

Application of Virtual Team-working in Teaching Productive Skills to Iranian EFL Learners

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Abstract—Application of Virtual Team-Working has provided opportunities to solve the limitations of the traditional ways of teaching and learning. This study investigated, how using virtual team-working could affect teaching productive skills of Iranian EFL learners. A group of 30 Iranian upper intermediate female EFL learners, aged 18-31, in Isfahan Air Base were arranged in two groups. They set up their virtual groups and continued team-work activities during 6 weeks. This study employed a triangulated research approach involving questionnaires, pre/post productive tests, observation, and interview to increase the reliability of the study. Pre/Post productive tests were used to compare the participants' speaking and writing productions before/after the project, and they were evaluated based on the comparison of their mean scores by Matlab software. A chi-square test was run for each test to see whether the differences between observed and expected results were significant. The results showed that the mean scores of the participants in the posttest were significantly higher than that in the pretest in experimental group. Moreover, the attitudes of the participants towards using virtual team-working were surveyed by using questionnaires. The results of this study may benefit teachers, students, and those involved in teaching and learning.

Index Terms—productive skills, virtual team-working, technology, Whatsapp and Viber, Iranian EFL learners

I. INTRODUCTION

Writing and speaking, although comes late in the process of acquisition of a language, they form an important part of language learning and requires special attention, as productive process skill. It is the process of converting thoughts and ideas into written and spoken communication. Students' writings and speaking also need some feedback and correctness. In this way, students try to write and speak better. There are mobile applications through which one can get others' feedbacks. The activities on these virtual Team-Working are based on interacting and collaborating, which enhance learning. English teachers are greedily looking for better new ways to teach productive English skills. Many Iranian students believe that writing is the most boring, tedious, and uninteresting activity in an English class. The rapid development of technology has provided these opportunities for them. Internet and mobiles are essential needs for everyone in general and for educators in particular. Mobile devices applications are quickly becoming one of the main learning tools used in English language learning.

As the Internet takes up residence in our homes, schools and institutes, we no longer have the prerogative to view technology as optional. People are increasingly, becoming involved in different online activities. In terms of writing and speaking, member in online groups can encourage and motivate them to write and speak carefully and correctly, so an important factor, which affects second language learning, is to provide learners' motivation to participate actively in Virtual Team-Working via virtual spaces.

Virtual team on mobile applications is an online activity in which interaction becomes involved in commenting on each other's ideas, sharing feelings and receiving comments. A virtual team is a team that is easy to create, set up, manage, and can be updated frequently. It requires only basic access to the Internet, and android mobile devices. Virtual Teams are interactive teams that provide learning both inside and outside of the physical classrooms. In recent years, many educators have been investigating the potential of online collaborative teams for teaching and learning language. Several studies have focused the advantages of using online courses in foreign language classes to develop productive skills, however, using Virtual Team-Working in education, in Iran, is still novel and the studies on this domain is not sufficient.

Responding to the increasing decentralization and globalization of work process, many institutes have responded to their dynamic environments by introducing virtual teams that collaborate by communication technologies across geographical, temporal, cultural and organizational boundaries to achieve common goal in their organizations outputs. Virtual teams are growing in popularity (Cascio, 2007).

Writing and speaking process is a frustrating activity for many students. Unfortunately students tend to focus on grades rather than learning. In spite of studying English for a long time in foreign language institutes in Iran, the result is not satisfactory. Most of the graduated students cannot communicate in real context, especially in terms of writing

and speaking. To overcome this problem, it is necessary to implement different innovative methods to teach writing and speaking in an authentic environment. However, many researchers have supported the effect of online teaching on learners' language performance, many institutes in Iran do not utilize virtual learning in their educational program to teach English. If English teachers have the required online mobile services to choose an enjoyable method for teaching writing, speaking and make the students motivate to produce language meaningfully, it may not take a long time to see students' improvement in writing and speaking.

