

The effect of second life on speaking achievement

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Abstract

The number of studies that focus on the impact of Second Life (SL) as a virtual language learning tool on speaking achievements of EFL learners is quite limited. Thus, this paper aims to provide insight for SL's effect on Turkish EFL learners' speaking achievement levels. Forty-four EFL learners from Balikesir University participated in this experimental research. The participants were divided into two groups as an experimental group of 20 learners and a control group consisting of 24 students. An interview grading their speaking performance was administered to both groups as pre-test and post-tests. While the control group participants took traditional speaking classes, the experimental group did the same speaking activities on SL. Considering the interview scores, results indicated that learners who used SL had a better performance than the ones who participated in traditional activities.

Keywords: english as a foreign language, second life, speaking, achievement.

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1. Introduction

Speaking as a productive language skill is regarded as an important element in learning a foreign language. However, in spite of the respect paid to speaking, it is mostly neglected during language learning process due to its challenging nature (Nazara, 2011). In addition, speaking skill is generally not preferred compared with other skills since it is hard for teachers to assess learners while they are speaking (Egan, 1999).

Instead of dealing with challenging features of speaking skill, teachers simply prefer to focus more on structural aspects of language while teaching English (Bahrani & Solatani, 2012).

It is possible to list several reasons why speaking is important in EFL learning. First, as Kurudayioğlu (2011) suggests, speaking has an essential place in language learners' performance both individually and socially since it is an indispensable tool for human communication on a daily basis. Second, it is suggested that language mastery requires a communicative competence rather than sole language literacy (Diyab et al., 2013). Third, as Ellis (2012) asserts, interaction is the key element in a language classroom, and learning takes place when the meanings and unclear points are discussed by using a collective interaction in the classroom. Fourth, it is pointed out that gaining grammatical and structural competence can be achieved by mastering the speaking skill (Ellis, 2012). In this context, Wardhaugh (2006) claims that speakers of one language tend to possess grammatical structure of the language automatically. Therefore, it can be concluded that communication established with oral interaction skills in the target language greatly contributes to the development of other language skills.

1.1. SL as a language learning environment

SL is a 3D virtual world which was developed by Linden Labs in 2003. SL offers users to exist in a virtual world by creating avatars to represent them, and it is possible to perform many actions that are common in real life. It basically functions as social network software which enables sharing multimedia items in addition to its MUVE characteristics. Thus, SL has been gradually becoming popular as an alternative platform for real-life situations such as training, education and orienteering due to its relaxing and risk-free features. In brief, SL is an appealing virtual environment that enables its residents to achieve many endeavors that are present in real life, which makes SL quite open to integration with various fields as education, foreign language learning.

SL is regarded as an intriguing platform for EFL learning for the reason that it is quite promising considering its availability for educational contexts and that it offers a great potential for EFL learners' language practice (Aydin, 2013; Balcikanli, 2012; Bradshaw, 2006; Couto, 2010; Inman, Wright & Hartman, 2010; Johnson, 2006; Macedo & Morgado, 2009). On the other hand, SL makes numerous contributions to EFL speaking, offering a valuable source of information for the sake of promoting EFL speaking skills of the language learners. Most importantly, it serves as a brand new language learning environment where language learners are offered a chance to avoid the psychological challenges faced in conventional language learning classrooms. As Couto (2010) and Aydin (2013) suggest, SL is a promising language practice tool that obliterates negative affective states such as fear of negative evaluation and anxiety of the learners while performing in English. Furthermore, Balcikanli (2012) maintains that, in addition to its anxiety-lowering nature, SL actually promotes interaction among language learners. In other words, learners are autonomous and self-regulated in SL. Speaking more specifically, anonymity provided in SL serves as an important agent that diminishes the fear of being judged by the others and offers learners a feeling of freedom in expressing themselves (Aydin, 2013; Balcikanli, 2012; Couto, 2010; Guzel & Aydin, 2014; Johnson, 2006). In connection, SL is a language learning environment that promotes a self-regulated learning process during which learners are urged to employ their academic expectations. In short, SL manifests itself as a practical tool for foreign language learning in various dimensions.

