

# **The Effect of a Facebook Game that Requires English Vocabulary Knowledge on Students' English Vocabulary Development**

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## **ABSTRACT**

This research examines the effect of a Facebook game (Pearl Peril) that requires English vocabulary knowledge on students' English vocabulary development. The participants of the study include 7th year students in a private middle school in Turkey. Of the experimental models, this study uses a pretest-posttest control group model. Initially, a vocabulary test that was developed by the researchers was conducted on 81 middle school students in Edirne for analyzing validity and reliability. Subsequently, this test was applied as a pretest to both control and experiment groups. Following the application of the pretest, students in the experiment group were required to play Pearl Peril for one month. In the course of this one month, the words in Pearl Peril were taught to control group in regular classes as a part of the syllabus. At the end of this procedure, the vocabulary test that was used as a pretest was administered to both groups this time as a posttest. The study results show a significant difference between the test scores of the control and experiment groups. Thus, the current study is important in terms of exemplifying how to benefit from various social media applications in educational practices.

*Key Words:* Social media, Facebook, English achievement, Vocabulary development, Foreign language education

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## INTRODUCTION

The globalizing World has minimized the distance between individuals and as a byproduct the demand to learn foreign languages has increased dramatically. According to ALTO Global Direction in Language Travel report (2008), 1.3 million students left their homeland to study English abroad in 2007. British Council report (2004) predicts that this number will reach 2.6 million students in 2020. The same report indicates that the number of individuals who are trying to learn a language other than English is even more than that number. For example, while the number of Mandarin learners is approximately 20 million, this number is expected to reach 200 million learners in the following years. All these numbers are outcomes of the global world that directly impact economies, education, human relations, cultures, and politics.

Contemporarily, one of the primary means of teaching and learning foreign languages is Internet (Sperling, 1997; Warschauer, Schetzer & Meloni, 2000; Nah, White & Sussex, 2008; Wang & Coleman, 2009). The reason for the popularity of internet as a foreign language instructional tool is its role in enabling visual and written interaction with foreign language speakers as well as providing access to visual materials, texts, movies, news, up to date and historical information, games, and educational resources in foreign languages (Warschauer & Healey, 1998; Kern, 2014). Besides foreign language learners, access to these resources makes Internet of an important means of teaching for FL instructors (Depoe, 2001). The increasing popularity of Internet as a FL instructional tool is related to the increasing number of Internet users all round the world in the 21st century.

Technological innovations such as World Wide networks and internet have made it easier for individuals to communicate and interact with other folks. Research conducted on the use of Internet show that the number of Internet users has been increasing rapidly day by day. According to Internet Society Global Internet report (2014) the number of Internet users in 2014 has reached approximately 3 billion. The same report shows that while only 1% of the world population was using Internet in 1995, this percent has reached 40 in 2014. From 1999 to 2013, the number of Internet users increased nearly 10 times. While China with 642.000.000 users tops the list of total Internet users, Turkey with 35,258,888 users is positioned at the 18<sup>th</sup> rank globally (International Live Stats, 2014).

Internet use results revealed by Turkish Statistics Institution regarding 2014 show that 53.8 % of the population between the ages 16-73 are using Internet. Compared to the 2013 results which showed that internet use was 48.8 %, this result demonstrates a considerable increase in one year. Additionally, Internet usage is more frequent for individuals between the ages 16-24 (TÜİK Hanehalkı Bilişim Teknolojileri Kullanım Araştırması, 2014). According to International Telecommunications Union (ITU), while the number of Internet users in Turkey at the beginning of 2000s was 2 million people, this number has increased 1750% during the last decade.

Research results on what motivates people to use internet in Turkey show that, 78.8% of the individuals use internet to access social media, 74.2% use internet to follow online news and read journals, 67.2% use internet to follow shopping sites, 58.7 % use internet to play games, watch movies, listen to music, and 53.9 % use internet to send or read emails (TÜİK Hanehalkı

Bilişim Teknolojileri Kullanım Araştırması, 2014). These results show that social media is the most important reason for Internet users to be online in Turkey. In parallel to TUIK's findings, Google Consumer Barometer results (2014) show that Turkey is the world leader in the number of social media users per country all around the world (Consumer Barometer, 2014).

