The Effect of Virtual Learning on Speaking Skill

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Abstract

The Internet and virtual learning environments have changed the learning opportunities by diversifying the learning options not only in general education but also in the field of foreign language for four skill, especially oral learning. Therefore, the current study examined the effect of virtual learning on speaking skill of police officers. Seventy-five learners at intermediate level participated in this study. After homogenizing the learners through preliminary English test (PET), some of them discarded from study and the remaining participants divided into two groups of control and experimental group. Speaking section of PET was run for pretest and posttest. Interchange book with traditional method (face to face speaking in the classroom) was taught to control group and experimental group received the virtual teaching (through Skype) with the new methods. The collected data was analyzed through t-test. The results displayed the effect of virtual learning on speaking skill of police officers. It could be effective to encourage teachers, students and administrators to create and join Skype groups to exchange ideas on how to collaborate and foster learning activities in their classrooms.

Introduction

Virtual learning environments (VLE) have recently appeared as a significant subject in education theory and practice (Weller, 2007). According to Vigentini (2009), a VLE should consider all learning styles of the learners to receive the best education, so that they may not in a lecture-based environment where the lectures are based on auditory learners only (Williams & Fardon 2005,). If the resources on a VLE do not provide the requirements of the learners, it can be effectively useless and does not improve the learners' learning experience. Therefore, it should contain enough information to allow students to enhance their presentation in lectures and to attain a wider comprehending of the subject (Ofsted Report, 2009), like videos or audio files which can improve speaking and listening skills. It can be considered that there are not any research studies on the time e-learners spent on computer skills variables to learning speaking skill. In addition, it has also been observed that little research has been taken into account to examine factors that predict the academic performance of e-learners.

Several studies have been performed on academic performance, but not much on e-learning students, especially those students who are working in an office within the educational system. It is required to utilize this type of learning to assist enhance the e-learners' academic performance entails and uses as the motivating factor for engaging the current research to fill the significant research gap. The present study has great significance. First of all, the findings provide an idea about the e-learning perspectives and speaking skill in order to provide key information to more research work in such scopes. In the same way, the study provides knowledge and guidelines which may be helpful to policy officers. The research is therefore of importance for planners, and other social scientists. Finally, this study provides an input to the students, teachers and researchers in the areas of e-learning. Research studies are started upon with a view to develop

the knowledge. The present study was therefore performed with this same objective, especially in the field of e-learning. It has therefore, assisted to the extension of the frontier of knowledge in speaking skill. Based on these explanations, the research question is in the following:

Q: Does virtual learning affect on speaking skill of police officers?

Related research

The importance of virtual classes

Virtual classrooms are online environments that enable learners and teachers to communicate so that they were face to face in a classroom. It has significant advantages for the education process. According to Slevin (2001, p. 104) it is worthwhile to consider virtual and real life as not competing areas of communication; instead we should attempt to consider both situations. It has advantage for school management. The decision to perform a virtual learning environment (VLE) in a school displays benefits to, and enhances concerns for, school management, and is not one that should be taken superficially (Gill & Shaw 2004, Visscher, Wild, Smith & Newton, 2003, p. 364).

Ong and Mannan (2004, p. 382) describe that virtual reality simulations and animations are significant uses that develop and appropriately environment in the learning process to involve learners and improve their visions; they could be also useful to produce communications at the similar context. The virtual classroom has made it possible for learners to provide the characteristics of the Internet to cater vital learning atmospheres.

Yang and Liu (2007) display that virtual classroom not only provides course materials to the learners, but also provides a live, contextual and interactive atmosphere for them. Furthermore, teachers can monitor the learning and teaching process as they perform in the

conventional classroom. The significance of it can be found in the studies of Khalifa and Lam (2002) words when they mention that "An online learning atmosphere like the virtual classroom has benefits which contain developing the spatial and temporal barriers, flexibility, interactivity and interoperability". Thus, it is considerable that virtual classes have major significance in the educational system that we have to provide more consideration to and attempt to enhance them as much as possible. Virtual Classroom is a simulated classroom via Internet, which provides a interaction atmosphere for distance learners just like traditional face-to-face classroom. It permits learners to participate in a classroom from anywhere in the world and its purpose is to provide a learning experience that is similar to a real classroom. It is a scheduled, online, teacher-led training session, where teachers and learners communicate each other utilizing computers connected to a network like the Internet. It provides a condition to bring learners from around the world together online in highly interactive virtual classes while reducing the travel, time, and costs. Therefore, virtual classroom can be seen as a classroom where a lecture or session is instructed using Internet.