In virtual team-working spaces, students can publish their own writing, speaking and receive comments from outsiders. The opportunity to take part in discussion and further use of the target language can provide for them higher level of writing and speaking proficiency. This study was an attempt to investigate the effects of using virtual team-working on teaching productive skills, to change the traditional methods of instruction of writing and speaking and to see if better results would arise. This study could be a very significant one in the absence of similar studies in terms of variables and settings in the Iranian context. Virtual team-working are highly interactive, so teachers could encourage students to be active in online activities. This study can open up opportunity for English teachers to apply an out of class learning.

II. LITERATURE REVIEW

As mobile devices are becoming increasingly ubiquitous, many researchers and practitioners have incorporated the technology into their teaching and learning environments. The applications of mobile learning range widely to higher education and corporate learning settings, from formal and informal learning to classroom learning, distance learning, and field study. Despite the many forms of and increasing services offered by mobile learning, it is still immature in terms of its technological limitations and pedagogical considerations (Traxler, 2007). And although some researchers offer a framework for theorizing about mobile learning with conversation theory and activity theory (Sharples, Taylor, & Vavoula, 2007; Uden, 2007; Zurita & Nussbaum, 2007), instructional designers and teachers need a solid theoretical foundation for mobile learning in the context of distance education and more guidance about how to utilize emerging mobile technologies and integrate them into their teaching more effectively (as cited in Park, 2011).

Recently, the terminology has been altered for web based learning; it was called as technology based or distance learning, online education, in the end it is now called e-learning and web based learning. A variety of basic language skills can be developed with the help of web- based language learning activities. It is known that; there are four basic skills in English which are listening, speaking, writing, and reading. These skills can be put on the web and made interactive in a variety of ways (Amiri, 2012).

One of these ways is internet communication tools such as E-learning, E- mail, Weblogs, weblogs, chat in a group via mobile phone through using the known application such as Whatsapp, Viber. One distinguishable arena of research on virtual teamwork, different from those of typical classroom teamwork, is the use of technological tools in virtual teamwork. The success of a virtual team depends on the balanced integration of technologies and team activities.(as cited in Sarica, 2008). "The barrier of location for people in different parts of the world has been removed by some of the latest technologies such as the internet, mobile devices such as Personal Digital Assistant (PDA' S), the web, iPhone" (Sarica & Cavus, 2008).Web-based technologies and powerful internet connections provide various new possibilities for the development of educational technology.(as cited in Sarica & Cavus, 2008).

As Sarica (2008), stated that Because English is the only language that has attracted many people around the world, for the most part due to the globalization the interest in using the technology has been increased. And as a result Students learn faster and easier than before because of the application of technology in educational institutions. It is quite clear that English has become a necessity today. For this reason, it could be recommended that; going through internet is an alternative way to study English. Technologies and powerful internet connections prepared various new possibilities and latest trends for teachers and learners. In fact as the electronic media as internet and the use of virtual learning in education are the inseparable elements of education in the global atmosphere today, special attention must be paid on how to use the information communication technology and virtual learning environment to meet the demands of era as information and communication technology has become a crucial part of the modern world (Amiri, 2012).

Nowadays, each country emphasizes applying the information and communication technology as the foundation of their educational systems. The rate of technologies progress in the last decades has announced a new era in our understanding of promoting English proficiency and shows some of the advantages of using ICT and VLE in the classroom (Hayati, 2012).

To achieve the objectives of the study, the following research questions incorporated:

1. Are there any significant differences between the achievement of the experimental group and control group in English productive skills?
2. Does the application of Virtual Team-Working affect teaching productive skill to Iranian EFL?

III. METHOD

A. Participants

The design of this study was a mixed method, both experimental and descriptive one in order to investigate the impact of Virtual Team-Working in teaching English to Iranian EFL. The research was done at Air Base in the city of Isfahan, Iran. First, 30 female adult English learners (age range = 19-31), studying English as a Foreign language at Isfahan Air Base language institute in Iran were randomly selected. Then, the sample was divided into two groups, the control group (n=15) and the experimental group (n= 15). The participant's level of speaking assessed after 20 hours of instruction via using Virtual Team-working. The data for this study are based on the students' usage of mobile application in order to have virtual team-working by using sound, text, graphic and animation are accessible to students. Currently only experimental group in the English institute employed activities through virtual team-working. Eighty percent of the participants were in their twenties; twenty percent were in their thirties. The level of the EFL learners was upper intermediate. All of them were homogeneous according to pretest.