One of the key websites that is connected with the high number of social media users is Facebook. Facebook is a social networking service that offers its users the opportunity to connect other users, access different communities, and share resources and information in networks created by users (Gonzales & Vodicka, 2010). One of the features that differentiate Facebook from other social media types is its interconnection with different online applications. There are more than 7000 applications on Facebook that were created by either Facebook itself or its users (Serhateri & Yıldırım, 2014). As from April 2013, there are more than 1 billion Facebook users around the World. In Turkey, the number of Facebook users is 33 million and most of these users are from the young generation (Serhateri & Yıldırım, 2014). According to Ministry of Turkish Youth and Sports' Youth and Social Media Research Report (2014), while 86% of the young generation in Turkey access social media at least once a day, 72% connects to social media multiple times in day. One in every three teenagers spends at least 3 hours a day on social media. This ratio is higher for single individuals and for the people between the ages 15-17. The primary reason for the 60% of people to use social media in Turkey is entertainment. All these numbers reflect the commonality of social media and Facebook usage in Turkey.

Considering the popularity of Facebook use among the youth, it is important to design educational activities that can use Facebook to support educational practices. Some educational applications on the use of Facebook for educational purposes have created positive outcomes for both students and instructors (see: Gee, 2005; Mason, 2006; Ellison, 2008; Hoffman, 2009; Lantolf & Thorne, 2006; Baran, 2010; Mills, 2011; Öztürk & Akgün, 2012). Moreover, in studies that used Facebook as a contributory factor to education, researchers identified higher rates of student achievement and motivation. For example, Blattner and Fiorini (2009) stated that Facebook linked foreign language teaching applications helped the students to construct positive relationships, involved teachers to participate in student popular culture, and motivated students to interact with their teachers, classmates, and target language speakers. Similarly, McBride (2009) argued that setting up a connection between foreign language teaching practices and Facebook applications will motivate students to learn the target language and participate in foreign language courses. Eren (2012) found that students have positive attitudes in terms of relating foreign language learning practices to Facebook applications. Designing foreign language instruction activities on Facebook also improves students' English proficiency (Chu Shih, 2013).

One way of using Facebook to teach foreign languages is to benefit from the *educational games* that Facebook includes. There is multiple research on the constructive effects of educational computer games and social media based games on students' educational development (Çetin, Sözcü & Kınay, 2012; Jasso, 2012; Siegle, 2011; Peterson, 2010; Piirainen-Marsh & Tainio, 2009; Robertson & Howells, 2008; Ranalli, 2008; Clark, 2007; Şahhüseyinoğlu, 2007; Miller & Hegelheimer, 2006; Yip & Kwan, 2006; Gee, 2003; Aldrich, 2004). According to Lee (2000), computer and educational digital game assisted language teaching practices increase

student motivation and achievement, aid the learning process with various resources, create multi-dimensional interaction opportunities, and individualize the learning process. A study by Çetin, Sözcü, and Kınay (2012) found a positive significant relationship between foreign language vocabulary development and playing education integrated Facebook games. Correspondingly, Miller and Hegelheimer (2006) studied how the game "The Sims" can be combined with foreign language vocabulary development. Their study results show that playing The Sims had a positive effect on learning the 30 words that were examined in the study. In a similar study, Ranalli (2008) also used The Sims for vocabulary instruction. The findings of his study overlap with what Miller and Hegelheimer (2006) had found. In another study, Şahhüseyinoğlu (2007) investigated the effect of a computer game named "Compad" on students' foreign language development and identified that playing the Compad game aided students' critical thinking abilities and contributed to their speaking and discussion skills. Yip and Kwan (2006) identified that students preferred digital game based foreign language courses to traditional activity based classes.