Integrating speaking skills

Burns and Joyce (1997) illustrate speaking as the skill of generating an oral message considering the context in which it occurs. Torky (2006) mentions that learners must improve their linguistic, discourse and pragmatic competences simultaneously that they represent fluency if they want to master the speaking skills of a language. There are significant factors which must be considered in order to simplify interaction. The first one is to examine speaking a face-to-face act in which the learners are normally physically present. The second perspective is to examine about speaking is that it is communicative and all the participants assist to the communicative

act. Finally, speaking takes place in real time, so spontaneity plays a significant role in the preparation, organization and production of the messages provided by the learners. (Torky, 2006).

Improving speaking skills through the use of a blog

According to Van Lier (1995), there are some relevant differences between spoken and written communication. Speaking is spontaneous and the participants in a conversation do not have the same time to prepare their message as they would have in a written conversation. Moreover, spoken language emphasizes on issues such as intonation, stress and pronunciation whereas written language contains punctuation in order to be cohesive and coherent.

Nunan (1989) shows that speaking can have both transactional and interactional aims. The first one concentates on the transmission of information by one of the learners, while the interactive purpose of speaking attempts to create a social interaction between the learners. However, Kingen (2000) investigates that both types are often incorporated in order to assist communication between the speakers.

Methodology

Participants

74 participants participated in this study at the first stage. They are police personnel at in-service English language center in Hormozganin. To ensure the homogeneity of the participants, PET test is administered and 14 participants were excluded from the study. The participants were intermediate students enrolled in English language classes. Then, they divided into a 30

experimental group and a 30 control group and selected randomly. Their ages range between 20-40 years old.

Instrumentation

In order to do the present study, three instruments were utilized for the study

Preliminary English Test (PET)

The preliminary English test is one of the Cambridge English tests. The test is used for intermediate level of English and measure the participants, language knowledge and used as a homogenization test. This exam consists of 3 papers, reading &writing (1hour 30minutes). It has 5parts for reading skill &3 parts for writing. Listening (36minutes), it has 4 parts. Speaking has (10-12 minutes) in 4 parts.

Speaking section in PET

Speaking section was used as a pretest and posttest to examine the ability of the learners.

Rubric for speaking skill assessment

This rubric examines fluency and accuracy of the learners and has some sections including grammar, pronunciation, vocabulary, comprehension, background knowledge and fluency. Each category has some subcategories namely needs improvement (1 point), satisfactory (2 points), good (3 points) and excellent (4 points).

Interchange book

This book offers updated content in every unit, grammar practice, and opportunities to develop speaking and listening skills. Interchange features contemporary topics and a strong

focus on both accuracy and fluency. Its successful multi-skill syllabus integrates themes, grammar, functions, vocabulary, and pronunciation.

Procedure

Before starting the treatment, a standard test (PET) was administered to homogenize the participants. After homogenizing, 14 learners were discarded and 60 participants were used for the final study. The participants were divided into two groups of control and experimental groups. Then, a pretest (speaking section of PET) was performed. Interchange book with traditional method (face to face speaking in the classroom) was taught to control group and experimental group received the virtual teaching (through Skype) with the new methods. For experimental group, the interactive scenario provides the learner with the most immersive and true-to-life simulation of the given environment in which they can practice their spoken language skills. The learner's participation is necessary for the interaction between all dialogue participants (the learner and the virtual characters) in this scene to continue. In the interactive scenario, the most likely flow of possible interactions is scripted, and alternative paths are created, which allows a variety of inputs from the learner. The learner interacts through speech with the agents, but in contrast with the one-to-one scenarios, the agents respond appropriately through a number of conversational turns, which results in an appropriate dialogue relevant to the scene. Control group has this scenario but it is face to face interaction in the classroom. 168 hours was lasted the virtual classes with three terms and duration of each term is one month. After treatment, posttest was performed for both groups. Then, the collected data was analyzed through three raters. Three raters were used for the reliability of the pretest and posttest. They used the rubric for assessment of the participants' speaking knowledge.

Design of the study

According to Hatch and Farhady (1982, p.23), because we are dealing with the most complicated human behaviors, language learning and language behaviors", constructing a true experimental design may be difficult if not impossible in most studies. Therefore, the quasi-experimental designs are the best alternatives available to us. This design is often used in classroom experiments when experimental group and control group randomly.

Data Analysis

The test results of both groups were analyzed and compared regarding two instructional conditions through descriptive statistics, t-test, independent sample t-test and two pair t-tests which are used in order to investigate research hypotheses.