TABLE 1
DEMOGRAPHIC BACKGROUND OF THE PARTICIPANT

Number of the participants	30
Sex	Female
Mother tongue	Persian
Age	18-31
Level	Upper intermediate

B. Instruments

In order to guarantee the homogeneity of the subjects regarding the English language proficiency, a standardized KET 1 Practice Test was taken from the subjects participating in the research. The key English Test tests the four skills of reading, writing, listening and speaking, which is based on Waystage specification (1990, Council of Europe) as pretest was administered. This exam helped the researchers to grasp homogenous subjects which then they could divide them into control and experimental groups. Different virtual activities through virtual groups for teaching productive language skills, writing and speaking were used for the experimental group. After passing 20 hours of instruction via Virtual Team-Working, a post-test, KET 2 was administrated.

1. Pre-test and Post-test

A pretest KET1 exam was taken place before the process as a criteria placement. After the treatment the posttest KET2 was taken place from the participants. The pre-test and post-test conclude the productive skills evaluation in terms of writing and speaking after passing six weeks of teaching through virtual spaces, the post-test KET 2 was taken place. The amount of the instruction in both group were the same, just the format of the instruction was different. Then the results of the students score in these two sets of exams were compared. They set up their virtual groups and continued team-work activities during 6 weeks. This study employed a triangulated research approach involving questionnaires, pre/post productive tests, observation, and interview to increase the reliability of the study. Pre/Post productive tests were used to compare the participants' speaking and writing productions before/after the project, and they were evaluated based on the comparison of their mean scores by Matlab software. A chi-square test was run for each test to see whether the differences between observed and expected results were significant.

2. KET Writing and Speaking Part

The Cambridge English, Key Writing paper has nine parts and different types of texts and questions. Parts 1 to 5 are about writing. Writing is taken together about 60 minutes, the Writing parts have 30 questions and are worth 50% of the total score for the exam. The participants should read the instructions carefully before starting each section, they should take their time and don't hurry. There is plenty of time to answer all the questions. They should study the vocabulary topics then they should study grammar at A2 level and at last they should study more reading exercises at A2 level. Time allowed was about 45 minutes, normally the student participated the speaking test with another candidate. The two of the students met two examiners.

IV. RESULTS

The learners pretest scores were analyzed in terms of frequencies and percentages. The results showed that all of the participants in the experimental group were improved in both writing and speaking skills. The prewriting test investigated the participants' initial writing and speaking performances and was used to compare it with the results of the participants' post writing and speaking performances. These two writing and speaking tests were scored based on a rubric scoring model in an analytic way of scoring and due to some specific components of writing and speaking, which were the main focus in the research.

TABLE 2
DESCRIPTIVE STATISTICS RELATED TO EXPERIMENTAL GROUP PERFORMANCES ON THE PRE AND POSTTEST IN WRITING SKILL

Experimental Group	N	Mean	Std Deviation	Std Error Mean
(Pretest writing)	15	16.5333	2.1996	0.5679
(Posttest writing)	15	18.4667	2.9488	0.7614

Table 2 revealed that there was a significant difference between the pre and post-writing test scores in experimental group. The participants of the study scored significantly greater on the post writing test (M = 18.46, SD = 2.94) than on the pretest writing test (M=16.53, SD=2.19).

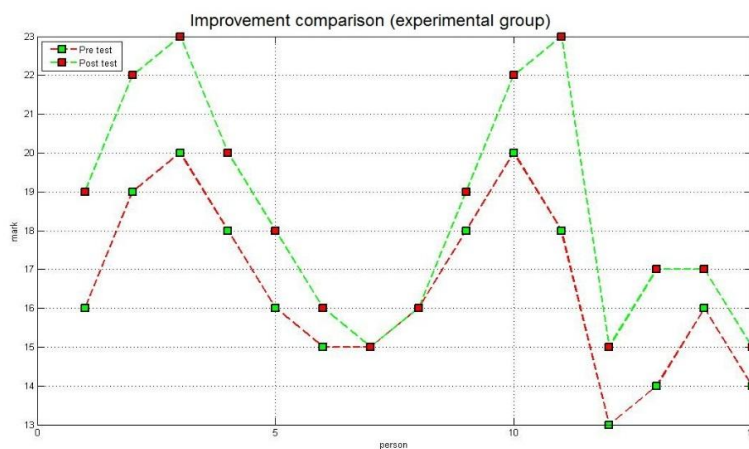


Figure1. Correlation between pre and posttest scores of experimental in writing.

