

## The Effect of Traditional Games on the Language Development of Pre-School Children in Pre-School Education<sup>1</sup>

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### Abstract

The aim of this study is to analyze the effect of Traditional Game Education Program (TGEP) on language development of pre-school children. Dependent and independent variables were determined as the children's language development scores and "traditional game education program", respectively. The study group was determined with "typical case sampling", one of the purposive sampling methods, and it consists of a total of 72 children attending four nursery classes depending on Diyarbakır Eğıl District Directorate of National Education, 36 of whom are experiment group and 36 of whom are control group. Peabody Picture Vocabulary Test (PPVT) prepared by L. Loyd and M. Dunn in the USA was used as data collection tool. While analyzing the data, Independent and Dependent Groups t-Tests were used. It was found at the end of the study that PPVT post-test scores of the children in experiment and control groups were statistically different. Post-test average scores of the children in the experiment group were higher than the ones in the control group. Accordingly, it was determined "Traditional Game Education Program" increased the children's language development in a positive way.

**Keywords:** Early childhood education, Preschool education, Language development, Language activities in pre-school education, Traditional game, Peabody picture vocabulary test.

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<sup>1</sup> This article is derived from the study master's thesis.

### **Contribution of this paper to the literature**

It is thought that traditional games positively affect the language development of preschool children. Traditional games, which are among the factors that affect language development, will contribute to the preschool education literature.

## **1. Introduction**

Language is defined as a means of effective communication to convey emotions, thoughts, events and situations. The fact that the person who is responsible for the child's development plays games with him, talks about everything and chats with him lays the foundation of language development. As from birth, the children play with language by screaming, shouting and spelling, and this improves their language development and communication skills (Ağyar, 2016).

Language develops very rapidly in early childhood. At the stage of language development, before the baby starts to speak, he begins to understand the language. What kind of sounds the children should learn is understood through social interaction. The interaction of the child with his peer groups, and the individuals like his parents who form his environment helps him learn the sounds. The babies beginning to perceive the sounds use their first words until they are one and acquire the basic structures of language until the end of babyhood period. Similar stages are seen for language acquisition as the other development stages and have parallels with these stages (cognitive, motor, etc.). While the children acquire language, they experience similar stages and show the same characteristics (Aram, Fine, & Ziv, 2013; Arslan, 2012).

Language development in early childhood influences other development areas, has a critical importance and also supports academic development areas. Moreover, the language development of the children having a normal development during early childhood supports the child to express his opinions freely, not to have problems while communicating and have a place in his social environment. It is highly important to support the child's language development and make him use it actively. When viewed from this aspect, the children with retardation in terms of language development encounter a lot of problems. In fact, these children also have similar structural characteristics as normal children. However, they could have retardation or pauses in reaching the stages that normal children go through. These could lead them to slow speech development, poor memory, difficulty in learning concepts, in adaptation to social environment and to recent developing situations and in conveying emotions and thoughts freely (Doğan, 1979; Tümkeya, 2012).

There are some factors affecting language development. Learning and maturation, socio-economic status, incentive to speak, gender, family relations, bilingualism, being twinborn, health, intelligence and games could be given as examples. Generally, learning and maturation play an important role in language development. To use a language fluently, it is expected to have the required levels of maturation and learning. According to various studies, it was concluded that language development of the children in a family with a good socio-economic level was better and higher than the ones with a low socio-economic level. It was found that the children who were stimulated and encouraged to speak make more rapid progress than the ones ridiculed. According to some studies, it was suggested that girls use more words and form longer sentences than boys. Considering the support to language development in terms of family relations, it was inferred that the children who live in a caring family, with their families and in an extended family have an advanced level of language development when compared to ones who live in an uncaring family, a nuclear family or in nurseries. Besides, it is asserted that the children who grow up bilingually have delays in speaking. As regards being twinborn, it is seen that twin children lag behind in language development as they understand each other with few words. It is known language development is directly proportional to health and intelligence (Tümkeya, 2012).

