

The Effect of Aquarium Method on the Bilingual Learners' Turkish Speech Anxiety^a

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Received: 11.02.2017 | Accepted: 19.07.2017

Abstract: The aim of the research is to reveal the effect of the aquarium method on the bilingual learners' Turkish speaking anxiety. In this study, experimental model with pre-test and post-test control group was used in which the quantitative research method was applied. The study group of the research is composed of 48 bilingual students who attended 7. class of the Milli Eğitim Vakfı middle school where is located Altıntepe Quarter of Van's Tuşba district in the 2015-2016 academic year. In the analysis of the data obtained as a result of the research, t-test statistic was used from parametric tests through SPSS 20 packet program. When the results of the research are evaluated in general: While there was no statistically significant difference between the experiment and control group students' Turkish speaking anxiety in the pre test data, statistically significant results were obtained in favor of the experimental group who the was applied aquarium technique for Turkish speaking anxiety (p: ,000 ? 0,05; t: -10,118) in the post test data. The results show that the aquarium method can be used in solving bilingual students' Turkish speaking anxiety.

Keywords: The Aquarium Method, Bilingual Student, Turkish Speaking Anxiety.

^a This study was produced from Yüzüncü Yıl University 2015-EF-B232 BAP project.

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Akvaryum Yönteminin İki Dilli Öğrencilerin Türkçe Konuşma Kaygılarına Etkisi

Öz: Arařtırmanın amacı, akvaryum yönteminin iki dilli öğrencilerin Türkçe konuşma kaygılarına olan etkisini ortaya koymaktır. Nicel araştırma yönteminin uygulandığı çalışmada ön test-son test kontrol gruplu deneysel model kullanılmıştır. Arařtırmanın çalışma grubunu 2015-2016 eğitim-öğretim yılında Van'ın Tuşba ilçesine baėlı Altın-tepe Mahallesi'nde yer alan Milli Eğitim Vakfı Ortaokulu'nda 7.sınıfa devam eden deney ve kontrol grubunu oluřturan 48 iki dilli öğrenci oluřturmaktadır. Arařtırma sonucu elde edilen verilerin analizinde SPSS 20 paket programı aracılıėıyla parametrik testlerden t-testi istatistiėi kullanılmıştır. Arařtırma sonuçları genel olarak deėerlendirildiğinde: Deney ve kontrol grubu öğrencilerinin Türkçe konuşma kaygısı ön test verileri arasında istatistiksel olarak anlamlı bir fark bulunmazken, son test verilerinde Türkçe konuşma kaygısı (p: ,000 > 0,05; t: -10,118) üzerinde akvaryumun uygulandığı deney grubu lehine istatistiksel olarak anlamlı sonuçlar elde edilmiştir. Sonuçlar iki dilli öğrencilerin Türkçe konuşma kaygılarının giderilmesinde akvaryum yönteminin kullanılması gerektiėini göstermektedir.

Anahtar Kelimeler: Akvaryum Yöntemi, İki Dilli Öğrenci, Türkçe Konuşma Kaygısı.

© Bozavlı, Ebubekir, "The Effect of Aquarium Method on the Bilingual Learners' Turkish Speech Anxiety", *Iğdır Üniversitesi Sosyal Bilimler Dergisi*, 11, 2017, ss. 1-30.

Introduction

Language has a very important role in the socialization process by communicating with the individuals' environment. As a instruments of communication, the language makes a significant contribution to personal and social development by interrogating the events that develop in the environment of the individuals, evaluating events from different angles, to be socializing, generating and using information (Kardaş 2015). Systematic language instruction in educational institutions is conducted through four basic language skills. These are the education of listening, speaking, reading and writing. Each of these skill areas have vital importance in order to have a sufficient language and communication skills. Speaking is the first language skill that comes to mind in terms of communication is also an important part of the conversation. According to Uçgun (Uçgun 2007), the skill that is most needed for a person to sustain social relations is speech skill. Because speech is inseparable part of daily life. Children who started to school at this basic level of speaking habits, began to have a regular speech training in here. With this training, it is aimed to rehabilitate the deficiencies and inaccuracies of the child's speaking skills and to improve the speaking from the beginning of the school age.