Considering the common use of Facebook among the youth in Turkey and the positive effects of educational social media games on student achievement, this study investigates the effect of a Facebook game (Pearl Peril) that requires English vocabulary knowledge on students' English vocabulary development.

### ***Sub-objectives***

1. Is the mean of the experiment group's posttest score significantly higher than the pretest mean score?
2. Is there a significant difference between the control group's pretest score mean and posttest score mean?
3. Is the mean of the experiment group's posttest score significantly higher than the mean of the control group's posttest score?

## **METHOD**

### **Research Model**

Of the experimental models, this study used a pretest-posttest control group model (Karasar, 2000). While the control group (N=14) played the Facebook game (Pearl Peril) for one month, the words in Pearl Peril were taught to control group (N=14) in regular classes as a part of the syllabus. Pearl's Peril is a concealed object game (also known as hidden picture game) that was launched on 5 March 2013 on the Facebook social media platform. Players are given a list of tools and items to discover within a static scene. Afterwards, they receive points for each item found, and score multipliers for finishing the task quickly. Pearl Peril includes different levels of puzzles and each puzzle requires players to find and assemble specific items linked closely to the story. To achieve high scores in the game, players are required to have or develop English vocabulary knowledge to match the correct item with the correct written word.

Two experts from the field of foreign language teaching were consulted for the appropriateness of the game to be integrated into English language teaching. In light of their confirmation that the game required English vocabulary knowledge, Pearl Peril was selected as the means of language learning.

Table 1 demonstrates the design of the study

Table 1. *Research design*

Group	Pre Application process	Application Type	Post Application
Control	Pretest	Traditional Classroom applications	Posttest
Experiment	Pretest	Facebook game application	Posttest

### The Study Group

The study group includes 7th year students in a private middle school in Turkey/Sakarya. While the classroom 7C was selected as the control group, classroom 7D was chosen for the experiment group. In regards to students' background vocabulary knowledge, independent groups t-test was conducted. Table 2 demonstrates the t-test results.

Table 2. *Independent group t-test results in regards to students' background vocabulary knowledge*

Groups	N	Levene test for the equality of variances		$\bar{X}$	S	t	p	Eta <sup>2</sup> ( $\eta^2$ )
		F	p					
Control	14	1.08	.31	12.50	3.11	.14	.00	.89
Experiment	14			12.64	2.34			

While calculating t-test that compares two independent groups, it is important to consider whether there is variance difference between these two groups or not. Thus, the equality of the variances was tested by using the Levene test. The Levene test results show that the variances are equal (F=1.08; p>.05). The results on Table 2 reveal no significant difference between the pretest scores of the experiment and control groups (t=0.137, p>.05). Therefore, it can be argued that the two groups are in equal in terms of the selected variable.

### Data Collection Tool

A multiple choice vocabulary test was developed by the researchers to measure students' English vocabulary knowledge. For analyzing validity and reliability estimates of the test, the test was conducted on 81 middle school 7th year students in Edirne. The initial version of the test consisted of 30 items. During the test development procedure, an expert from the field of English Language Teaching was consulted for the relevance of the items as related to the field of language teaching. Subsequently, an expert from the field of Measurement and Evaluation in Education was consulted for determining the structural appropriateness of the test. In accordance with the experts' feedback, several arrangements were done and the final version of the test was constructed. The item analysis of the test was determined according to 27% top and bottom group method. Table 3 shows the difficulty and discrimination levels of the items.

