mobile technology in the field of education has given a rise in a novel research topic in the domain of digital learning: mobile learning. It brought learning activities out of classroom, and give learners freedom to access lessons at any time, from any location. [23] Some other supporting studies that investigate the use of various forms of mobile technologies for learning have started to appear in the literature over the past few years, and have included technologies such as mobile phones [26]. Furthermore, it is undeniable that mobile phones is the most widespread technology, where the overwhelming majority of students in Malaysia universities own and carry a mobile phone with them most of the time. Therefore, it is not surprising to see that language teachers have started to capitalize on this technology. Somehow, the types of activities that learners undertake were diverse, in many ways mirroring the types of activities that are seen in computer-based environments [36]. One
example of the mobile-phones utilization was to provide learners with a series of mini-lessons over their phones [19]. Stock well conducted a study to examine the use of a prototype mobile phone-based intelligent vocabulary learning system. It achieved this through investigating whether learners who had a choice of completing CALL activities on either a computer or a mobile phone exhibited a preference for one platform or the other, whether there were differences in how the activities were carried out on each platform, and how learners felt about using a mobile phone for language learning tasks. Furthermore, the study as well aimed to determine whether it was possible to collect extensive data about learners that may be able to be used to help them in their language learning through a PC or mobile-based system. Reported an experiment in using SMS to support learning of technical words. Spaced repetitions of the same messages were sent on different days through a SMS-based system called mobile learning tool (MOLT) developed by the authors. The survey results were very positive and supported the utilization of mobile phone-based teaching system. All participants expressed significant satisfaction and enjoyment of learning away from the classroom with the help of their mobile phones. Cavus and Ibrahim (2009) reported the widespread use of mobile phones amongst our students has led us to consider how this technology might help us to improve the motivation of students and help in teaching. ‘Constructive learning’ is based on the idea that people learn by constructing new ideas based on their current and past knowledge. In other words, ‘learning involves constructing one’s own knowledge from one’s own experiences’. Here, the learners motivate themselves during the learning process. Seventy percent of the mobile students agreed that learning with appropriate opportunities for interaction increased their motivation to use mobile device to support the learning process. Furthermore, some of the students also indicated that the mobile learning functions were friendlier, thus they would prefer learning with mobile device to learning with a desktop PC, because of the increased level of flexibility provided by the mobile device [12]. Considering the above, this study examined the Effective of mobile learning on academic achievement, self perception and motivation of in first university Year in Arabic Lesson. The aim of this research is studying effectiveness of mobile learning on achievement motivation, self concept and achievement in Arabic language. Therefore it’s hypothesis are following:

- The effects mobile learning on students’ achievement motivation in Arabic language course.
- The effects mobile learning on student Self Confidence in Arabic language course.
- The effects mobile learning on student’s achievement.

Methodology:

It’s an experimental research and applied pre-test and post- test with unrandomly (unequal) control group.

Population and sampling method

Population was all undergraduate students majoring in Judicial Sciences and fundamentals of laws, Jurisprudence in Islamic Azad University, sari branch. Those who are selected for Arabic language course in first semester in 2012-2013, two classes with 69 individuals were selected by cluster sampling method and they randomly placed in two groups.

Experimental group (26) and control group (23). For analyzing, descriptive statistics (deviations and mean) and inferential statistics (covariance analysis, ANOVA) were used.

In this survey, 3 chapters of Arabic course were designed with emphasis on mobile learning. After coordination with related professor, experimental group was taught during 6 sessions according to mentioned method, i.e., in addition to traditional teaching method, mobile learning method such as conveying concepts by means of sending, receiving and managing SMS was performed which was capable of transmitting and receiving message intellectually in any time and students had to feedback it to related professor, and control group who were taught usual method by same professor in another class. At the end of teaching both groups were participated in post- test in order to assess development motivation, Self Confidence and educational development (questionnaire with 2 equivalent versions). To analyze data descriptive statistics (mean, standard deviation) and inferential statistics (Covariance analysis (ANCOVA)) were used.

Research tools:

For measuring and evaluating variables, three scales are applied depending on variable:

A: teacher- made Arabic language test:

There weren’t any standard tools for measuring achievement in general Arabic language course- Research cooperator master who is a Arabic master in university, planned test questions according to the two- dimensional table (goal, content) and regarding to get Arabic language course, to match questions test with goals and contents which are studied. Teacher–made Arabic language test was applied in pre- test and post – test method for measuring achievement.

Properties tables were prepared for validity of test questions. That includes content, educational number of questions for each of them. Also this teacher- made Arabic language test was given to five Arabic masters to validate this test. For reliability, re-test method was applied. Among 30 questions, 20 questions were applied.
After reliability of the test—further test during a week indicated that correlation level for two times of conducting test equals with \( r = 0.85 \) and estimated 0.001 reliability level.

**B: Herman's achievement motivation questionnaire:**

Herman's achievement motivation questionnaire includes 29 questions. The changes range from 29 to 116. The higher scores implied higher achievement motivation and lower scores imply lower achievement motivation.