Test of variable homogeneity

Leven test represented the significant level of meaningfulness is 0.234 which show the variance of two groups are equal. In fact, 74 participants were selected as homogenous. To evaluate the homogeneity of regression coefficients (slope), a Levene test was used and as it has been shown in the Table 1, p-value is 0.234 that is higher than the significance level of 0.05. As a result, it can be concluded that data follow homogeneity of covariate regression coefficients (slope).

Table 1. Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
9.232	2	72	0.234

Kolmogorov-Smirnov test of normality

In order to examine the normality of the groups, test of Kolmogorov-Smirnov has been used in Table 2 in the following:

Table 2. One-Sample Kolmogorov-Smirnov Test

		Data
N		60
Normal Parameters[a,b]	Mean	15.20
	Std. Deviation	3.145
Test Statistic		.215
Asymp. Sig. (2-tailed)		.07

Test statistic is 0.215 and meaningful level is 0.07 which represents the distribution of scores is normal.

Investigation of the research question

The research question sought to investigate whether virtual learning has any significant effect on speaking skill of Iranian EFL learners. Table 3 and 4 summarizes the descriptive statistics for the learners' performance of experimental and control groups in pretest and posttest stage. Next, inferential statistics through t-test was run to examine the mean differences of two groups at pretest.

Table 3. Descriptive statistics of experimental group's speaking scores in pre and post-test

Exp	N	Mean	Std.deviation	Minimum	Maximum
Pre	60	14.47	2.949	11	20
Post	60	15.93	3.262	11	20

Regarding Table 3, mean score and standard deviation of experimental group in pre-test is 14.47 and 2.949, respectively. The minimum score of speaking test in pre-test of experimental group is 11 and the maximum score is 20. In addition, mean score and standard deviation of post-test in experimental group is 15.93 and 3.262, respectively. The minimum score of speaking in post-test of experimental group is 11. It should be taken into consideration that the learners in post-test of experimental group had greater mean score than pre-test of experimental group. It shows that treatment of virtual learning has the impact on the improving speaking skill.

Descriptive Statistics of writing scores of control group in pre-test and post-test

The obtained descriptive statistics of learners has been displayed in Table 4.

Table 4. Descriptive statistics of control group's speaking scores in pre and post-test

Ctrl	N	Mean	Std.deviation	Minimum	Maximum
Pre	60	17.47	1.846	14	20
Post	60	17.68	1.764	13	20

Regarding Table 4, mean score and standard deviation of control group in pre-test is 17.47 and 1.764, respectively. The minimum score of speaking test in pre-test of control group is 14 and the maximum score is 20. In addition, mean score and standard deviation of post-test in control group is 17.68 and 1.764, respectively. The maximum and minimum score of speaking in post-test of control group is 13 and 20, respectively. It should be taken into consideration that the learners in post-test of control group had nearly the same mean score as pre-test of control group.

In order to know whether there is a significance difference between control and experimental group, a paired t-test was run in the following:

Table 5. Independent sample t-test of control group's pre-test and post-test speaking scores

Control group	N	Mean	Std. deviation	T	Df	Sig
Pre	60	15.39	1.653	-3.216	14	0.006
Post	60	15.75	3.432			

Due to Table 4.5, t-test has been -3.216 and the significant level was 0.006 which displayed that there were no meaningful and significant difference among learners' speaking scores at control group in pretest and posttest.

Comparisons of experimental group's pre-test and post-test speaking mean scores

Mean scores of learners' speaking in pre-test and post-test of experimental group is 14.47 and 15.93, respectively. Their mean comparisons of two groups have been run through independent t-test and have been shown in table 6.

Table 6. Independent sample t-test of experimental group's speaking scores in pre-test and post-test

Exp test reading	N	Mean	Std. deviation	T	Df	Sig
Pre	60	14.46	2.984	-1.324	14	0.20
Post	60	15.93	3.261			

Based on Table 6, t-test is -1.324 and the significant level is 0.2 which displayed that there were meaningful and significant difference among speaking scores of experimental group learners in pre-test and post-test and shows the effectiveness of virtual learning on speaking skill.

Comparison between learners' scores in experimental and control groups

Mean scores of learners' speaking in experimental group and control group are 19.00 and 15.93, respectively. The comparison of mean scores in two groups has been represented in table 7.

Table 7. Paired sample t-test of pre-test and post-test in experimental and control groups

test reading	N	Mean	Std. deviation	T	Df	Sig
Exp	60	18.23	3.145	-4.625	58	0.08
Ctrl	60	15.20	1.736			

As Table 7 shows, t-test has been -4.625 and the significance level was 0.08 which represented there is a significant and meaningful difference between experimental and control groups' speaking scores of learners in pre-test and post-test. The finding displayed that teaching virtual learning has effect on enhancing speaking skill of the learners in experimental group.

