

The Effect of Online Learning on Grammatical Accuracy among EFL Upper-intermediate Learners

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Abstract—The present study sought to investigate the effectiveness of online learning via smart phone on Iranian EFL learners' grammatical accuracy improvement. A number of 20 upper-intermediate male and female EFL learners selected as the population. The population selected from Pishtazan English Institute of Janah, a city in Hormozgan province of Iran. To achieve this aim, the researcher adopted the experimental approach. The researcher chose two groups of the upper intermediate learners: one group consisting of (10) students was used as an experimental group and the other also consisting of (10) students was used as the control group. The traditional method was used in teaching grammar to the control group, while the online classroom was used to the experimental group. To analyze the data the frequencies and percentage of each item in the questionnaires computed with the aid of SPSS. The findings showed that there were significant differences between the experimental and the control groups and the experimental group who use online classroom had better performance. The finding of this study is to support the implement of useful ideas and new materials into Iran curriculum and teaching policies to benefit from the boring technologies in the Iran context.

Index Terms—online learning, grammatical accuracy, EFL upper-intermediate learners, flipped classroom

I. INTRODUCTION

As Hajebi (2020) says “Flipped teaching and learning in education has not only changed the traditional learning patterns and teacher-center learning, but also improving student learning achievement and increase interaction among learners and teachers” (p.1).

Technology, with distinctive features such as mobility, reachability, personalization, In recent years, as young users in Asia have been communication with each other via mobile messaging application (such as LINE, Whats App and Wechat), research into the role of such instant and text messaging technologies in education has revealed their positive effects on providing platform for socializing, sharing information, and communicating (Sweeny, 2010). Flipped learning is redefines the instructional procedure by having student self- study lecture or learning materials out of class in order to preview and acquire new knowledge and then guided to students to complete homework (Bergmann & Sams, 2012).

This study aims at highlighting the effectiveness of online learning via smart phone on Iranian EFL learners' grammatical accuracy improvement. The main focus is on how EFL students update themselves to improve their skills through technology in an online learning. The other crucial interest is to find out more about the ways in which those who are engaged in teaching and learning use mobile technology in their daily learning practices. In fact, the research attempts at raising the interest on how this new wave of technology can be beneficial for students so as to work with these devices not to work against them. In other words, this study tries to examine the effect of online learning via smart phone on Iranian EFL learners' grammatical accuracy improvement. This study tries to find out more about how mobile learning is becoming increasingly integrated within EFL students' daily life, especially in teaching and learning foreign languages. The current study attempts to investigate the materials students are using to enrich their English grammatical accuracy. It also tries to clarify the new concept of learning among learners. Therefore, it aims to provide teachers with the necessary guiding lines to start implementing mobile devices into their courses and to prepare the EFL students with new skills. On the other hand, the results of this study would give the student the opportunity to well-understand the concept of online learning via smart phone and its impact on the formal learning. The finding of this study is to support the implement of useful ideas and new materials into Iran curriculum and teaching policies to benefit from the boring technologies in the Iran context. This finding can be effective for teachers to develop the autonomous students and also students can engage in learning and learn better than traditional learning. This study has some limitations and delimitations that as it is crystal clear any research is by its very nature limited. No research can be perfect and this study is no exception. During the process of completing this study, there were some limitations which made it take longer time to accomplish the goals which were set at the very outside of the study. One of the most important problems was limited time. There are also several limitations have to be noted here. Another main limitation of study related to the limited number of participants of the study. The subjects of this study are 20 EFL students at language institute,

there are not equal proportions of male and female participants in each group and the finding of this study cannot generalize to students of other levels. One of main delimitation of the study is that it is not possible to test all students of Iran or Bandar Abbas and the researcher just tests 20 students, so the results of the study cannot be generalized to larger population.