Table 3. *Item difficulty and discrimination value results*

Item No	p	rjx	r	Item No	p	rjx	r	Item No	p	rjx	r
M1	.43	.32	.16	M11	.20	<b>-.14</b>	<b>-.06</b>	M21	.75	.50	.22
M2	.52	.50	.25	M12	.59	.36	.18	M22	.18	<b>.00</b>	<b>.00</b>
M3	.55	.45	.23	M13	.48	.59	.30	M23	.57	.68	.34
M4	.59	.45	.22	M14	.45	.64	.32	M24	.34	.32	.15
M5	.59	.64	.31	M15	.36	<b>.27</b>	<b>.13</b>	M25	.64	.64	.31
M6	.52	.41	.20	M16	.41	.45	.22	M26	.11	<b>.05</b>	<b>.01</b>
M7	<b>.82</b>	.36	.14	M17	.30	<b>.23</b>	<b>.10</b>	M27	.45	.55	.27
M8	.43	.41	.20	M18	.77	.45	.19	M28	.66	.32	.15
M9	.25	<b>.05</b>	<b>.02</b>	M19	.61	.50	.24	M29	.27	<b>.09</b>	<b>.04</b>
M10	.48	.50	.25	M20	.50	<b>.27</b>	<b>.14</b>	M30	.32	<b>.27</b>	<b>.13</b>

Good items have a discrimination index of .40 and higher; reasonably good items from .30 to .39; marginal items from .20 to .29, and poor items less than .20 (Ebel & Frisbie, 1986). Thus, items (M9, M11, M15, M17, M20, M22, M26, M29, M30) that have discrimination index of less than 0.30 were excluded from the study. An item's difficulty level is the mean of item scores (Crocker & Algina, 1986). If an item's difficulty level is close to .80 or 1, it shows that the question is easy. But, if the item difficulty level is close to 0, then that item is difficult (Atılgan, 2007). In this study, the item difficulty levels display that most items have a fair difficulty. However, M7 was excluded from the test as it had a value that was higher than .80 identifying it as an easy item. In addition to differentiation and difficulty levels of the items excluded from the study, their reliability values are also low as they are close to 0.

To test the reliability of test Kuder Richardson 21 (KR 21) was used. If the difficulty levels of the items in a test are not highly distinct from each other, KR 21 is used to measure the reliability of the data obtained from the test (Tekin, 2003). The KR 21 coefficient was found as .97 which shows that the data gathered from the test was reliable.

### Data Collection

Vocabulary test developed by the researchers was applied as a pretest to both control and experiment groups. After this procedure, students in the experiment group were instructed to play Pearl Peril for one month. To test whether students were playing this game or not, a private game group on Facebook was created and students' access to this game was observed. During this one month period, the vocabulary included in Pearl Peril was taught to the control group in regular classes as a part of the syllabus. At the end of this process, the vocabulary test that was used as a pretest was administered to both groups this time as a posttest.

### Data Analysis

In order to use the parametric methods, data should meet the normality assumption (Warner, 2008). Table 4 shows that results in relation to the normality assumption of the groups' pretest and posttest scores.

Table 4. Descriptive statistics values of experiment and control group's pretest and posttest scores

	N	$\bar{X}$	Mode	Median	Skewness	Kurtosis
Control Group (Pretest)	14	12.50	12	12	.40	-.00
Control Group (Posttest)	14	14.14	15	14.50	.16	-.31
Experiment Group (Pretest)	14	12.64	12	12.50	.00	.34
Experiment Group (Posttest)	14	19.79	20	20.00	-2.80	7.68

In a standard normal distribution the *skewness* and *kurtosis* coefficients are zero. If these values are between -1 and +1, then one can say that the distribution does not extremely deviate from normal distribution (Mertler & Vannatta, 2005). Table 4 shows that control group and experiment group's skewness and kurtosis values are between -1 and +1. Hence, the scores are normally distributed. Additionally, research says that if the mean, mode, and median values are close to each other, then scores are normally distributed (Güler, 2011). In this study, the values are close to each other. However, the values that belong to the experiment group's posttest scores are not among these values. Hence, experiment group's posttest scores are not normally distributed.