In our country, the above-mentioned situation is valid for children whose mother language is Turkish. The situation is much different and difficult for bilingual students whose mother language is not Turkish. Before begin to make necessary explanations about the process of bilingual students' learning to speak Turkish, it is useful to explain what the bilinguals are. According to the definition adopted today, for the individual to be bilingual, it does not have to be competent at the same level in all languages used by that person in his/her daily life (Yılmaz 2014). To be bilingual is both thinking and talking and able to express himself/herself in two language. According to these definitions, it can be said that bilingualism is to be exposure the two language in the same time and using both lan-

guages adequately by the children.

When the studies on bilingualism in the literature can be investigated, It is pointed out that these studies are generally about Turkish people's communication problems experienced in their social life and solutions for these problems who live the countries like European countries, USA and Canada. Despite the fact that millions of bilingual citizens live in our country, the lack of scientific research on this subject is noteworthy as a great deficiency.

Particularly, it can be said that the citizens who living in Eastern, Southeastern regions of Turkey and some parts of Eastern Black Sea have started to learn Turkish as a second language from the school age. As well as reading and writing in Turkish language as a second language, having an effective ability to speak in Turkish is important in terms of being able to perform themselves.

For bilingual students, one of the important obstacles to have an effective Turkish speaking ability is fear and Turkish speech anxiety. The speech anxiety is a condition that more likely observed in front of the community for monolingual students, but for bilingual students it is observed both in public and in public.

In conversations between individuals, the anxiety of "I wonder, can I speak Turkish correctly or good? Can it be understood what I said? Does teacher like my Turkish speaking? affects negatively the realization of an effective speech. If the person is talking in front of the community, due to mispronunciation, wrong word selection and corrupted narratives, he/she afraid of falling into a small position and shy about. This situation largely prevents the individual's successful speech.

The most important way to minimize anxiety and fear of speech that individuals experienced is to practice of speaking abundantly in the face of the community. In this sense, it is of great importance to organise teaching activities that enable

students to talk in the face of community from early ages.

One of the teaching models that is suitable for students to develop communication skills, especially speaking skills, is "active learning". Active learning, a student-centered teaching method, gives a great importance to the living doing learning.

Active learning can be defined as an understanding that enables the individual to discover his/her own facts with his/her own actions, to acquire the necessary knowledge and skills by living and doing, adaptation it to the different situations, creating solutions, developing communication skills by collaborating and learning in the whole living space. Active learning and other contemporary teaching approaches have emerged as a solution to the situation that arises and a reaction to the traditional teaching (Maden 2011). For this reason, active learning practices have been very popular in recent years.

Thanks to the effective communication environment provided by "Aquarium", which is one of the active learning techniques, in educational activities, it is thought that bilingual learners who learn Turkish later will have positive results in the development of Turkish speaking skills. Also thanks to the teaching with aquarium, many important skills such as requesting to speak Turkish to bilingual learners, working with others, self-esteem, leadership, cooperation and effective communication habits can be gained. In this study, the effects of the teaching method of the aquarium on bilingual students' speech anxiety were tried to be investigated.

The Purpose of the Study

The main purpose of this research is to reveal the effect of the aquarium method on the bilingual students' Turkish speech anxiety. In accordance with this purpose; the answer was sought "Is there any effect of aquarium teaching method on the bilingual students' Turkish speech anxiety?"

Method

In this study, experimental model with pre-test and post-test control group was used in which the quantitative research method was applied.

Research Design

In this study, which was investigated the effect of the aquarium teaching method on the bilingual secondary school students' Turkish speech anxiety; pretest-posttest control group design was used. In this research design, researcher applies comparable operations and then examine their effects, and the results of such researches are expected to lead the researcher to the most conclusive results (Büyüköztürk 2016).

In this research design, there are two groups which were established through unbiased assignment. One group is used as test group and the other group is used as control group. In both groups, measurements are made before and after the experiment (Karasar 2008). In this study, two groups were selected from students who attended the 7.th grade of public secondary school where bilingual students were educated. By the unbiased assignment, one of the group assigned experimental group (7/A) the other as a control group (7/B). The research design is given below.

Table.1 The Research Design

Group	pretest	Process	posttest
Control	1. "Turkish Speech Anxiety Scale (TKKÖ)" was applied to the students in the pretest	Teaching with Turkish Curriculum Activities	1. "Turkish Speech Anxiety Scale (TKKÖ)" was applied to the students in the posttest
Experiment	1. "Turkish Speech Anxiety Scale (TKKÖ)" was applied to the students in the pretest	Teaching In Aquarium Teaching Method	1. "Turkish Speech Anxiety Scale (TKKÖ)" was applied to the students in the posttest

Study Groups

The study group of the research is composed of 48 bilingual students who attended 7th class of the Milli Eğitim Vakfı middle school where is located Altintepe Quarter of Van's Tuşba district in the 2015-2016 academic year. There were 27 students in the experimental group and 21 students in the control group. Experimental and control groups were determined with unbiased assignment.