This research attempts to answer the following question:

1. Does Iranian EFL grammatical accuracy improve in the online classes by using smart phone?

Mobile-assisted Language Learning

With the tremendous growth of mobile technologies, Mobile-assisted Language Learning (MALL) has become increasingly common. It is significant to recognize that MALL is not a fully independent field. In addition to its obvious relation to second language acquisition (SLA), Hubbard and Stockwell (2013) claimed that MALL depends on two major bodies which are mobile learning and computer-assisted language learning. Mobile-assisted language learning is a new wave of educational technology uses a wide range of mobile devices. Kukulska-Hulme and Shield (2008) explicate that unlike CALL, MALL opts for a variety of handheld technologies, often with internet connection, ranging from ultra-portable laptops and handhelds to smartphones, mobile phones, MP3 and MP4 players, digital voice recorders and cameras. Thus, Mobile-assisted Language Learning is a branch of technology-enhanced learning that includes face-to-face, distant or on-line (Amouzegar & Khodashenas, 2013). In fact, MALL has the potential to assist learners and to reinforce their learning process at the exact point of need and in ways that are congruent with the learner's lifestyle (Kukulska-Hulme & Shield, 2008). MALL then gives EFL learners the opportunity to learn languages not only in a classroom but also outside a classroom; whenever they desire and wherever they are.

Approaches to Mobile-assisted Language Learning

Mobile learning is considered as a new dimension in the educational process. Indeed, the shift has continued and the changing approaches and theories have increasingly proliferated. In an attempt at providing a systematic review of MALL research within the specific field of SLA, Grönlund and Viberg (2012) found that the two main approaches that dominate the literature are content-related and design-related studies. However, the theories and approaches applied in MALL often originate from various theories of learning, including Behaviorism and Constructivism. Taking into consideration the mediated nature of human mind, Grönlund and Viberg (2012) added that MALL research often relies on other learning theories such as Situated Learning Theory, Collaborative Learning Theory, and Informal and Lifelong Learning Theory. In addition, the currently popular approach to EFL is the Communicative Approach (Beatty, 2013).

Content-related

Content-based or content-related studies address an approach that concentrate on the development of activity types and learning materials. This type of study often focuses on more formal language learning contexts and considers mobile technologies as a means of delivering content to learners (Kukulska-Hulme & Shield, 2007). These approaches support teacher-learner communication and rely on mobile devices to deliver content rather than supporting learners to communicate. Divitini and Petersen (2004) explained that little or no emphasis is given to providing learning support where the learner is able to interact with other learners or parties that can support the learning process (cited in Kukulska-Hulme & Shield, 2007). In other words, content-related activities may support teacher-centered approach.

Design-related

Kukulska-Hulme and Shield (2007) consider design-related approaches as those that focus on design issues and learners' needs. Studies in this area are related to developing learning materials and activities for mobile devices as well as text-based content. Design-related approaches tend to refer to the informal nature of m-learning. Kukulska-Hulme and Shield also added that design-related differ from content-related approaches in that their emphasis is less on a traditional educational paradigm, in which the teacher provides materials to learners (2007). Hence, design-related activities can support learners' autonomy.

Behaviorist Theory

Applying behavioral theory to educational technology, namely m-learning, the latter provides the ideal opportunity to present learning content (stimulus), gather learners' responses (response), and provide appropriate feedback (reinforcement) (Naismith et al., 2004). To illustrate, text messaging is one of the learning applications that relies on behaviorist theory. Many researchers (Alemi, Sarab & Lari, 2012; Derakhshan & Kaivanpanah, 2011; Kim, 2011; Stockwell, 2010) conducted their studies relying on behaviorist theory through content delivery by text messaging to mobile phones (Houser & Thornton, 2004). Other examples of behaviorist learning with mobile technologies are MMS, Voice recorder soft wares, drill and feedback, Mobile Response System such as clickers, and so many other materials used to facilitate learning through mobile devices (Keskin & Metcalf, 2011).

Constructivist Theory

In the constructivist theory, learners create inner mental models to acquire knowledge about the world. In other words, constructivism views learning as an active process in which learners build new ideas upon both their current and past knowledge. It is worth noting that there are two branches of constructivism; social constructivism and cognitive constructivism (Zhang, 2010). In order to transform learners from passive recipients of information to active constructors of knowledge, both appropriate learning environment and tools should be provided. Mobile devices offer a unique opportunity for learners to be active constructors of knowledge by embedding them in a realistic context and offering access to supporting tools (Naismith et al., 2004). Handheld games, interactive podcasting, emails, and

multimedia are among many examples of constructivist activities using mobile technologies (Keskin & Metcalf, 2011).