The control group's pretest and posttest scores and the experiment group's pretest scores displayed normal distribution. Thus, *independent samples t test* was conducted to identify the significance of difference between both group's pretest scores. *Dependent samples t test* was operated to determine the difference between the control group's pretest and posttest scores. To identify the significance of difference between both group's posttest scores and the experiment group's pretest and posttest scores, nonparametric methods were used as the normality of distribution could not be established. *Mann Whitney U test* was used to examine the significance of difference between the posttest scores of both groups. *Wilcoxon signed-rank test* was operated to determine the significance of difference between the experiment group's pretest and posttest scores. The minimum significance level for statistics obtained from the study was taken as .05.

## FINDINGS

*Wilcoxon signed-rank test* was done to examine the first sub-objective (Is the mean of the experiment group's posttest score significantly higher than the pretest mean score?) of the study. Table 5 shows Wilcoxon signed-rank test results.

Table 5. Wilcoxon signed-rank test results

Posttest-Pretest	N	Rank Mean	Rank Sum	z	p	Eta <sup>2</sup> ( $\eta^2$ )
Negative Rank	0	.00	2.34	3.31*	.00	.88
Positive Rank	14	7.50	.57			

\*Based on negative ranks fundamental

Results on Table 5 show that there is a significant difference between the pretest and posttest scores of the students in favor of post experiment (posttest) scores ( $z = 3.31$ ,  $p < .05$ ;  $\eta^2 = .89$ ). According to Cohen (1988) the calculated effect size is high ( $.89 > .14$ ). At least 88% of the positive changes in students' test scores stems from the Facebook game.

*Dependent samples t test* was conducted to inspect the second sub-objective (Is there a significant difference between the control group's pretest score mean and posttest score mean?) of the study. Findings in relation to this analysis can be found on Table 6.

Table 6. *Dependent samples t test results in relation to control group's pretest and posttest scores*

Tests	N	Levene test for the equality of the variances		$\bar{X}$	S	t	p	Eta <sup>2</sup> ( $\eta^2$ )
		F	p					
Pretest	14	.50	.49	12.50	3.10	1.39	.12	.19
Posttest	14			14.14	2.47			

Levene test that was conducted for the homogeneity of the variances assumption show that the variances were not homogenous ( $F = .50$ ;  $p > .05$ ). However, t test is a strong parametric test and it can be used even if the variances are not homogenous. As a general rule, when there are small groups, the group sizes are expected to be equal (Ravid, 2010). There is no significant difference between the pretest and posttest scores of the control group ( $t = 1.39$ ,  $p > .05$ ;  $\eta^2 = .12$ ).

Mann Whitney U test was used to handle the third sub-objective (Is the mean of the experiment group's posttest score significantly higher than the mean of the control group's posttest score?) of the study. Table 7 demonstrates Mann Whitney U test results.

Table 7. *Mann Whitney U test results*

Group	N	Rank Mean	Rank Sum	U	p	Eta <sup>2</sup> ( $\eta^2$ )
Control	14	7.61	106.50	1.50	.00	.28
Experiment	14	21.39	299.50			

According to Table 7, there is a significant difference between the control group and experiment group's posttest scores in favor of experiment group ( $U = 1.50$ ,  $p < .05$ ;  $\eta^2 = .28$ ). According to Cohen (1988) the calculated effect size is high ( $.28 > .14$ ). At most 28% of the change in students' test scores can be explained by group (experiment and control group) variable.

## DISCUSSION AND CONCLUSION

This research studied the influence of a Facebook game (Pearl Peril) that necessitates English vocabulary knowledge on students' English vocabulary development. The findings of the study show that there is a significance difference between the group of students who played the Facebook game and the other group who did not play the game. This result displays how a social media game can positively affect English vocabulary development. The findings of the current study display similarities with other related research. For instance, the positive influence