Different methods could be used to support and improve the children's language development. Using language precisely and correctly while talking to the children, encouraging them to speak and ask questions and not leaving these questions unanswered, listening to their questions and having conversation patiently, doing activities together with the child (listening to music, watching TV, going for a walk, painting, reading stories, playing games, etc.) could be given as examples to these methods. In addition, observing the environment, doing research about the environment and having discussions at the end with the child and being a role model as an adult to the child could also be cited (Barry, 2006). Playing games together has a great importance among the activities supporting the children in pre-school period in terms of language development. Game, on the other hand, has a basic function in making the child adapt to the world. The child acknowledges and understands the real world by playing games. He acquires the developments in language, concepts, etc. by associating them through games. He could express himself more easily, fit in and make contact with the environment through games. Traditional children's games are one of the game genres which are considered to contribute to language development and one of the activities of playing games. It is known that a few generations ago, the children invented active plays, tongue twisters, counting-out rhymes etc. in accordance with their environment and socio-economic levels. While the children play or invent traditional games, they have opportunity to realize their thoughts freely without any limitations. The effect of these activities carried out without any limitations by the children with such a rich imaginary world on all their development areas, especially on language development, is quite important (Başal, 2017). Pre-school education program and activities done in classrooms should have the quality supporting language development. These activities should have the qualities like comprehension, listening, conversation, asking questions, participation in the activities, helping friends as well as improving creativity and imagination. Among the activities considered to influence language development in pre-school education program at most, could tongue twisters, counting-out rhymes, dramas, pantomimes, finger games, riddles and story completions be given as examples. Besides, education program and activities carried out for pre-school children should ensure the transfer, conservation and continuity of cultural heritage (The Ministry of National Education, 2013).

Education given by means of traditional games contributes to the child's language development, gets him to learn customs and traditions of the society he lives in, transfers almost forgotten traditional games from generation to generation and brings them to light (Başal, 2017; Sağlam, 2016). Therefore, in order to establish a suitable ground to make the children learn language, an education program was prepared based on traditional games,

because “games” is the best method they know. The effect of the prepared “Traditional Game Education Program” on language development was tested by being applied to the children.

## 2. Method

In this part, research model, the implementation environment, the population and sample, the study group, traditional game education program, the role of the researcher, data collection tool, data collection and analysis are introduced.

### 2.1. Research Model

The model of this study prepared to analyse the effect of Traditional Game Education Program on language development levels of pre-school children is quasi-experiment design that is one of the quantitative research methods. In this design, a popular approach to quasi experiment, the experimental group A and the control group B are selected without random assignment. Both groups take a pre-test and post-test. Only experimental group receives the treatment (Creswell, 2009). In Table 1, non-equivalent pre-test-post-test control-group design used in the study is shown with symbols.

**Table-1.** Non-equivalent (Pre-test-post-test) control- group design.

	Pre-Test	Implementation	Post-Test
G <sub>A</sub>	O <sub>1</sub>	X (TGEP)	O <sub>3</sub>
G <sub>B</sub>	O <sub>2</sub>		O <sub>4</sub>

Source: Creswell (2009)

G<sub>A</sub> is experiment group, G<sub>B</sub> is control group, O<sub>1</sub> and O<sub>3</sub> are pre-test-post-test measurements of the experiment group, TGEP is the implementation of traditional game education program, O<sub>2</sub> and O<sub>4</sub> are pre-test-post-test measurements of the control group, X is the independent variable applied to the experiment group (TGEP).

### 2.2. The Implementation Environment

Implementation was carried out in a total of four schools in Eğil district in Diyarbakır, two of which are experiment groups and other two are control groups. Because of the rapid decline in the number of the students attending school (face-to-face) due to pandemic (Covid-19) process, all the schools available in Eğıl district were called and the number of the children attending pre-school education was learned. Then, four schools having the highest attendance of the children and a large garden to play games in were determined. The schools determined as experiment group are Kalkan and Selman Primary Schools; the schools determined as control group Dere Neighborhood Primary School and Çalibulan Primary School.

In pre-school classrooms of the experiment group, 30 activity plans including traditional games as 3 sessions a week for 10 weeks were prepared; however, as the decision was made to suspend face-to-face education because of Covid-19 pandemic, “Traditional Game Education Program” could only be applied for 9 weeks (27 activity plans). Implementations were carried out under the control of the teacher outdoor by paying attention to social distance as 3 sessions a week during activity hours of the children in the experiment group. Any intervention was not made to the activity plan of the children in the control group; these children continued their education throughout the implementation period within the frame of Pre-school Education Program scheduled by The Ministry of National Education.

### 2.3. The Population and Sample

The population of the study consists of 27 nursery classes within the body of 27 primary schools in Eğıl district in Diyarbakır in 2020-2021 school year. While sampling, “typical case sampling” which is one of the purposive sampling methods was used. This sampling method requires gathering information over the sample by determining a typical case among many cases in the population related to the research problem. The important thing here is to choose a usual average typical case (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2013). The sample of the study consists of a total of 4 pre-school education classrooms dependent on the Ministry of National Education in Eğıl district in Diyarbakır in 2020-2021 school year, two of which are experiment groups and other two are control groups. Attention was paid to have an equal distribution in experiment and control groups in the sample group in terms of gender and age.

