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THE EFFECT OF THE SKYPE™ CONFERENCE CALL ON ENGLISH SPEAKING ANXIETY

Research Article

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Abstract

As a result of the globalized world, technology has become the center of our lives and changes a lot of things such as our education and communication. Educational institutions have started to use some online communication platforms such as Skype™ while teaching a second language. This research examines the effect of Skype™ on foreign language learners' speaking anxiety levels and tries to find out the differences in foreign language speaking anxiety levels between the traditional speaking lesson and the Skype™ Conference Call lesson. Twenty-one B1-B2 level adult English language learners participated in this study and a true experimental research design was used. The data were analyzed by paired samples t-test analysis of pre- and post-tests of participants. The results indicated that Skype™ had an impact on foreign language learners' speaking anxiety because it reduced the anxiety levels of learners in the experimental group.

Keywords: CALL, Foreign language speaking, Anxiety, Skype™, English speaking

1. Introduction

In every part of our lives, we can encounter any kind of technology, for the era we live in is highly technology-centered. Because of the technological developments, educational areas have also given a lot of importance to using technology in teaching and learning processes. Schools and other educational institutions have started to implement Information and Communication Technologies (ICT) in their lessons and also, Computer-assisted Language Learning (CALL) has gained in importance. CALL includes ICT use in foreign language education, in the learning-teaching process, and it is not just related to using computers in lessons, it also includes using specific software, web-based learning materials, virtual educational environments such as Second Life for language education, and Computer-mediated Communication (CMC) tools such as online chat and e-mails. One of these CMC tools used in language education is Skype™ and some studies have been made about the role of Skype™ on students' four language skills (Gao, 2015). Besides, to determine the foreign language speaking anxiety levels of foreign language learners, some studies have been conducted by using Second Life. However, as Second Life is difficult to use, Oh and Nussli (2014) suggested that this kind of research can be carried out by using Skype™. The aim of this paper was to determine the differences in English speaking anxiety levels between face-to-face and Skype™ speaking groups. The results should show us how the speaking lesson

on Skype™ affected their speaking anxiety. Therefore, the results of the present study will help us understand as well as compare the efficiency and usefulness of the technology-enhanced education compared to education in traditional settings specifically with regard to teaching and learning speaking, and/or improving speaking and communicative skills of the foreign language learners.

2. Literature review

2.1. The effect of technology on foreign language speaking anxiety

Technology, which at first consisted of obsolete or abandoned tools of today such as overhead projectors and cassette players, started to be used in education in the 1960s. With the developments in technology, education has become globalized day by day and educational institutions have been changing their operation systems, and this change also affects the students' learning (Lim & Khine, 2009). In the 1960s, an approach came into existence which is now known as CALL. Levy (1997) defines CALL as the use of computers in language learning and teaching. Chapelle (2002) also defines CALL as using technology in foreign language education in a wide range of areas. Today, the CALL approach does not consist of just computers; it also includes Web 3.0 tools claimed as the 'social web' by Pegrum (2009), tables, smartphones, authentic materials such as animations, , etc., online games, virtual environments and online environments. There are a lot of studies about the beliefs and attitudes of English as a Foreign Language (EFL) teachers and students towards CALL (Saglam & Sert, 2012; Gilakjani & Leong, 2012; Ozel & Arikan, 2015; Ionescu, 2017). The results of these studies are almost the same; all teachers and students think that CALL has an important role in language learning and that it should be integrated in an absolute way. With this common opinion, on the other hand, virtual educational environments started to be used in language education. The effect of virtual environments on language learning has been researched so far. It has been found that virtual environments, mostly Second Life, improve students' motivation for language learning (Kamali, 2012; Beluce & Oliveria, 2015; Uzun, 2017). It can be said that the more motivation there is, the more learning there will be. Based on this belief, Lan (2015) carried out an action research study. He used contextual EFL learning and conducted his research in Second Life. As a result of his study, it was found that, in addition to contextual learning benefits, virtual environment learning also increases students' general learning. Other studies also reported that using virtual environments helps students improve their speaking and listening skills (Rahoyu & Jacobson n.d.; Bautista, 2013; Gao, 2015; Shahri & Ashraf, 2016; Guzel & Aydin, 2016). Apart from the effect of virtual environments on language learning, some studies have been made about their effect on foreign language speaking anxiety. Guzel and Aydin (2014) reviewed the articles about the effects of Second Life on foreign language speaking anxiety (FLSA) and as a general result, most of the studies concurred that Second Life reduces the FLSA levels of foreign language learners (Abal, 2012; Grant, Huang & Neofitou, 2013; Oh & Nussli, 2014). Oh and Nussli (2014) stated in their research that the use of 3D environments was hard to use and that it needed technical requirements. They had to teach it to both students and lecturers to carry out their research. Because of this difficulty, they suggested using alternative online platforms for other studies to be conducted. Skype™ is regarded as one of these online platforms. It is software designed for communication throughout the world with everyone. It can be used on both mobile phones and computers, even on tablets. It enables users to make free one-to-one calls and conference calls, send messages and share files (Skype™, n.d.). It can also be used for educational purposes. There are some studies about the effect of Skype™ on language learning. These studies also concluded that using Skype™ language education improves students' motivation and enhances their speaking skills (Correa, 2015; Khan, Khan & Ayaz, 2016). However, the