Data Collection Tool

Turkish anxiety scale (CBC) was used as data collection tool in the research.

Speech Anxiety Scale (KKÖ)

This scale was developed by Sevim (2012). The required permissions was taken from Sevim for using his scale. The KKÖ consists of 20 items which was structured according to the five-digit Likert (1: Never, 2: Very little, 3: Sometimes, 4: Many times, 5: Always)grading scale. The scale items consist of three sub-dimensions. 1-11. items "speaker-focused anxiety", 12-17. items "environmental-oriented anxiety" and 18-20. items are related to "speech psychology-oriented anxiety". All of the items (20) in the scale are consist of negative judgments. The lowest score that can be taken from the scale is 20, the highest score is 100.In table 2 it was given information on coefficient range, score range, KKÖ rating data and interpretaions related to data (Sevim 2012).

Table 2. Evaluation range of arithmetic mean related to speaking anxiety scores.

Coefficient Interval	Score range	Rating	İnterpretaion
1.00-1.80	20-36	Never	Very low anxiety
1.81-2.60	37-52	Very little	low anxiety
2.61-3.40	53-68	Sometimes	Medium
3.41-4.20	69-84	Many times	High anxiety
4.21-5.00	85-100	Always	Very high anxiety

When the table 2 is examined, it is observed that the score range of 20-36 is "very low level anxiety", the score range of 37-52 score is "low level anxiety", the score range of 53-68 is the "medium level anxiety", the score range of 69-84 is the high level anxiety, the score range of 100 is "very high anxiety". The reliability of the KKÖ used to measure students' speech anxiety has been tested with the pretest application.The pre-application was made with 125 7th grade students, as a result of the pre-application, it was deterimated that for this study the Cronbachalpha reliability coefficient was 0.851. This result shows the utilizable of the scale.

The Studies Which was made Towards the Experiment Group

This study which investigated the effect of the aquarium method on speech concerns of bilingual students was made in the fall of the 2015-2016 education year. Before the applications of the aquarium method, "Speech Anxiety Scale" was applied to the experimental group as a pre-test and as a final test at the end of the application. The relevant theme in which the discussions were made in the experimental group, the work text related to theme which was proposed by MEB, the subject to be discussed and spoken in the Aquariums, the achievements related to Turkish speaking skills, number of students in circles and application calendar was given in the Table3.

Table 3. The Application Towards the Experimental Group

Theme	Week-Hour	The Text Suggested by MEB	The Topic of Speech-Discussion	The Aim of Speech and The Target Goals	Aquarium Groups
Pretest, 6 hours					
LOVE	First Week 4 hours	Nitüfer Prenses	Is the love more important or respect in the family?	1. Applying the rules of the conversation 3.Develop an speaking attitude suited for environment. 4.Speaking with standard Turkish 2. Effective use of voice and body language 1.He/She ad-	Aquarium outer circle fourteen students

				<p>justs his/her breath while he/she is talking.2. Speak with an audible voice.3. He/She pronounces the words correctly.</p> <p>9.He/She sets up eye contact with listeners.</p> <p>3. Making prepared speeches</p> <p>12. Uses speaking methods and techniques.</p>	<p>Aquarium inner circle thirteen students</p>
LOVE	Second Week 4 hours	Karamelli Akide Şekeri	<p>In the development of personality traits is the family more important or environment?</p>	<p>1. Applying the rules of the conversation</p> <p>10.Establish cause and effect relationships in conversation</p> <p>2. . Effective use of voice and body language</p> <p>1.He/She adjusts his/her breath while he/she is talking.2. Speak with an audible</p>	<p>Aquarium outer circle ten students</p>

				<p>voice.</p> <p>3. Making prepared speeches</p> <p>3. Plans his/her speech around a main idea</p> <p>.10.Avoiding details that distract his/her speech.12. Uses speaking methods and techniques.</p> <p>5. Getting the habit of expressing himself/herself orally.</p> <p>1. Expresses feelings, thoughts, dreams, impressions and experiences verbally.</p>	<p>Aquarium inner circle fifteenth students</p>
LOVE	Third week 4 hours	Eskici	Eskicilik mesleği toplum için gerekli mi yoksa gereksiz mi?	<p>1. Applying the rules of the conversation5.Making sentence according to the rules of Turkish</p> <p>6.Using Turkish word instead of</p>	<p>Aquarium outer circle sixteen students</p>