2. Methodology

2.1. Research Design

The study that aimed to gather data on the effect of SL as a virtual language learning environment on speak anxiety was designed to be an experimental research. The study comprised of three steps: (1) the administration of a background questionnaire, speaking achievement pre-test, (2) practice based on speaking activities, (3) speaking achievement post-test. The first phase of the research took place in second week of the fall semester in 2015. The second phase which took a 4-week-long time period. Prior to practice based on speaking activities, third grade EFL learners were randomly divided into two groups as *control* and *experimental groups*. Last, speaking achievement post-test and scales were administered to the participants in the groups to compare their performance.

2.2. Participants

The study included 44 second and third year students who actively took place in the activities. The basic information on the participants are presented in Table 1. All of the participants took classes on basic language skills and knowledge areas such as Contextual Grammar, Oral Communication Skills, Advanced Reading and Writing, Listening and Pronunciation in their first two semesters. Academic achievement of the participants was based on their 4.0 scale GPA scores. The mean score for the academic achievement of the participants was 2.78, ranging from 1.36 to 3.73. Their language levels were considered as advanced due to their intensive language learning experiences in high school and two years of skill-based and theoretically-enriched education in the ELT Department. Table 1 shows the distribution of means, numbers and percentages shaped by age, gender and academic achievement score variables of the participants in the study.

Table 1. Age, Gender, Academic Achievement Score

Variables		Control Group		Experimental Group		Both	
Age	Mean	20.41		21.50		20.90	
	Minimum	20.00		19.00		19	
	Maximum	21.00		35.00		35	
Gender	Number	Female 21	Male 3	Female 15	Male 5	Female 36	Male 8
	Percent	Female 87.5%	Male 12.5%	Female 75.0%	Male 25.0%	Female 81.8%	Male 18.2%
Academic Achievement Score	Mean	2.91		2.63		2.78	
	St. Dev.	.47		.56		.53	
	Minimum	1.36		1.52		1.36	
	Maximum	3.73		3.64		3.73	

2.3. Tools

In the research process, two tools were used to collect data from the groups: (1) A background questionnaire, (2) grading scale for speaking proficiency developed by Kanatlar (2005). First, the background questionnaire interrogated basic information such as age, gender, grade and academic achievement scores. Second, as the tool for scoring speaking proficiency levels, Grading Scale developed by Kanatlar (2005) included five different sections to score such as grammar, vocabulary, fluency,

intelligibility and task achievement (See Appendix 1). Participants can get 100 points maximum in Speaking Grading Scale. Flawless performance on grammar and vocabulary sections is worth 30 points each, fluency section provides 20 points, and finally, intelligibility and task achievement sections are worth 10 points each, as shown in Table 2.

2.4. Procedure

Prior to research procedure, participants were fully informed about the mechanics of the study, the expectations, steps to take and their roles in the process. For ethical concerns, subjects were ensured that their personal information would be protected and all personal details would be kept confidential. Then, subjects were asked to sign a consent form stating that their participation in the study was voluntary and under no circumstances would it cause them to be involved in any political, social and ethical conflicts. Following the reassurance that each subjects' personal information would be kept confidential and signing the forms stating that participation is voluntary, the research process was initiated.

2.5. Pre-test Administration

At the beginning of the research, the background questionnaires were administered to the participants, asking them about their ages, grades (GPA), and genders. Then, subjects were called for an oral interview to talk about a topic chosen from a collection of TOEFL questions. Each participant randomly picked a speaking topic from an envelope and spoke for three or four minutes. Two scorers who are research assistants in the department and advanced-level speakers graded subjects' oral performances based on SGS developed by Kanatlar (2005). Following the completion of pre-tests, the practice stage in which subjects experienced four sessions of 45-minute-long speaking activities.

2.6. Practice Stage

During the practice stage, subjects were randomly divided into two groups as *control* and *experimental groups*. With both groups, same lesson plans were devised and lesson topics were chosen from Q-Skills Advance Your Listening and Speaking by Oxford Press (Caplan & Douglas, 2011) which is an advanced-level speaking course book. While control group subjects participated in traditional speaking lesson environment, subjects in the experimental group joined the same speaking lessons on the virtual world of SL. The practice process took a four-week-long time period, each session taking place once a week for a 45-minute-long lessons.