of computer and social media online games on foreign language vocabulary knowledge was emphasized by Nguyen and Khuat (2003). Correspondingly, Yip and Kwan's (2006) study stands as an example for the usefulness of online games in vocabulary learning for some undergraduate students. In their quasi-experimental study, the experimental group was exposed to vocabulary selected from two websites that involved games, while the control group learnt the equivalent vocabulary through activity-based lessons. A pre-test and post-test results indicate that the experimental group outperformed the control group statistically in the post-test. In another study, Miller and Hegelheimer (2006) used "The Sims" to teach vocabulary and identified a positive relationship between the game and vocabulary development. Likewise, Jasso (2012) found that the students who played "The Sims" had higher scores in a test that measured constructive language use on clothing. Çetin, Sözcü and Kınay (2012) used a Facebook game (Farmville) to teach vocabulary in English. Their study results found a significant relationship between playing Farmville and indirect vocabulary acquisition.

Another point that the current research has highlighted is how education related social media applications can contribute to fulfilling educational goals. Hence, the findings of the study overlap with other research (Gee, 2005; Mason, 2006; Ellison, 2008; Hoffman, 2009; Lantolf & Thorne, 2006; Baran, 2010; Mills, 2011; Siegle, 2011; Öztürk & Akgün, 2012) that exemplified how to use social media to support education. Although the commonality of social media and Facebook use among the youth is a matter of concern for educators and parents who consider it as time consuming, the findings of the current study and related research show that when related with educational purposes, such applications can turn into positive materials that support student achievement. For instance, Siegle (2011) argued that educational games on social media applications increase student motivation and positively influence students' school performance.

Considering the popularity and commonality of Facebook and social media use among the young generation in Turkey, it does not seem in the best interest of students to stop them from spending time on these kinds of applications. Therefore, instead of pushing them to stop using social media sites, the applications on these sites should be integrated to education programs and courses presented to students in order to influence students to spend time on social media sites for the sake of academic achievement. Moreover, identifying the application that could be related to educational practices and introducing these applications to students will turn social media use to an academic advantage for students. The overall analysis of the research findings show that if social media applications can be linked to educational practices, students can positively make use of these applications. In this sense, rather than regarding social media use as a waste of time, teachers should search for online applications that can be connected to their educational practices.

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# Facebook Üzerinde İngilizce Sözcük Bilgisini Gerektiren Bir Oyun Uygulamasının Öğrencilerin İngilizce Sözcük Öğrenimlerine Olan Etkisi

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## Giriş

Küreselleşen dünyayla birlikte bireyler arasındaki mesafeler kapanmakta ve bu durum farklı dilleri öğrenmeye olan gereksinimi doğurmaktadır. ALTO Global Direction in Language Travel raporuna (2008) göre bir yıl içerisinde 1,3 milyon öğrenci sadece İngilizce öğrenmek için yurt dışına çıkmıştır. Günümüzde yabancı dil öğrenmek ve öğretmek için kullanılan en önemli kaynaklardan birisi internettir (Sperling, 1997; Warschauer, Schetzer & Meloni, 2000; Wang & Coleman, 2009; Nah, White & Sussex, 2008). Bunun nedeni internetin farklı dillerde oluşturulmuş çok sayıda görsellere, metinlere, filmlere, haberlere, güncel bilgilere, oyunlara, eğitimsel kaynaklara erişimi sağlaması ve aynı zamanda hedef dil konuşucusu kişilerle hem yazılı hem de sözlü etkileşime geçmeyi kolaylaştırmasıdır (Kern, 2014; Warschauer & Healey, 1998). İnternet aynı zamanda sağladığı çevrimiçi kaynaklar sayesinde dil öğretmenlerinin de ilgisini çekmektedir (Depoe, 2001). İnternetin yaygın bir dil öğrenme ve öğretme aracı olarak kullanılmasının diğer bir sebebi de dünyada internet kullanımının 21. yüzyılla birlikte daha kapsamlı hale gelmesidir.