Herman's used content validity method for estimating validity that is based on earlier research about achievement motivation. He, also estimated two confidence correlation of two questions by progressive behaviors that indicated a high validity for the test \( (r = 0.88) \). After three weeks, for estimating validity, it used kronbach's Alfa and re-test method. Those were 0.85 and 0.82, respectively.

In current research, more over common learning system, experimental group learned about mobile cell phone learning systems, too. The control group was thought traditional learning.

Each of the two groups used post-test for measuring achievement motivation. Self Confidence and achievement at the end of treatment. T-test was applied for testing research assumptions.

**Methodology:**

In this survey, 4 chapters of Arabic course were designed with emphasis on mobile learning. After coordination with related professor, experimental group was taught during 6 sessions according to mentioned method, i.e., in addition to traditional teaching method, mobile learning method such as conveying concepts by means of sending, receiving and managing SMS was performed which was capable of transmitting and receiving message intellectually in any time and students had to feedback it to related professor, and control group who were taught usual method by same professor in another class. At the end of teaching both groups were participated in post-test in order to assess development motivation, Self Confidence and educational development (questionnaire with 2 equivalent versions). To analyze data descriptive statistics (mean, standard deviation) and inferential statistics (Covariance analysis (ANCOVA)) were used.

### 2. Research results:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean squares</th>
<th>( F_n )</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement motive</td>
<td>Pretest score</td>
<td>1791</td>
<td>1</td>
<td>1791</td>
<td>63/572</td>
<td>0/000</td>
</tr>
<tr>
<td></td>
<td>Studied groups</td>
<td>1/899</td>
<td>1</td>
<td>1/899</td>
<td>67/436</td>
<td>0/000</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>1.296</td>
<td>48</td>
<td>0.028</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5/172</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self confidence</td>
<td>Pretest score</td>
<td>3/015</td>
<td>1</td>
<td>3/015</td>
<td>73/041</td>
<td>0/000</td>
</tr>
<tr>
<td></td>
<td>Studied groups</td>
<td>1/638</td>
<td>1</td>
<td>1/638</td>
<td>39/679</td>
<td>0/000</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>1/899</td>
<td>46</td>
<td>0.041</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6/956</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Educational achievement</td>
<td>Pretest score</td>
<td>72/302</td>
<td>1</td>
<td>72/302</td>
<td>82/959</td>
<td>0/015</td>
</tr>
<tr>
<td></td>
<td>Studied groups</td>
<td>57/981</td>
<td>1</td>
<td>57/981</td>
<td>66/527</td>
<td>0/000</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>40/091</td>
<td>46</td>
<td>0.072</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>165/888</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The result of data analysis in table 4 shows that after modifying pre-test scores, in the safety level of 95% \( (\alpha = 0.05) \), there is a meaningful difference in the students’ average scores in pre-test and post test of achievement motivation variables. Self Confidence and educational achievement, as \( (P\text{-Value} < = \alpha \ 0.05) \). Therefore, with the safety of 95%, one can assert that the average scores of achievement motive, Self Confidence and students’ educational achievement is not the same in pre-test and post-test and statistically speaking, there is a meaningful difference between these scores in a way that the scores of achievement motive, self-supposition and students educational achievement has increased in post-test.

The result of data analysis in table 4 also shows that in the safety level of 95% \( (= \alpha \\ 0.05) \), using mobile learning has increased the post-test of achievement motive. Self Confidence and educational achievement of the control group compared to the evidence group in the field of ….; as \( (P\text{-Value} = 0.000 < = \alpha \\ 0.05) \). Therefore, as the students had been monotonously spread in the control and test groups, it can be inferred that the existing difference results from the effect of mobile learning; therefore, with the safety of 95%, one can assert that mobile learning has increased students’ achievement motive, Self Confidence and educational achievement in the fields of juridical science, jurisprudence and law basics.
**Discussion and Conclusion:**

This discussion deals with the effect of mobile learning on the students’ achievement motive, Self Confidence and educational achievement in Arabic language course. In the 21st century, serious regard towards pedagogy is of important goals of every government, particularly the quantitative increase of students with regards to the lack of facilities and resources, has made pedagogy improvement the first priority, in a way that the teachers and scholars of pedagogy believe the fact that suitable learning environment is primarily important in quality improvement and depends on desirable physical, mental and social environment at school, in proportion with human relations, that is, when the school environment is open, creative and moral, learning will be continuous, enjoyable and deep. Today with the emergence and growth of new technologies, we see a shift from teacher-centered, class-centered and book-centered pedagogy toward comprehensive pedagogy for every person everywhere and in every time. Achieving this goal demands possibilities and facilities that can present independent, eternal, long-term and effective pedagogy along with traditional and typical approaches. Growth in wireless connection technology innovations has provided the possibility for pedagogical experts to create new teaching methods. By means of wireless connection technology, pedagogical activities can be done anytime and anywhere. The tendency toward educational media which are more mobile and can be used for individual training has made learning for learners more exciting.