attempt to specify the effects of Skype™ on speaking anxiety is highly limited. This study aims to determine the effect of Skype™ on FLSA by making a comparison with face-to-face classroom environments.

2.2. Gender and foreign language speaking anxiety

FLSA has been researched extensively as an important factor in foreign language education (e.g. Bergström, 2017; Cagatay, 2015; He, 2017; Luo, 2014; Mede and Karairmak, 2017). There are also studies that have investigated the effect of and/or relationship between gender and FLSA (e.g. Dewaele et al., 2016; Dewaele and Al-Saraj, 2015; Gargalianou et al., 2015; Öztürk and Gürbüz, 2013). Although there is no clear-cut consensus in the literature related to the effect of gender on FLSA, the majority of the research suggests that the anxiety level of females is usually higher. Researchers have also had interest in how foreign language anxiety is influenced by classroom social factors (Effiong, 2016). However, there are hardly any studies that compare and/or contrast gender differences in face-to-face and online environments such as Skype with regard to FLSA.

Dewaele et al. (2016) investigated gender differences in foreign language enjoyment and foreign language classroom anxiety. According to their findings, females have more fun but also experience more anxiety in foreign language classes compared to males who seemed to worry less about their mistakes, and thus, were more confident. Similarly, Gargalianou et al. (2015) observed that females experience higher levels of foreign language anxiety due to personality traits such as being emotional and conscientious. Likewise, Öztürk and Gürbüz (2012) reported that female students get more anxious than male students while speaking in English in classroom.

The theoretical background of this study is based on the socio-affective filter (Dulay & Burt, 1977), the Affective Filter Hypothesis by Krashen (1982) and CALL (Levy, 1997). The term ‘affective filter’ was firstly used by Dulay and Burt (1977), and then Krashen reviewed it and related it to SLA. Within the Affective Filter Hypothesis, there are three related categories and one of these is anxiety. According to Krashen (1982), the lower the anxiety level, the more language acquisition occurs. In this study, considering the CALL approach, it is expected that Skype™ should reduce the level of FLSA of learners.

3. Research questions

This study aims to determine the difference in FLSA levels between the face-to-face traditional classroom and the Skype™ Conference Call classroom. The main purpose of this paper is to find out the effect of Skype™ on FLSA of adult learners and for this aim, the following research questions are asked:

- What are the general FLSA levels of B1-B2 adult English language learners?
- Is there a difference in FLSA levels of learners between the face-to-face speaking lesson and the Skype™ Conference Call lesson?
- Does gender affect the students’ FLSA levels?