				<p>words that have been taken from foreign languages and have not yet settled into our language</p> <p>10. Establish cause and effect relationships in conversation</p> <p>12. To speak without falling into repetition</p> <p>3. Making prepared speeches</p> <p>6. By using proverbs, idioms and rhetoric appropriately, to enrich his/her narrative.</p> <p>12. Uses speaking methods and techniques.</p>	<p>Aquarium inner circle ten students</p>
The Atatürk	Fourth week 4 hours	Atatürk'ün Hayatı	Does the information we learned from books by	<p>1. Applying the rules of the conversation5. Making sentence according to the rules of Turkish</p>	<p>Aquarium outer circle twelve students</p>

			<p>reading or the information we learned from our school friends and family make us more successful in our profession?</p>	<p>11. Establish cause and effect relationships in conversation</p> <p>2. Effective use of voice and body language</p> <p>1 He/She adjusts his/her breath while he/she is talking.</p> <p>5. Emphasising, toning and pausing in proper point</p> <p>3. Making prepared speeches</p> <p>12. Uses speaking methods and techniques.</p> <p>4. Evaluating his/her own speaking</p> <p>1. Evaluates his/her speech in terms of content. 2. Evaluates his/her speaking in terms of language and expression.</p>	<p>Aquarium inner circle thirteen students</p>
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				3. Evaluates his/her speech by using voice and body language	
TheAta-türk	Fifth week 2 hours +1. written examination	Ata-türk'ten Anılar Anadolu'nun Sesi	Aquarium 1) Whether the people-nation or the rulers of the state-stateman determine its own future is better	1. Applying the rules of the conversation 4. Speaking with standard Turkish. 7. Speaking fluently at a speed that will not be difficult to perceive 3. Making prepared speeches 12. Uses speaking methods and techniques. 5. Getting the habit of expressing yourself orally. 1. Expresses feelings, thoughts, dreams, impressions and experiences orally.	Aquarium outer circle seventeen students Aquarium inner circle eight students
Community	Sixth week 4	Komşulu	Is our neigh-	1. Applying the rules of the	Aquarium outer

Life	hours	k	<p>bors or our relatives are more im- portant in our daily lives??</p>	<p>conversation 1.Starting to speech with appropriate statements.2. Uses appropriate addressing expressions during conversation. 8.He/She respects the cour-tesy rules when speak. 2. Effective use of voice and body language 5. Emphasising, toning and pausing in proper point.6.Speakin g a voice away from foolishly, imitation and preciosi-ty.7.He/She takes care the harmony of gesture and facial expression with his words.9. He/She sets up eye contact with</p>	<p>circle thirteen students</p> <p>Aquari-um inner circle thirteen students</p>
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				<p>listeners.</p> <p>3. Making prepared speeches</p> <p>12. Uses speaking methods and techniques.</p> <p>4. Evaluating his/her own speaking</p> <p>1. Evaluates his/her speech in terms of content.4. Evaluates his/her speech by using voice and body language</p> <p>5. Getting the habit of expressing himself/herself orally.</p> <p>3.He/She looks for solution his/her problem by talking</p> <p>4.Uses new learned words, concepts, proverbs and idioms.</p>	
Community Life	Seventh week	Dostluğun Değeri	Do we have to sacrifice	1. Applying the rules of the conversation	Aquarium outer circle

				<p>are in accordance with topic.</p> <p>9.It gives clear, adequate and correct answers to the questions asked during the conversation.</p> <p>11.He ends his conversation with the appointed time and thanks.</p> <p>12. Uses speaking methods and techniques.</p> <p>5. Getting the habit of expressing himself/herself orally.</p> <p>2.They ask what they do not understand and they wonder.</p>	
Community Life	<p>Eight week 2 hours +</p> <p>2.Written examination</p>	<p>Erzurum'u Böyle Savunduk</p>	<p>Aquarium 1)Is war always bad, are there situations</p>	<p>1. Applying the rules of the conversation</p> <p>3. Develop an speaking attitude suited for environment.</p> <p>4.Speaking with</p>	<p>Aquarium outer circle seven-teen students</p>