Table 3 depicts the descriptive statistics of experimental group on the pretest and posttest on speaking skill. The experimental group received the mean score of 17.2 in pretest of speaking and the mean scores of 19.06 in posttest of speaking. Thus both group showed that there was not any significant difference between both groups on the pretest. The descriptive statistics tabulated shows that both the experimental group and the control Group have performed almost the same on the pretest, there exists no significant difference between the two groups.

TABLE 3
DESCRIPTIVE STATISTICS RELATED TO EXPERIMENTAL GROUP PERFORMANCES ON THE PRETEST AND POSTTEST ON SPEAKING SKILL

Experimental Group	N	Mean	Std Deviation	Std Error Mean
(Pretest speaking)	15	17.2000	2.2104	0.5707
(Posttest speaking)	15	19.0667	2.8900	0.7462

Table 3 revealed that there was a significant difference between the pre and post speaking test scores in experimental group. The participants of the study scored significantly greater on the post speaking test (M = 19.06, SD = 2.89) than on the pretest speaking test (M = 17.20, SD = 2.21). The significant level for testing null and alternative hypotheses was set at .05. The p value was less than .05 and this was the evidence.

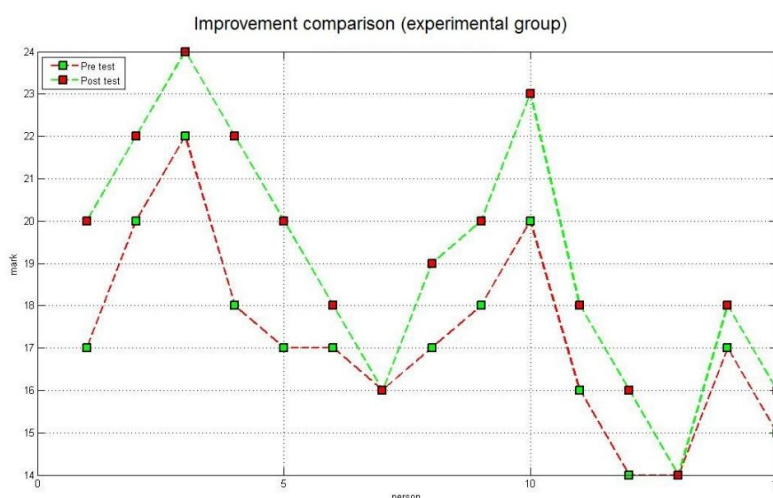


Figure2. Correlation between pre and posttest scores of experimental group in speaking.

V. DISCUSSION AND FINDINGS

The results from pretest and posttest writing of the students indicated that applying the virtual project affect majority of the student s performance in a significant manner and the study was in accordance with other research done by

McCarthy (2012), which investigated how to develop effective virtual teams with students in a blended or online environment. The results from the study were in line with different student studies were mixed concerning working in a virtual team. The participants of this study showed positive improvement by using technology and virtual team-working.

The finding was also in agreement with Kavanagh, Caspersz, Levak and Sargent (2011), Virtual Team Contract Working as a virtual team has different demands when compared to working in a face to-face team to communicate, share information and meet synchronously or asynchronously. The widespread use of virtual teams in online courses has not been accompanied by adequate research to address those issues that affected the learning and productivity in virtual teams. The findings of this study which explored the relationship between the nature of computer-mediated communication technology and virtual team learning suggested that flow experience is associated with perceived characteristics of the computer software as well as with team-related creativity and learning outcomes.