2.7. Post-test administration

Once the practice sessions were completed, the final step was to commence administration of post-tests. Participants, in both control and experimental groups, were scheduled for a final interview for scoring their speaking achievement levels. The same two scorers that had administered the first interview took place for the final interview. Participants were asked to pick TOEFL discussion questions from inside an envelope and speak for three or four minutes. Their oral performances were scored based on Speaking Grading Scale (SGS) developed by Kanatlar (2005). This way, participants' speaking achievement levels before and after the speaking lessons could be measured and compared with one another.

2.8. Data Analysis

In data analysis process of the study, Statistical Package for Social Sciences (SPSS) was used to analyze data. First step of the data processing was the calculation of the mean scores, minimum and maximum values for the ages of participants. In the second step, number and percentage values of the participants' gender were processed. As the final step, mean scores, minimum and maximum values and standard deviation for GPA of the participants were calculated. To gather data on participants' speaking achievement levels, their speaking performances in interviews were graded by two ELT Department research assistants experienced in EFL teaching. In this regard, mean scores, standard deviations, minimum and maximum scores and standard error of means related to their scores in grammar, vocabulary, intelligibility, fluency, task achievement sections and total scores for both pre-tests and post-tests were processed. As the following step, inter-rater and intra-rater reliability coefficients, pre-test and post-test reliability and overall reliability coefficients were calculated in accordance with Cronbach's Alpha. In Table 2, reliability values of the tests in terms of scorers, total values and overall values are presented. Data on Table 3 suggests that reliability levels of both pre-tests and post-tests were acceptable. For instance, reliability coefficient presented for Scorer 1 indicated that reliability level of the pre-test was calculated as 0.86, and post-test reliability level was 0.80. As for Scorer 2, pre-test reliability level was 0.83, while post-test reliability was 0.85. Following the data analysis for the reliability levels of pre-tests and post-test for both Scorer 1 and Scorer 2, a paired-sample t-tests were used as a means of processing whether there was any significant difference between pre-test and post-test scores of each group. Moreover, independent sample t-tests were used to make a comparison between the value differences of two groups.

Table 2. Inter-rater and intra-rater reliability of the pre- and post-tests

Scorers	Pre-test		Post-test		Overall
Scorer 1	0.86		0.80		
Scorer 2	0.83	0.88	0.85	0.86	0.88

3. Results

In this section, participants' speaking achievement scores will be statistically analyzed in terms of significance and difference in performance taking pre-test and post-test scores into account. In the analysis, statistics for control group and experimental group will be presented separately; subsequently, they will be compared regarding statistical values.

3.1. The Effect of Practice on Speaking Achievement in Control Group

Data on Table 3 presented below gives information about the differences in participants' speaking achievement scores, and it can be suggested that there was an increase in speaking achievement levels of the participants. According to values in the table, total mean score for pre-test was 58.91 while post-test mean score was 72.83. When it comes to specific values, in grammar section pre-test mean score was 17.12, and post-test mean was 21.00; vocabulary pre-test mean score was calculated as 17.12, and post-test mean was 19.50; intelligibility pre-test mean score was 13.08, and post test score was 16.83; fluency pre-test mean score was computed as 5.50 while post-test mean score was 6.75. Lastly, task achievement mean scores also showed an increase from pre-test to post-test. Task achievement pre-test mean score was calculated as 6.08 while post-test mean score was found to be 8.75. In short, it is obvious that speaking performance of the participants in control group changed for the better after speaking practice sessions, considering the increase in speaking achievement mean scores.

Table 3. Speaking Achievement for the Control Group

		Mean	Std. Deviation	Std. Error Mean
Grammar	Pre-test	17.12	5.55	1.13
	Post-test	21.00	5.00	1.02
Vocabulary	Pre-test	17.12	5.48	1.12
	Post-test	19.50	5.15	1.05
Intelligibility	Pre-test	13.08	2.88	.59
	Post-test	16.83	2.94	.60
Fluency	Pre-test	5.50	1.84	.37
	Post-test	6.75	1.70	.35
Task Achievement	Pre-test	6.08	1.69	.34
	Post-test	8.75	1.19	.24
Total score	Pre-test	58.91	16.36	3.34
	Post-test	72.83	14.70	3.00

Based on data presented in Table 4 shown below, it can be suggested that there was a considerable increase in participants' speaking achievement scores. In addition, it must be noted that all areas except for vocabulary section, the significance values were calculated as .00. Significance values for grammar, intelligibility, fluency, and task achievement were computed as .00 in value. However, significance value for vocabulary was found .05. In addition, significance value for total scores in pre-test and post-test was calculated as .00. Therefore, it can be concluded that the comparison of pre-test and post-test scores provided a statistically significant correlation except for vocabulary section.