Collaborative Learning

According to Naismith et al. (2004), collaborative activities are those that promote learning through social interaction. Collaborative learning is an extraordinary help, assert Tomei (2004), especially for the online learning as it improves interaction and peer-communication where the biggest voice will be from the learners. Applying to mobile learning, learners are enabled to learn a language in collaboration with others by sharing files, data, and providing means of coordination without attempting to replace human-to-human interactions. Mobile devices can be used collaboratively in real time through different MALL applications. For instance, EFL learners can exploit their digital devices to learn in a collaborative way through sending SMSs, sharing songs, data, and videos via Bluetooth, and speaking in group through Facebook.

Situated Learning

The situated learning theory is the combination between constructivist and social learning theories, claimed Tomei (2008). Mobile devices are well suited to context-aware activities because of their availability allowing the learner to extent the learning process beyond the formal environment into authentic and appropriate contexts of use (Naismith et al., 2004). Beatty (2013) illustrated by imagining the situation; language learners, standing in a city street and looking for a good restaurant, may download a map and a short restaurant-related vocabulary lesson in order to engage in a conversation with native speakers asking for directions. Thus, situated learning requires knowledge to be presented in authentic contexts in order to be practiced within. Activities such as taking observational notes, taking pictures, recording students own reflections, listening to expert commentary, and many other situated learning activities can be facilitated through different mobile devices (Naismith et al., 2004). Indeed, the digital devices help language learners to grasp the information from the time and place surrounding them.

Informal and Lifelong Learning

Learning occurs not only inside the classroom, but also outside the classroom. According to Naismith et al. (2004), informal and lifelong activities support learning outside a dedicated learning environment and formal curriculum. It is learning all the time, influenced by one's environment and particular situations. Informal and lifelong learning intersects with "Just-In-Time-and-Place (JITP) Learning" (p. 274) in which learners acquire, conceptualize, and understand information while facing particular situations (Tomei, 2008). Informal and lifelong learning may be intentional, through deliberate learning activities, or it may be accidental, stated Naismith et al., (2004), by acquiring information through reading newspapers, watching television, or even observing the world, or even experiencing an accident. Social networks, such as Wikipedia, Facebook, Twitter, You tube, and so on and so forth, illustrated Keskin and Metcalf (2011) are some of various types of informal and lifelong activities that can be with mobile technologies due to their reduced size and ease of use.

Communicative Approach

Mobile language learning applications may provide the potential to support the communicative approach. The latter is one the current popular approaches to EFL as it encourages learners to interact with others, communicate, and negotiate language tasks, claimed Beatty (2013). Accordingly, Zhang (2010) asserts that the communicative approach concentrates on autonomy of learners and authenticity of materials. Pictures and videos, namely the ones shared in social media, become stimuli for conversations and negotiations of meaning.

II. METHODOLOGY

The researcher adopted the experimental approach. The researcher chose two groups of the upper intermediate learners: one group consisting of (10) students was used as an experimental group and the other also consisting of (10) students was used as the control group. The two main variables of the study were online watching and learning and grammatical accuracy. The dependent variable was grammatical accuracy and independent variable was online watching and learning.

Participants

A number of 20 upper-intermediate male and female EFL learners selected as the population. The population selected from *Pishtazan English Institute of Janah* a city in *Hormozgan* Province of Iran. The participants' ages were between 15 to 20 years old. However, the 20 participants randomly divided into two experimental and control groups. Both control group and experimental group had equal number of 10 learners. All the learners selected from the same native language that is Persian.

Instruments

In order to obtain measureable data with which the results of the current study could be statically analyzed, the following instruments were utilized:

The first instrument was the achievement test prepared by (Samar, 2016) to measure the participants' achievement was used as a pre-test applied before the experiment and as a post-test applied after the experiment, a test which adopted to normalize the participants.