4. Methodology

A true experimental research design was used in this research. There were two groups, namely the control and experimental groups, and all of the participants were selected randomly.

4.1. Participants

14 female and 7 male, in total 21, English language learners were chosen randomly from a private language school in Bursa. All of the participants were at B1-B2 level and all of them

were adult learners. Besides, their native speaker teacher was also involved in the study as the instructor of the lesson.

The participants were separated into two groups. One of them was the control group consisting of 10 (5 male, 5 female) learners, and the other was the experimental group consisting of 11 (9 female, 2 male) learners. The starting age for the English language learning background of the participants was almost the same, as most of them had started to learn English between the ages of 10-13.

4.2. Instruments

As data collection tools, two scales were used. The first scale was a five-point Likert scale, which was used for pre-test. This was modified based on the scale used by Akkakoson (2016). In this scale, the general English speaking anxiety levels of the participants were identified. The second tool was an ordinal scale constructed by Abal (2012). Participants reported their anxiety level based on 5 levels (1=low anxiety, 5=high anxiety) during the speaking lesson.

The reliability analysis was done in SPSS 24, and Cronbach's Alpha for the General English Speaking Anxiety Scale was 0.641. Cronbach's Alpha for the English Speaking Anxiety Scale based on Activity Type was 0.763.

In addition, 4 different topics were used for the students to speak about during their speaking lesson. These were; complaining about something they had bought, talking about the movies they had watched, talking about the books they had read, and inviting a friend for dinner in a restaurant.

4.3. Procedure

Firstly, the educational counsellor of the private language school was contacted. After obtaining permission to conduct the research, one of the native speaker teachers (NST) at the school was assigned for this study by the educational counsellor. The research questions, significance of the research and procedure were explained to the NST. The scales were given to her and she specified the two groups, one for the control group, and one for the experimental group. In the first part, she gave the pre-test scale to the students before the speaking class. The participants filled in this scale based on their general English speaking anxieties. In both classes, the NST used the same topics offered in advance for speaking. The control group conducted a face-to-face speaking lesson, as usual. The participants filled in the second anxiety scale after this face-to-face class. For the experimental group, the NST determined a time for themselves to meet on Skype™ Conference Call. All of the students participated in the Skype™ lesson at the same time as their teacher. They also talked about the same topics as the control group. Their teacher sent the second anxiety scale via online forms and all of the students completed it just after the lesson had finished.

Both of the lessons lasted about 20 minutes. The completed scales were taken from the school and the Skype™ group scales were sent online. The data were coded in SPSS 24. The frequencies were analyzed. The groups were split into two as face-to-face group and Skype™ group, and pre-test and post-test results were analyzed via paired samples t-test.

5. Results

In the first part of this study, general FLSA levels of adult learners were revealed. The pre-test results were analyzed and the frequencies were determined. The face-to-face group pre-test mean was 2.77, and the Skype™ group pre-test mean was 3.07. According to independent samples t-test results, the p-value was not smaller than 0.05 ($p=0.086$). Therefore, this suggested that there was not a difference in general FLSA level between the

groups, although numerically it seemed to be higher in the experiment group (3.07). The results are also shown in Table 1. This answers the first research question of this study. The mean FLSA level of the adult participants of the present study is 2.92 out of 5.

Table 1. *Pre-test results of face-to-face and Skype™ groups*

	Groups	N	Mean	P value	SD
Pre-test	Face-to-face	10	2.77	0.086	0.070
	Skype™	11	3.07		0.146

In the second part, post-tests were analyzed. According to independent samples t-test results ($p=0.158$), it was observed that there was no difference in post-tests between the groups, although numerically it seemed that the FLSA of the experiment group has decreased (2.51). The results are demonstrated in Table 2.