			<p>where war is necessary or good?</p>	<p>standard Turkish.</p> <p>5. Making sentence according to the rules of Turkish</p> <p>7. Speaking fluently at a speed that will not be difficult to perceive</p> <p>10. Establish cause and effect relationships in conversation.</p> <p>11. Establish purpose-result relationship in conversation</p> <p>2. Effective use of voice and body language</p> <p>4. Avoid unnecessary voices while talking.</p> <p>3. Making prepared speeches</p> <p>7. She/He uses visual, auditory materials and different means of communication while</p>	<p>Aquarium inner circle seven students</p>
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				<p>presenting her conversation.</p> <p>12. Uses speaking methods and techniques.</p>	
<p>Com-muniy Life</p>	<p>Nineth week 4 hours</p>	<p>İki Kardeş</p>	<p>If the siblings are united or live individually (separately) live, will they be more successful ?</p>	<p>1. Applying the rules of the conversation</p> <p>3. Develop an speaking attitude suited for environment.</p> <p>4. Speaking with standard Turkish.</p> <p>3. Making prepared speeches</p> <p>12. Uses speaking methods and techniques.</p> <p>5. Getting the habit of expressing himself/herself orally.</p> <p>2. They ask what they do not understand and they wonder.</p> <p>3. He/She looks for solution his/her problem by talking</p>	<p>Aquarium outer circle sixteen students</p> <p>Aquarium inner circle ten students</p>

Personel devel- opment	Tenth week , 4 hours	Pulsuz Dilekçe	Should the parents release their children or not when they raise them?	3. Making prepared speeches 1. Makes re- search about the topic of speech. 2. Prepare the text of the con- versation. 3. Plans his/her speech around a main idea 4. He/She supports main idea with the helpful ideas 9.It gives clear, adequate and correct answers to the questions asked during the conversa- tion. 8. He makes explanations about the topic before the speech. 10.Avoiding details that distract his/her speech 11.He ends his conversation	Aquari- um outer circle fifteen students Aquari- um inner circle twelve students
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				with the ap- pointed time and thanks.	
Personel devel- opment	Eleventh week 4 hours	Kırmızı Pabuçlar	Can people be happy without money, or do they need money to be hap- py?	1 Applying the rules of the conversation 10.Establish cause and effect relationships in conversation 2. Effective use of voice and body language 1.He/She ad- justs his/her breath while he/she is talk- ing.2. Speak with an audible voice.3. He/She pronounces the words correctly. 4.Avoid unnec- essary voices while talking.	Aquari- um outer circle: nine students Aquari- um outer cir- cle:sixtee n stu- dents
Posttest 6 hours					

The Studies Which was made Towards the Control Group

The speech anxiety scale was applied to the students in the pre-test. While the lesson was taught by the aquarium method throughout the study period in the experiment group, the lesson was taught according to the activities given in the course book in the framework of the Turkish Curriculum (2006) in

control group. The lessons were taught according to the 7. grade Turkish Teacher's Guide Book and the activities in the 7th Grade Turkish Student Workbook were also made.

Analysis of Data

In the study, effective speech anxiety scores related to both experimental and control group, which was obtained from pre-test and posttest measures, transferred to computer environment and analyzed with SPSS 20.0 package program.

To determine which statistical techniques is used for data analysis, the normality of the distribution of the variables in the SPSS 20.0 program was examined. For the normality of data distribution, if the group's size is less than 50 "the Shapiro-Wilks Test" is used, but in case of the large "the Kolmogorov-Smirnov test is used. Because the number of students in the research groups (Control: 21, Test: 27) was below this limit, The Shapiro-Wilk test was used. Due to the P value is smaller than .05 in the analysis, the data do not exhibit normal distribution "(Büyüköztürk, 2006: 42). The normality of the data was examined on pre-test data and the data obtained from the scales showed a normal distribution ($p > .05$).

According to this, to determine whether there was a significant change in the scores of the students in the experimental and control groups before and after the application from the "Speech Anxiety Scale", t-test analysis was conducted. While in the analysis of the pre-test data of the Experiment and Control group, "independent samples t-test" was used, in the analysis of the post-test data of the experiment or control group related samples t-test" was used.

Findings

In this section, the pre-post tests' findings related to the speech anxiety of the bilingual students were discussed. To determine the effect of the aquarium method on the Turkish speech anxieties of bilingual 7th grade students, the findings which were obtained from the "Speech Anxiety Scale" applied

to students in the experimental group and the control group at the beginning and end of the study are shown in the following tables.