The test aimed at measuring the effect of using online classroom on learning English grammar among English learners. The second instrument was learning motivation scale was prepared by (Samar, 2016).

Procedure and Data Collection

In order to conduct the study, the researcher administered the achievement test to measure the participants' achievement was used as a pre-test applied before the experiment and as a post-test applied after the experiment, a test which adopted to normalize the participants. Then, preparing the pre-posttest, worksheets and quizzes and also designing a motivation scale taking into account English teachers' opinions to measure the effect of online classroom on students' learning motivation among learners. This scale was used before and after the experiment with the control and experimental group.

III. RESULTS AND ANALYSIS

Some statistical analyses were done for answering the research question and hypothesis designed for this study.

The null hypothesis says that: There are no important differences between scores in the posttest which is based on grammar through online class and the pretest students who learn it through taught traditional method. To understand the result means and standard deviations for pre-test and post-test were computed.

TABLE 1.

T.TEST INDEPENDENT SAMPLE RESULTS OF DIFFERENCES BETWEEN THE EXPERIMENTAL AND THE CONTROL GROUP IN THE GRAMMAR POSTTEST

Domain	Group	N	Mean	Std. Deviation	t	Sig. value	sig. level
Knowledge	Exper.	10	5.874	1.461	5.143	0.000	sig. at 0.01
	Contr.	10	4.026	1.763			
Comprehension	Exper.	10	4.312	2.028	3.440	0.000	sig. at 0.01
	Contr.	10	2.402	2.006			
Application	Exper.	10	4.211	2.435	5.504	0.000	sig. at 0.01
	Contr.	10	1.608	1.512			
Analysis	Exper.	10	6.033	1.559	4.774	0.000	sig. at 0.01
	Contr.	10	4.005	1.842			
SUM	Exper.	10	20.043	5.027	6.741	0.000	sig. at 0.01
	Contr.	10	12.041	5.381			

Table (1) showed that the T. computed value (6.741) is larger than T. table value (2.66) in the post test, that showed some significant differences at ($\alpha = 0.01$) in the total for the post-test. The mean of the post-test for both groups was different and for the experimental group was (20.043), while the mean for the control group was (12.041). The findings showed that the students' achievement in English grammar through online classroom was more effective than the students who learnt it through traditional method.

TABLE (2):

T.TEST INDEPENDENT SAMPLE RESULTS OF DIFFERENCES BETWEEN THE EXPERIMENTAL AND THE CONTROL GROUP IN THE POST LEARNING MOTIVATION SCALE

Domain	Group	N	Mean	Std. Deviation	t	Sig. value	sig. level
Self-efficacy	Exper.	10	28.437	3.397	4.711	0.000	sig. at 0.01
	Contr.	10	23.642	4.347			
Task value	Exper.	10	35.248	5.138	4.312	0.000	sig. at 0.01
	Contr.	10	31.335	6.176			
Control beliefs about learning	Exper.	10	24.263	2.413	3.974	0.000	sig. at 0.01
	Contr.	10	20.974	3.490			
Achievement goal	Exper.	10	22.053	2.837	4.002	0.000	sig. at 0.01
	Contr.	10	18.816	4.039			
SUM	Exper.	10	110.001	5.027	5.606	0.000	sig. at 0.01
	Contr.	10	94.767	5.381			

Table (2) showed that the T. computed value (5.606) is larger than T. table value (2.66) in the post test that shows that there are important differences at ($\alpha = 0.01$) Learning Motivation Scale between two groups and the results are different in experimental and control group. The mean for the post-test in the experimental group was (110.001), while the mean of the control group was (94.767). These findings showed that developing students' motivation for English learning is more effective in experimental group as an online classroom than the control group as a traditional method.

IV. CONCLUSION

The findings of the study indicated online model of instruction had a significant positive effect on EFL students' English development. As it claimed in the result the students in experimental group had a better performance on the

grammar achievement posttest and they showed positive change on the post- test of the learning motivation scale after the implementation of online classroom. This showed that developing students' motivation for English learning is more effective in experimental group as an online classroom than the control group as a traditional method.

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