Türkiye’de internet kullanım amaçları dikkate alındığında, 2014 yılının ilk üç ayında internet kullanan bireylerin % 78,8’i sosyal paylaşım sitelerine (Facebook) katılım sağlarken, bunu % 74,2 ile çevrimiçi haber, gazete ya da dergi okuma, % 67,2 ile mal ve hizmetler hakkında bilgi arama, % 58,7 ile oyun, müzik, film, görüntü indirme veya oynatma, % 53,9 ile e-posta gönderme-alma takip etmektedir (TÜİK Hanehalkı Bilişim Teknolojileri Kullanım Araştırması, 2014). Facebook’un gençler arasındaki popülerliği ve gençlerin Facebook üzerinde geçirdikleri zaman dilimi düşünüldüğünde Facebook’un eğitime destek amaçlı kullanımlarının tasarlanması önem kazanmaktadır. Bu konuda yapılan bazı uygulamalar öğrenciler ve eğitim adına olumlu sonuçlar doğurmuştur (bkz: Gee, 2005; Mason, 2006; Ellison, 2008; Hoffman, 2009; Lantolf ve Thorne, 2006; Baran, 2010; Mills, 2011; Öztürk & Akgün, 2012). Facebook’un yabancı dil eğitimi ile ilişkilendirilebilecek olan önemli özelliklerinden birisi içerdiği *eğitsel oyunlardır*. Son zamanlarda bilgisayar oyunları ve sosyal medya tabanlı bilgisayar oyunlarının eğitimi desteklediği birçok araştırmacı tarafından tespit edilmiştir (Çetin, Sözcü ve Kınay, 2012; Jasso, 2012; Siegle, 2011; Peterson, 2010; Piirainen-Marsh & Tainio, 2009; Robertson & Howells, 2008; Ranalli, 2008; Clark, 2007; Şahhüseyinoğlu, 2007; Miller & Hegelheimer, 2006; Yip & Kwan, 2006; Gee, 2003; Aldrich, 2004).

Türkiye’de genç nüfus arasındaki yaygın Facebook kullanımından ve Facebook ile ilişkilendirilmiş eğitim uygulamalarının ve eğitsel oyunların olumlu sonuçlarından yola çıkarak

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bu çalışmada Facebook üzerinde İngilizce sözcük bilgisini gerektiren bir oyun uygulamasının (*Pearl Peril*) öğrencilerin İngilizce sözcük bilgisine olan etkisi araştırılmıştır.

### **Alt amaçlar**

1. Deney grubu öğrencilerinin söntest puan ortalamaları, öntest puan ortalamalarından manidar düzeyde yüksek midir?
2. Kontrol grubu öğrencilerinin öntest puan ortalamaları ile söntest puan ortalamaları arasında manidar düzeyde bir fark var mıdır?
3. Deney grubu öğrencilerinin söntest puan ortalamaları, kontrol grubu öğrencilerin söntest puan ortalamalarından manidar düzeyde yüksek midir?

### **Yöntem**

Araştırmada, deneysel modellerden öntest-söntest kontrol gruplu model (Karasar, 2000) kullanılmıştır. Facebook oyun uygulaması (*Pearl Peril*) deney grubunda (N=14) bir ay boyunca uygulanırken, kontrol grubunda (N=14) uygulanmamış ve Pearl Peril'de yer alan sözcükler normal sınıf içi ders uygulamaları ile birleştirilerek (müfredatın gerektirdiği şekilde) öğrencilere aktarılmıştır. Oyunun İngilizce öğretimi için uygunluğu konusunda İngiliz Dili Eğitimi alanında iki uzmanın görüşü alınmıştır. Uzmanların görüşleri doğrultusunda oyunun İngilizce sözcük bilgisi gerektirdiği ve çalışma için uygun olduğu onaylanmış ve bu doğrultuda oyun çalışmaya öğrenme aracı olarak dâhil edilmiştir.