Table 4. The Findings Related to the Control and Experiment Groups' Pre-test Speech Anxiety

Test	Group	N	Mean	t (46)	p
Pre-test	Experimer	27	56,93	2,560	,061
	Control	21	55,84		

In the table 4, when it was examined the success score mean of the Turkish speech anxiety related to pre-test of the experimental and control groups, it seen that;the score of the experimental group is 56.93 and the score of the control group is 55.84.

When the Turkish speech anxiety averages of the experiment-control group are statistically compared, it is understood that the difference between the averages is not significant ($p > 0,05$; $t = 2,560$). In other words, it can be said that Turkish speech anxiety level of the experiment and control group students are quite similar before experimental applications.

When the intervals of the speech anxiety evaluation are examined, It is seen that the speech anxiety level of experiment-control group is in the range of 53-68 points "intermediate level anxiety.This findings point out that groups started at the level of speech anxiety similar to experimental applications. The findings related to the experimental group pre-post test Turkish speech anxiety is given in Table 5.

Table 5. The findings related to the experimental group pre-post test Turkish speech anxiety

Group	Test	Mean	N	t	p
Experimer	Pre-Test	56,93	27	13,056	,000
	Post-Test	36,46	27		

In the table 5, when it was examined the score of the Turkish speech anxiety related to pre-post test of the experimental

groups, it seen that the average of the speech anxiety was 56.93 in the pre-test, and this mean is 36,46 in the post-test. When the findings of statistical analysis are examined, it is understood that the difference on the behalf of the post test is significant ($p: ,000 < 0,05$; $t: 13,056$).When the level of the speech anxiety were examined, it was found that the experimental group lived "Middle-level anxiety" (56,93) and in the post-test Turkish speech anxiety was decreased significantly "Low level of concern" (36, 46).This finding show that teaching was made by aquarium method decrease the Turkish speech anxiety of the bilingual students significantly.To have a successful speech skill,it is very important that the level of speech anxiety is low or close to low. Indeed, speech anxiety is one of the important factor which by stimulating speech, excitement and stress; cause to ineffective, unsuccessful conversations.Speech activities to be conducted by aquarium method, will have a significant effect on the elimination of students' speech anxiety.The findings related to the control group pre-post test Turkish speech anxiety is given in Table 6.

Table 6. The findings related to the control group pre-post test Turkish speech anxiety

Group	Test	Mean	N	t	p
Control	Pre-Test	55,84	21	1,221	,035
	Post-Test	53,11	21		

In the table 6, it seen that the mean of the Turkish speech anxiety related to pre-test of the control groups is 55,84; in the post-test this mean is 53,11. Numerically, the 3 points difference between the pre test and post test is significant as statistically ($p: ,035 < 0,05$, $t: 1,221$).

Although the anxiety score of the control group decreased slightly in the last test, when the evaluation intervals were examined, it was understood that there was no change between pre-test and post-test in terms of the level of Turkish speech anxiety(Range of 53-68 points "intermediate level anxie-

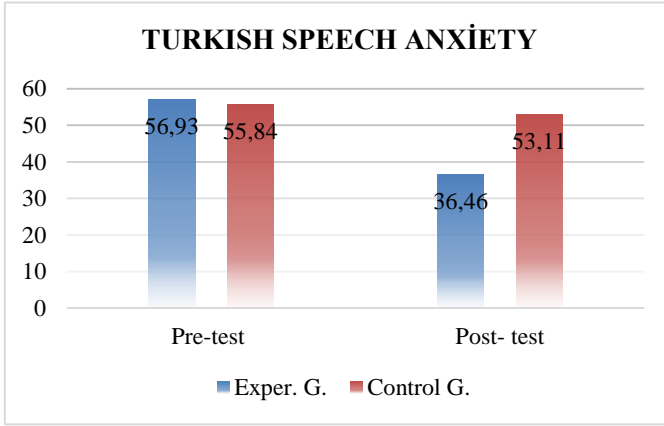
ty").Based on these findings, it can be said that the activities related to speech skills prepared within the framework of the Turkish Curriculum (2006) can not be effective enough to reduce students' speaking anxiety. The post-test comparison findings of the experiment-control group's Turkish speech anxiety are given in the table 7.