The finding was in contrast with the findings of Tan (2012), who found that teams which used their dialogue technique were more satisfied with decisions made in the team which showed that a traditional team started out more satisfied than a virtual team. While online students generally perceive interaction as an effective means of learning, they vary with regard to having more interaction in online courses. Such variations seem to be associated with differences in personality or learning style. According to Bailey (2016), stated that working together virtually can be especially rewarding to those who recognize it has its own set of rules and its own measures of success. It takes work, it takes the right mindsets, and you can argue that each team creates a culture of its own. We've all been on the "information highway" for decades. Now we're learning how to drive on the virtual highway.

The aim of this small-scale study was to improve the level of writing and speaking of the EFL learners through virtual team-working. Comparing the results from pre and posttest of writing and speaking showed the significant improvement of the participants in productive skills. The participants of the study scored significantly greater on the posttest than on the pretest both in writing and speaking. The results from observation in the current study showed that the students improved in writing proficiency in comparison with the pretest results. They became better in writing grammatically and using punctuation marks, and cohesion and coherence. And they became better in speaking grammatically simultaneously.

VI. IMPLICATIONS AND APPLICATIONS OF THE STUDY

The results of this study illustrated that virtual team-working have great influence on educational system in teaching English to EFL learners. However, this study has encountered some limitations, but its findings revealed some salient points for those who are involved in teaching and learning English to EFL learners. This study opens up opportunity for English teachers to apply further opportunities to communicate in an authentic situation. The results of this study and the related literature proved that using technology and virtual team-working have great potential to be used as an educational tool. The students will benefit of using virtual team-working in teaching through interacting and collaborating with students and teacher. It also provides a good way for shy students to express themselves freely. Moreover, the students can experience having real audience and sharing knowledge with them to expand their information. This will motivate students to improve their writing and speaking abilities and students will be aware of their own learning. Self-monitoring is one of the distinctive part of this kind of teaching English. It may be of benefit to researchers who are willing to conduct a similar study in the future and to instructional technology planners to gain insight into how they can use technology to facilitate teaching English language skills. Using virtual team-working in educational environments seems to provide a deeper learning in compared to using the traditional techniques for teaching. In this process, learners themselves direct their learning, based on their own needs and difficulties.

VII. LIMITATION OF THE STUDY

In terms of the limitations of the study, this study is not an exception. Having a small size of participants is one of them, which requires further research for any generalizations. All the participants in this study were female and all were at the upper intermediate level. It is recommended to examine the project for female students and for students in different schools or university levels in further studies to see how different genders in different levels of study react to using technology and virtual team-working.

This study had control group and the participants' performance in experimental group after the treatment was compared with their own performance before the project. Another point might be that for implementing in our schools, skillful teachers in terms of computer and the Internet are needed, while many teachers in Iran are not so familiar with online programs and some are never motivated to learn. Moreover, high speed accessing to the Internet is very important for doing team-work activities. In this study we encountered some Internet accessing problems. Virtual team-working in this study were limited among the students and the teacher within a specific class. It is recommended to enlarge the interacting areas and the time spending in this regard.

VIII. SUGGESTIONS FOR FURTHER RESEARCH STUDIES

Based on the limitations of this study, it is worthwhile to announce some suggestions for any related research in the future. A further study can be organized with a larger sample of participants in order to compare the progress of the participants who take part in the progress of the participants in the control group. As the current study was done on a group of EFL learners, further studies are needed in other levels as well. In this study productive skill development through virtual team-working was under investigating, so it is recommended to examine the effect of using technology to develop other language skills. It is also recommended to link different classes in different cities of Iran in a virtual team-working in order to examine the social and cultural aspects of exchange among the participants.

IX. FINAL REMARKS

Learning English language is very important, as it is the language of science. The ability to communicate in English is not only through speaking and listening, but also through writing and reading, so trying to learn productive skills can be as crucial as trying to learn other skills. Another point is that, learning a language skill should not be limited to taking part in language classes. Fortunately, with the growth of technology, people can learn language in various ways in real context through the Internet, at home, office. Using virtual team-working for language learning is a new interesting technique, which is not known for many English teachers and students in Iran. Conducting this small-scale study, it is hoped that this study and the studies similar to this one could encourage teachers and students to use technology and virtual team-working as supplementary tools in English classes and arouse students' awareness about the potential of this process in teaching and learning English.

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