Table 4. The effect of traditional speaking activities on speaking performance

	Paired Differences					
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		Sig.(2-tailed)
				Lower	Upper	
Grammar	3.87	5.96	1.21	1.35	6.39	.00
Vocabulary	2.37	5.86	1.19	-0.10	4.85	.05
Intelligibility	3.75	3.50	0.71	2.27	5.22	.00
Fluency	1.25	1.77	0.36	0.50	1.99	.00
Task Achievement	2.66	1.57	0.32	1.99	3.33	.00
Total score	13.91	16.75	3.41	6.84	20.99	.00

3.2. The Effect of Practice on Speaking Achievement in Experimental Group

As evidenced in Table 5 shown below, there was a considerable difference between speaking achievement scores of participants gained in pre-test and post-test. Statistical data in Table 6 indicates that total score means increased to 81.65 from the score of 63.65. When each section separately examined, it can be seen that mean scores in grammar section changed from 19.65 to 24.00; in vocabulary section, pre-test mean score was 18.15 while post-test mean score was 22.50; in intelligibility

section, pre-test score was calculated as 13.20, but it was found to be 18.70 in post-test; in fluency section, mean score shifted from 6.10 to 7.50; and finally in task achievement section, pre-test mean score was 6.55 while post-test mean score was computed as 8.95

Table 5. Speaking Achievement for the Experimental Group

		Mean	Std. Deviation	Std. Error Mean
Grammar	Pre-test	19.65	5.28	1.18
	Post-test	24.00	4.46	.99
Vocabulary	Pre-test	18.15	5.88	1.31
	Post-test	22.50	5.20	1.16
Intelligibility	Pre-test	13.20	3.58	.80
	Post-test	18.70	1.75	.39
Fluency	Pre-test	6.10	1.77	.40
	Post-test	7.50	1.76	.39
Task Achievement	Pre-test	6.55	1.67	.37
	Post-test	8.95	1.47	.33
Total score	Pre-test	63.65	16.55	3.70
	Post-test	81.65	12.97	2.90

Table 6 below presents statistical data on significance values of pre-test and post-test administered to participants in experimental group. According to data presented in the table, it was suggested that all sections indicated significant correlation. Regarding the total score means and its significance value of .00, it can be stated that there was a significant correlation between pre-test and post-test scores of participants in experimental group. Generating .00 significance value, sections of grammar, intelligibility, fluency, and task achievement scores can be thought to have a significant correlation between pre-test and post-test scores. Lastly, vocabulary section had significance value of .01, which also suggested that there was a significance correlation.

Table 6. The effects of SL on speaking performance

Paired Differences						
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		Sig. (2-tailed)
				Lower	Upper	
Grammar	4.35	5.01	1.12	2.01	6.69	.00
Vocabulary	4.35	6.19	1.38	1.45	7.25	.01
Intelligibility	5.50	2.89	.65	4.15	6.85	.00
Fluency	1.40	1.85	.41	.53	2.26	.00
Task Achievement	2.40	1.35	.30	1.77	3.03	.00
Total score	18.00	14.49	3.24	11.22	24.78	.00

3.3. Comparison of Traditional Speaking Activities and SL Speaking Activities

According to the data presented in Table 7, no significant correlation between pre-test scores of control and experimental groups was found when scores of both groups were compared. However, mean

scores of total pre-test scores compared, and total mean score for the control group was found to be 58.92, while mean score for the experimental score was calculated as 63.65. In spite of the difference in total mean scores, no significant correlation was detected between two groups considering the .95 significance value. For grammar, mean score for control group was 17.12, while it was 19.65 for the experimental group, which showed no significant correlation with significance value of .99. Regarding vocabulary, control group mean score was 17.12, and experimental group mean score was 18.15. However, no significant difference was computed in the analysis which generated significance value of .82. In addition, considering intelligibility, mean score for the control group was 13.08, and 13.20 for the experimental group, showing no significant difference with the score of .39. When it comes to fluency, no significant difference was detected considering the significance value of .59. However, control group’s mean score was 5.50, whereas experimental group’s mean score was 6.10. Finally, as for task achievement, mean score for control group was 6.08, while it was 6.55 for experimental group. Yet, there was no significant difference between pre-test scores regarding fluency since significance value was found to be .95.