The result of the research proved that mobile learning increases learning motivation in university students. The outcomes of this part of the research have been compatible with the findings of Poorjamshidi [30], Papzan & Soleimani [31], Salimi [32], Naeemi Hoseini and the colleagues [27], Ayati & Sadati [1] and they have shown in their studies that educational multimedia, along with creating multi-sensory environments, can lead to increasing learners’ motive. The outcomes of the present research are also compatible with that of Alkatin, Tsai [37], Jimoyianis, Komis [16], Dela, Cal-Fasoni [5], Chuan Kung & Chuo [4] and Wang & Ryu [38]. These researchers consider the use of multimedia software effective in motivating students and directing their attitude.

The second finding of the research has shown that using mobile learning is facilitative to university students’ achievement in Arabic course. The findings of this part of the research along with the findings of computer-based pedagogy increase educational achievement of the learners and bring them a positive attitude toward institutional activities. Jimoyanis and Komis, according to their studies, have concluded that using computer in classroom will increase learning and educational achievement of the students. Also, in Poorjamshidi’s studies, the direct effect of computers on learning different courses is approved. This fact signifies the proper use of computer technology and the attached equipments, particularly multimedia, in teaching and learning and helps to improve the teaching-learning process. Salimi & Poorjamshidi, Khazaei and the colleagues (2001), Dela, Cal-Fasoni, Chuan Kung & Chuo, Tsai, Ioannou et al, in their studies, have concluded that students, by means of these facilities, have gained more educational achievement and these tools have improved both university and school students’ English language skills. The studies are also compatible with the results.

The third finding of the research proved that mobile learning has increased students’ self-supposition in Arabic course that, with regards to the difference between the averages of the three hypotheses of the research being meaningful, during the research process, as a result of the increase in the average score of the test group in motive, self-supposition and educational achievement variables, we saw the test group students learn more than the control group students. During the period, the university students attended the class with more interest and attention and would actively cooperate with their group and resolved their problems together through sms. Students remembered more information through sms and showed more interest in learning Arabic language and working with this software. The results of this hypothesis are compatible with the findings of Jimoyanis & Komis, Poorjamshidi, Dalakel Fisooni, Almakhlafi and Tsai, Jackson and Ayano and the colleagues.

If the results of this research proves the effectiveness of mobile phone use in teaching and learning, then there will be no doubt and worry about using multimedia in pedagogy.

In a final conclusion, it can be possible, based on the previous researches, to announce the result of this research as electronic mobile phones can change the learning environment, make it interesting, lead to attracting university students and learners to the learning process and inject reinforcing stimuli into the learning process in order to improve the educational quality and increase learners’ motive to learn courses. By increasing motive, students’ attempts for learning increases and their scores will increase as a result. Motive increase and score improvement will result in a positive attitude in students toward themselves and their abilities and will finally lead to positive Self Confidence. Thus, based on the findings of the research, it is proved that using electronic mobile devices (mobile phones), as far as motive, Self Confidence and educational achievement are concerned, has had a significant effect on the students’ learning.

Since the electronic mobile devices (mobile phones) can optimize teaching and learning and provide various and rich pedagogical environments, our pedagogical system must make a change in the educational process and teaching programs by a proper exploitation of these devices. Multimedia can be used as a useful
pedagogical tool in all stages of educational fields, as it has the potential capabilities and possibilities for empowering to optimize educational affairs.

With regards to its novelty, freshness and unique attractiveness of presenting educational subjects through mobile learning (mobile phones), has appealed to the learners and naturally led to its active learning. Therefore, it is suggested to the officials, because of the unique qualities of electronic mobile devices (mobile phones, notebook computers, ...) to conduct teaching a second language like Arabic along with software programs, so that the learners’ tendency, interest and educational improvement will noticeably arouse and the other classes and courses whose pass is always accompanied by fear and worry (math & English ...), will change into warm, active and joyful classes where the students are mainly in charge. This has helped a lot to reduce teachers’ working hours and made them more active and creative. Teachers must be encouraged to use the internet in teaching which will improve educational quality and learning and also enhance enjoyment and excitement and reduce tiredness. Such an assertion has been approved in many researches. Through electronic mobile devices one can make educational subjects noticeable and thinkable, and by creating numerous attractions, grant them real appearance. The computers being much patient, has been facilitative to the users and brought fortune to the use of them. The immediate feedback of mobile phones makes learning more effective. The numerous options, exercises and experiences given to the users is another advantage of computers.

It is worth considering for educational officials to acknowledge the possibilities and advantages of mobile phone use and new technologies and take their importance into account for educational programming.

Regarding the fact that mobile phone use improves students’ scoring level in classroom exams, enhances their attitudes and increases their eagerness to take part in learning processes, teachers should attempt to change their teaching approaches and reduce the number of their lectures to encourage more class participation. This will lead students to agree to learn basic computer skills. As a result, they will learn more in less time. This will be helpful in strengthening self confidence and self esteem in them.

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