Table 2. *Post-test results of face-to-face and Skype™ groups*

	Groups	N	Mean	P value	SD
Post-test	Face-to-face	10	2.97	0.158	0.582
	Skype™	11	2.51		0.828

The next step was analysis of the pre- and post-test results between groups. According to the data, which are statistically insignificant, the FLSA of the control group has slightly increased (from 2.77 to 2.97) whereas the FLSA of the control group has decreased (from 3.07 to 2.51). Paired samples t-test was used, and paired sample statistics for face-to-face group pre-test and post-test results are shown in Table 3.

Table 3. *Paired samples statistics between groups*

Groups		Mean	N	SD
Face-to-face	Pre-test	2.77	10	0.221
	Post-test	2.97		0.582
Skype™	Pre-test	3.07	11	0.487
	Post-test	2.51		0.828

As a result of the comparison of pre-test and post-test of the face-to-face group ($p=0.299$), p was higher than 0.05, so there was no significant difference between the tests. However, p -value was revealed as 0.025 for the Skype™ group between the tests and this means there was a significant difference between pre- and post-test results of the experiment group. The results are presented in Table 4.

Table 4. *Answers for the second research question*

Groups		Mean	SD	p value
Face-to-face	Pre-test vs. Post-test	-0.196	0.563	0.299
Skype™	Pre-test vs. Post-test	0.566	0.710	0.025

As the final step of this study, to obtain an answer for the third research question, independent samples t-test was used to analyze the gender differences by just considering pre-test results. The mean for females was 3.01 and for males, it was 2.78. $p=0.000$. $p<0.05$, so there was a difference between genders. The results suggested that FLSA of the females was higher compared to their male counterparts. The results are presented in Table 5.

Table 5. *One-sample test for gender differences according to pre-test results*

Gender		N	Mean	SD	p value
Female	Pre-test	14	3.01	0.468	0.000
Male	Pre-test	7	2.78	0.179	

6. Discussion

This study aimed to determine the effect of Skype™ on FLSA and find out the FLSA level differences between face-to-face and Skype™ groups. There were two groups in this study. The control group had a traditional face-to-face speaking lesson, and the experimental group had a Skype™ Conference Call speaking lesson. All of the students talked about the same topics and the results were analyzed in SPSS 24. 21 adult English language learners participated in this study. All of them had started to learn English between the ages of 10-13. They are now the students of a private language school.

10 of them were in the control group, and 11 of them were in the experimental group. All of the students filled in the general FLSA scale as the pre-test. According to the results of the pre-test, there was a difference between face-to-face and Skype™ groups. The mean for the face-to-face group was 2.77 and for the Skype™ group it was 3.07. $p=0.086$. So, at the beginning of the study, the general FLSA level of the Skype™ group was higher than that of the face-to-face group. Both groups had moderate levels of FLSA. Cagatay (2015) made a study of EFL students' FLSA levels in Turkey and also Akkakoson (2016) made a similar study in Thailand. As a result of both these studies, it was found that the students had moderate levels of FLSA, which is similar to the result of this study.

Secondly, post-test results were compared between groups and no significant differences were found ($p=,158$, $p>,05$). The mean for the face-to-face group was 2.97 and for the Skype™ group it was 2.51. Again, the level of FLSA was at a moderate level.

In order to answer the second research question, the pre- and post-test results between groups were analyzed and the results were as expected. According to paired samples t-test results for the face-to-face group, $p=0.299$. The results of the pre-test showed that the mean for the face-to-face group was 2.77. In the post-test, this mean increased and became 2.97. However, the p-value was higher than 0.05, so this increase was not the determiner and showed no significant difference between pre-and post-test results. The learners had

moderate levels of FLSA at the beginning and after the speaking lesson their levels of FLSA remained the same.