Table 7. Comparison of traditional and SL activities (Pre-test)

	Group	Mean	Std. Deviation	Std. Error Mean	F	Sig.
Grammar	Control Group	17.12	5.56	1.13	.00	.99
	Experimental Group	19.65	5.28	1.18		
Vocabulary	Control Group	17.12	5.49	1.12	.05	.82
	Experimental Group	18.15	5.88	1.31		
Intelligibility	Control Group	13.08	2.89	.59	.74	.39
	Experimental Group	13.20	3.58	.80		
Fluency	Control Group	5.50	1.84	.37	.29	.59
	Experimental Group	6.10	1.77	.40		
Task Achievement	Control Group	6.08	1.69	.34	.00	.97
	Experimental Group	6.55	1.67	.37		
Pretest total score	Control Group	58.92	16.36	3.34	.00	.95

In a similar way, post-test scores for both groups are presented in Table 8, and it showed that there was no meaningful correlation between post-test scores of control and experimental groups. However, it can be deduced that participants in experimental group scored higher compared to control group scores. Considering total mean scores, significance value was found to be .93, suggesting there was no significant difference between two groups. Total mean score for control group was 72.83, while it was 81.65 for experimental group. Mean scores for grammar was calculated as follows: 21.00 for control group, and 24.00 for experimental group. Considering the significance value of .96, it was suggested that there was no significant difference between two groups. Moreover, regarding vocabulary, mean score for control group was 19.50, and 22.50 for experimental group. However, there was no meaningful correlation between two groups, taking value of .65 into consideration. For intelligibility, control group mean score was 16.83, and experimental group mean score was 18.70. According to the analysis, significance value was .18, and there was no significant difference between post-test scores. Furthermore, considering fluency, control group’s mean score was 6.75, while experimental group’s mean score was 7.50, and there was no significant difference between two groups, because significance value was calculated as .96. Lastly, task achievement mean score for control group was 8.75, and 8.95 for experimental group. Significance value for task achievement scores for two groups was .93, which suggested that there was no significant difference between post-test scores of two groups.

Table 8. Comparison of traditional and SL activities (Post-test)

	Group	Mean	Std. Deviation	Std. Error Mean	F	Sig.
Grammar	Control Group	21.00	5.00	1.02	.00	.96
	Experimental Group	24.00	4.46	.99		
Vocabulary	Control Group	19.50	5.16	1.05	.21	.65
	Experimental Group	22.50	5.20	1.16		
Intelligibility	Control Group	16.83	2.94	.60	1.83	.18
	Experimental Group	18.70	1.75	.39		
Fluency	Control Group	6.75	1.70	.35	.00	.96
	Experimental Group	7.50	1.76	.39		
Task Achievement	Control Group	8.75	1.19	.24	.47	.49
	Experimental Group	8.95	1.47	.33		
Posttest total score	Control Group	72.83	14.70	3.00	.00	.93
	Experimental Group	81.65	12.97	2.90		

4. Conclusions

Three conclusions can be reached in the study. First, it can be concluded that the use of traditional speaking activities in speaking classes increase speaking achievement. Speaking proficiency levels are positively affected by the traditional speaking sessions in a way that grammar and vocabulary capabilities are elevated, intelligibility and fluency of oral responses are developed, and finally learners' ability to find appropriate responses to situations indicates improvement. Second, similarly, it is to be concluded that the use SL in speaking classes considerable contributions to speaking achievement regarding the performance-related increase in grammar, vocabulary, intelligibility, fluency, and task achievement. In other words, grammar and vocabulary capabilities are positively affected by SL speaking sessions. Furthermore, the use of SL in speaking activities regarding sentences produced indicates a considerable development in fluency, intelligibility, and ability to give appropriate responses. Last, when a comparison between traditional and SL-oriented speaking sessions is made, it can be concluded that both environments shows a positive influence on speaking achievement levels. However, it can be stated that SL's contribution to speaking performance surpasses that which traditional speaking sessions have accomplished. In other words, SL greatly improves grammar and vocabulary capacities of learners. Additionally, SL speaking sessions are useful for developing intelligibility, fluency and task achievement levels.

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