Conclusions and Discussion

The current study examined the virtual learning affect on speaking skill of police officers. Results displayed that virtual learning also assists enhancing the learners' speaking. As the user's skill enhances, the technology reads less material so that the learner reads more. This research assisted to fill the current gap in the literature of virtual atmospheres and language learning by describing document of the impact of this new methodology in enhancing second language oral proficiency. The results of the test allowed rejection of the null hypothesis, as there was a significant difference in effect on the posttest scores between the participants in the two groups. Therefore, the results suggested that the virtual conversation group performed significantly better than the face-to-face group. Dependent t-tests were also carried out for each group individually and both groups represented improvement from pretest to posttest scores. Therefore, these results suggest that the use of a virtual environment is an effective alternative to the face-to-face

conversation hour. With the growth of online instruction in higher education and the requirement for various methods of foreign language education, the results of this study shows that students who prefer to take online language courses would have a benefit in developing their oral proficiency in a second language if this approach were performed.

These results displayed the effect of virtual learning on speaking skill which is in agreement and disagreement of some previous studies which were carried out. For example, the current finding is on the contrary of Dwyer, Carlson, and Kahre (2002), Dwyer and Fus (2002), and Rubin, Rubin, and Jordan (1997)'s results who represent that the speaking course is a significant intervention in reducing speaking anxiety in the traditional format and the current study develops their certainty to remain true in the hybrid and fully-online formats.

The finding is in line with the outcomes of McCroskey (2009)'s research which pointed out that learners in the online treatment group, which had the most atmosphere to enhance due to well above-average public speaking anxiety at baseline, reduced significantly more than in traditional face-to-face treatment group, who entered and exited the course with below-average public speaking anxiety. The finding used in the current study is disagreed with the findings of Allen and Franklin (2002) who reported that there is little reduction in student satisfaction between traditional and fully-online course delivery. The current study advocates the results of Benoit, Benoit, Milyo, and Hansen. (2006) who reported that students were slightly, although not vitally more satisfied with hybrid courses than with face-to-face courses.

In addition, the result is in congruent with Molka-Danielsen and Deutschmann (2009) which mentioned the face-to-face conversation hours carried out the same activities but met in real life at a conference room at a university. The activities used for both types of conversation hours were designed accompany with a model of action-learning in which students had to

communicate in authentic tasks that needed them to investigate context, plan and act a role, and reflect on their own learning. This finding is also consistent with Abdous, Camarena, and Facer (2009), who mentioned that podcasting, a recording application, can effectively enhance the acquisition of a number of language skills if the teachers utilize the technology for many aims, in and outside of the classroom. The students' high interest in using the applications was consistent with the findings of Abdous, Camarena, and Facer (2009) whose learners mentioned that podcasts assisted them make their vocabulary and enhance their knowledge of grammatical rules.

Recommendations for Future Research

It is also recommended that students taking the speaking course in other schools and institute be studied. This study should contain students taking the speaking course in all formats: face-to-face, hybrid, and online. Moreover, it is recommended that more teachers who teach the speaking course in its various formats in Hormozgan and in other provinces be surveyed and/or interviewed to better ascertain teacher perceptions of student learning in different course formats. Furthermore, since this study gathered data from restricted time, it may be advantage to collect data over one semester in order to see if the outcomes remain similar over time. A longitudinal study may be useful in order to continue with student learning results in changing modes of technology-enhanced course delivery so that higher education administrators may be provided to make data-driven decisions due to training.

Digital storytelling has been utilized to assist learners interact their own stories effectively since it can be a learner-centered activity when the subject is related to their daily life and personal subject matter. It can also have an effect on enhancing learners' speaking in the

narration process, linguistic structure, vocabulary, sound patterns, and prosody of the foreign language.

The other suggestions mainly emphasize on performing more empirical ways to incorporate virtual language learning techniques into language learning classrooms. Because many studies align with the benefits of utilizing hands free for improving listening and speaking skills, along with other language learning skills, I suggest incorporating hands free in the language learning curriculum. In addition, from a technological aspect, the researcher suggests that the focus must be on one single device during a course. Students require being familiar with the technology in a slow-but-sure type of instruction instead of overwhelming them with different virtual devices and technologies. That would ensure the students would be familiar with one single usage instead of several that could distract from the aim of the lesson that they are receiving in the classroom. Another suggested technology integration scenario is for students to be divided into various teams depending on their interest and background, especially if some of them are working in the business/training fields that the corporate domain may require for instructed aims. For example, one team could be English for Special Purposes (ESP) and another team could be English for Academic Purposes (EAP), and so on.

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