### **Bulgular**

Araştırmanın birinci alt amacını (Deney grubu öğrencilerinin söntest puan ortalamaları, öntest puan ortalamalarından manidar düzeyde yüksek midir?) çözümleyebilmek için Wilcoxon işaretli sıralar testi yapılmıştır. Wilcoxon İşaretli sıralar testi sonuçları, öğrencilerin sözcük bilgisi testinden aldıkları deney öncesi ve deney sonrası puanları arasında, deney sonrası (söntest) lehine manidar bir farkın olduğunu göstermektedir. Araştırmanın ikinci alt amacını (Kontrol grubu öğrencilerin öntest puan ortalamaları ile söntest puan ortalamaları arasında manidar düzeyde bir fark var mıdır?) çözümleyebilmek için bağımlı örneklem için t testi yapılmıştır. Buna göre testlere ait varyansların homojenliği varsayımı için yapılan Levene testi sonucuna bakıldığında varyansların homojen olmadığı görülmektedir ( $F=50$ ;  $p>.05$ ); ancak t testi güçlü bir parametrik test olmasından dolayı varyansların homojenlik varsayımı sağlanmasa bile kullanılabilir. Kontrol grubunun öntest ve söntest sonuçları arasında fark manidar bulunmamıştır. Buna göre kontrol grubunun öntest ve söntest sonuçları arasında fark yoktur. Araştırmanın üçüncü alt amacı (Deney grubu öğrencilerin söntest puan ortalamaları, kontrol grubu öğrencilerinin söntest puan ortalamalarından manidar düzeyde yüksek midir?) için parametrik olmayan yöntemlerden Mann Whitney U testi yapılmıştır. Kontrol grubu ve deney grubu söntest puanları arasında deney grubu lehine manidar bir farklılık görülmektedir.

### **Sonuç, Tartışma ve Öneriler**

Bu çalışmada Facebook üzerinde İngilizce sözcük bilgisini gerektiren bir oyun uygulamasının (*Pearl Peril*) öğrencilerin İngilizce sözcük bilgisine olan etkisi araştırılmıştır. Yapılan çalışmadan elde edilen bulgular Facebook'ta yer alan Pearl Peril isimli İngilizce sözcük

bilgisine dayalı oyunu oynayan öğrencilerin İngilizce sözcük bilgisi düzeyleri ile oyun uygulamasını oynamayan öğrencilerin arasında manidar bir farklılık olduğunu göstermektedir. Elde edilen bu sonuç sosyal ortamda oynanan bir oyunun yabancı dile ait sözcük öğrenimine ilişkin olumlu etkisini ortaya koymaktadır. Çalışmanın sonuçları gerçekleştirilmiş olan benzer çalışmalarla birçok ortak noktaya sahiptir.

Türkiye’de gençlerin ve öğrencilerin Facebook ve sosyal medya kullanım sıklığı göz önüne alındığında, onları bu kullanımlardan vazgeçirmek çok mümkün gözükmemektedir. Dolayısıyla, onları bu tarz sitelerden ve uygulamalardan vazgeçirmeye çalışmak yerine, bu uygulamaları eğitim programlarıyla ve öğrencilere sunulan derslerle ilişkilendirmek öğrencilerin sosyal ağlarda geçirdikleri zamanı akademik başarı yararına kullanmalarını sağlayacaktır. Ayrıca eğitim ile ilişkilendirilebilecek sosyal medya uygulamaları belirleyip bunları öğrencilere tanıtmak ve öğrencileri sosyal medyanın eğitimle ilişkili olabileceği konusunda bilinçlendirmek okuldaki eğitim uygulamalarına katkı sağlayacaktır. Bu çalışma Facebook üzerinde İngilizce sözcük bilgisini gerektiren Pearl Peril isimli oyunun öğrencilerin İngilizce sözcük bilgisine olan olumlu etkisini göstermesi açısından yapılabilecek benzer eğitimsel çalışmalara örnek teşkil etmektedir.

*Anahtar Sözcükler:* Sosyal medya, Facebook, İngilizce başarı, Sözcük bilgisi, Yabancı dil öğretimi

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