Table 7. The post-test findings of the experiment-control group's speech anxiety

Test	Group	N	Mean	t	p
Pro test	Experiment	27	36,46	-10,118	,000
	Control	21	53,11		

When the Table 7 is examined, it is seen that the experiment group's Turkish speech anxiety score is 36,46 and also when anxiety level ranges are examined this score appears to be in the range of "Very low level anxiety (20-36)".When the anxiety level ranges are examined, it is seen that this score is in the range of "intermediate level anxiety (53-68)" as it is in the pre-test. In terms of Turkish speech anxiety level, it is understood that positive results are obtained in favor of the experimental group in which the aquarium method is applied in the post test. When statistical analysis findings are examined, it is seen that significant results are obtained in favor of experimental group ($p: ,000 < 0,05$; $t: -10,118$). These findings show that the students who teached with aquarium method give more successful results than activities given in the Turkish Curriculum (2006) in the decrease of Turkish speech anxiety.In Figure 1, pre-post test findings related to speech anxiety are more evident.

Figure 1. Pre-Test Comparison of the Experiment and Control Group Speech Anxiety



When Figure 1 is examined, it is clearly seen that there is no significant difference between the scores and levels of Turkish speech anxiety in the experiment and control group in the pre-test, and a difference of about 20 points in favor of the experiment group in the post-test. This difference in favor of the experimental group in the post test shows that the aquarium teaching method gives much more successful results than the speech training activities organized in the context of the Turkish Curriculum for minimization of the Turkish speech anxiety of the bilingual students.

This findings is noteworthy that the bilingual secondary school students will be able to obtain very successful results if the Turkish speech training is given by the aquarium method.

Discussion and Conclusions

The reached results related to the effects of aquarium method on the bilingual learners' Turkish speech anxiety are as follows:

1. As a result of the analysis of the data obtained in the pre-test application, the average achievement score of pre-experimental speech anxiety of experiment group students was

determined as 56.93 (moderate anxiety) and control group pre-test Turkish speech anxiety was 55.84 (moderate anxiety).

2. Statistically, there was no significant difference between the experimental and control group achievement scores in the pre-test ($p : ,061 > 0,05$; $t: 2,560$), In the post-test, the experimental group's mean score of anxiety was 36.46 (low level of anxiety), the control group's anxiety score was 53.11 (moderate anxiety). In the post-test, numerical difference of approximately 20 points in favor of the experimental group was found statistically significant ($p: ,000 < 0,05$; $t: -10,118$). In other words, aquarium teaching method gives much more successful results than the speech training activities organized in the context of the Turkish Curriculum for minimization of the Turkish speech anxiety of the bilingual students.

When the literature is examined, it is understood that there are many researches were made on communication skills of students by using active learning techniques. In a meta-analysis study which was carried out by Kardaş and Öztürk (2015), they tried to determine the relationship between the conducted studies which was used active learning techniques in Turkey between 2000-2014 and attitudes of the students in Turkish learning. As a result of the research, 92.16% of studies using active learning techniques have found that students have developed a positive attitude towards active learning techniques (M. v. Kardaş 2015). The results obtained in the meta-analysis study support the results of this study in which the aquarium method is applied. In the research which was conducted by Maden and Durukan (2010) on the station technic which is one of the active learning technic, they have found that station technic provided students with more successful outcomes than the traditional method (Maden S. ve Durukan 2010) Demirörs (2007), Morgil, Yılmaz and Yörük (2002) also found similar results with active learning applications in their researches (Morgil 2002)

In another study, Kardaş (2016) examined the effect of crea-

tive drama one of the active learning applications, on students' speech anxiety. In the research, it has been understood that creative drama is an effective method of decreasing students' speech fears and anxiety (M. Kardaş 2016).

In a study which was conducted by Kalem and Fer (2003), they found that a learning environment created by the active learning model have positive influence on the students in terms of learning, teaching and communication process dimensions (Kalem 2003). In another study which was conducted by Maden (2011), he examined the effect of role cards, one of the active learning techniques, on students' attitudes towards speaking lessons. As a result of research, it has been determined that teaching with role cards gives more successful results than traditional teaching

During the study of bilingual students, moving from the reached results; It was observed that with the aquarium technique students were more active in the lesson, they produced a better understanding of the debate issues, they communicated more easily with each other and with their teacher and they developed the sharing and interaction between the teacher-student and student-student. In this sense, it can be said that the aquarium is an effective method that should be used in the development of other communication skills, especially the development of Turkish speech skills.

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