However, according to paired samples t-test results for the Skype™ group, there was a significant difference between pre- and post-test results. At the beginning of the lesson, the mean of their general FLSA level was 3.07. This showed that they had moderate levels of anxiety. After the speaking lesson in Skype™, according to their post-test results, the mean decreased to 2.51 and $p=0.025$. Because the p-value was smaller than 0.05, this meant that their FLSA level was higher in general, but that having a Skype™ Conference Call lesson decreased their speaking anxieties.

As it was found before, online environments such as Skype™ have a positive effect on learners' FLSA levels. Considering these results, this study matches up with the results of the studies about Second Life (Abal, 2012; Grant, Huang & Neofitou, 2013; Oh & Nussli, 2014). If students use Skype™ for communication and foreign language speaking purposes, their FLSA levels are likely to decrease. So, as Krashen's Affective Filter Hypothesis (1982) claims, less anxiety means more learning.

In the last part of this study, general FLSA levels were compared between the genders. 14 females and 9 males participated in this study and according to their pre-test results, the mean for females was 3.01 and for males, it was 2.78. $p=0.000$. So, the p-value was smaller than 0.05 and this showed that females became more anxious about speaking English than males did. This result corresponds with a study about the impact of gender on the FLSA level of learners conducted by Ozturk and Gurbuz (2013). They also found that gender affected the FLSA and that females were more anxious than males about speaking a foreign language.

7. Conclusion

This study tried to find out the general FLSA levels of B1-B2 level adult learners, the differences in FLSA levels between a traditional speaking lesson and a Skype™ Conference Call speaking lesson, and finally the impact of gender on FLSA levels. According to the data analysis collected from the two groups, by using pre-tests, the foreign language learners had a moderate level of FLSA. By comparing pre- and post-tests between groups, while the Skype™ group's anxiety level decreased, the FLSA levels of the face-to-face group showed an increase, although this increase was not important. In this respect, the important result of this study is the level of FLSA of the Skype™ group, since the online environment made them less anxious about speaking English. The other thing we can understand from this study is that gender had an impact on the FLSA levels of adult learners. According to the results, females stated that they became more anxious while speaking English in the lesson than males did.

The reason for the results obtained in this study is the era we live in. It is highly technology-centered and all people use it one way or another. Today, most adults, even children, use their mobile phones to communicate more than they use face-to-face communication. They claim that they feel more relaxed while speaking on the phone without seeing each other. Because of this way of thinking, online environments for communication have been gaining in importance and this affects the way we live, think, and even learn. Virtual environments such as Second Life or online environments such as Skype™ have a great influence on learners' motivation and FLSA. This is something that cannot be denied.

8. Pedagogical implications

Considering the observations and findings revealed in the present study, we would suggest that online speaking environments as well as technology-enhanced communication opportunities should be employed in educational settings as it has been revealed that anxiety

levels drop significantly when compared to face-to-face applications that are carried out traditionally in the classrooms. Technology tools such as Skype might be particularly employed with female students who were revealed to feel a higher level of anxiety compared to their male counterparts. Therefore, Skype and other online communication tools can be used at least for assessment of the speaking skills of the students if not for regular classes, which in fact is possible through the principles of blended and flipped learning. Moreover, online speaking assessment won't bring serious concerns related to cheating as the process will require the student and instructor to see and hear each other synchronously in real time.

9. Limitations and suggestion for further research

This research was carried out with just 21 adult learners. The number of participants was highly limited. On the other hand, the number of males who participated in this study was also low. For further research, more participants can be used for data collection and this study can be replicated.

Another way to replicate this study is to make more than one face-to-face and Skype™ Conference Call lesson. After each speaking lesson, participants can report their FLSA levels based on that specific lesson and after collecting much more data, the data can then be analyzed and generalized. Because of the limited time and limited participants, this study is hard to generalize for all.

The underlying reasons why adults feel less anxious while speaking in an online environment can be identified by conducting other research and searching for ways to improve speaking skills with less anxiety.

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