### 2.4. Problem Sentence

The problem sentence of the study was determined as “Do traditional games in pre-school education affect pre-school children’s language development?”

### 2.5. The Purpose and Sub-purposes of the Problem

The purpose of the study is to search for an answer to the question “Do traditional games in pre-school education affect pre-school children’s language development?” Therefore, answers were looked for the questions below;

1. Do Peabody Picture Vocabulary Test (PPVT) total pre-test average scores of the children participating in Traditional Game Education Program (TGEP) (experiment group) and the ones who did not take part in this program (control group) differ significantly?
2. Do PPVT total pre-test – post-test average scores of the children in the experiment group differ significantly?
3. Do PPVT total pre-test – post-test average scores of the children in the control group differ significantly?
4. Do PPVT total post-test average scores of the children in the experiment and control group differ significantly?

## 2.6. The Study Group

Permission was taken from District Governorship on August 31, 2020 for the study. After taking the required research ethics committee approval from Inonu University ethics committee department on September 17, the headmasters and pre-school teachers in the schools including the control and experiment groups were interviewed and they were informed about the purpose, content and the scheme of the study on September 18. The parents of the children who are going to take part in experiment and control groups were interviewed along with Inonu University Social Sciences Ethics Committee Informed Consent Form on September 21-22, 2020 21 and they were asked to sign the form after explaining the content and purpose of the study and indicating the necessity for their permission. The parents stated that they generally wanted their children participate in such a study.

The pre-school teachers in the schools where the study would be carried out were interviewed previously and an appropriate date for them and the children was determined, and between September 22 and 25, 2020, the children in the experiment and control groups were interviewed by doing pre-test. After pre-tests were finished, information about Traditional Game Education Program was given to the children in the experiment group. As it was required to be more sensitive due to pandemic process, measures were taken and these measures were conveyed to the children by taking their developmental characteristics into account. There were 20 girls and 16 boys in the experiment group and the control group consisted of 19 girls and 17 boys. The youngest among the children in the experiment group of the sample was 3 years and a month years old and the oldest is 5 years and 9 months old. The youngest child in the control group was 3 years and 4 months old and the oldest was 5 years and 11 months old. The ages of the children in the sample group were grouped as 3.3 and below, 3.4 and 4.2, 4.3 and 5.5, and 5.6 and 7.5. The distribution of age groups was shown in the graphic in Figure 1.

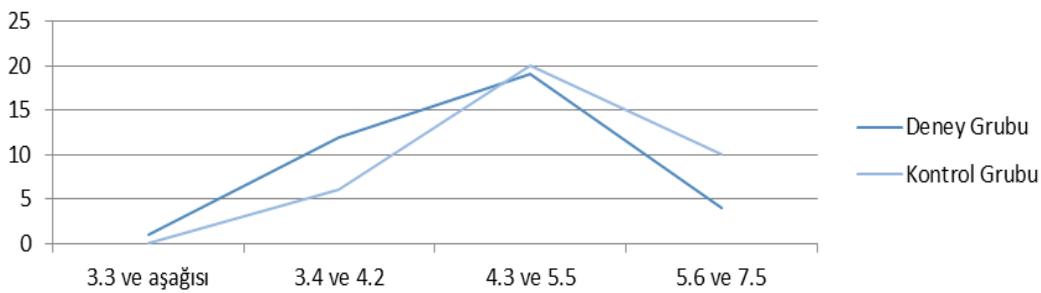


Figure-1. Age group distribution.

Note: child age 3.3.and 5.11

According to the graphic in Figure 1 among the children in the experiment group, one was in the age range of 3.3 and below, 12 were aged between 3.4 and 4.2, 19 were in the age range of 4.3 and 5.5 and 4 of them were in the age range of 5.6 and 7.5. 6, 20 and 10 of the children in the control group were in the age range of 3.4 and 4.2, 4.3 and 5.5, 5.6 and 7.5, respectively. In addition, there are no children aged 3.3 and below in the control group. (While defining age groups, the number before the point is for the year and the one after the point represents the month. For instance, 3.3 means 3 years and 3 months old.)

## 2.7. The Program of Traditional Game Education

Traditional Game Education Program includes a total of 30 sessions. This program consists of traditional children games, drama, pantomime, warm-up plays, relaxing plays, active and main plays. While choosing the games in the program, plays, dramas and pantomimes that would have influence on language development were preferred. During forming the daily flow of the program, warm-up, main and relaxing plays were arranged and daily routine flow and activity plans of Traditional Game Education Program were submitted to such academicians who are experts in their fields as Assoc. Prof. Serpil Pekdogan, Assoc. Prof. Mehmet Saglam, Asst. Prof. Merve Unal and Asst. Prof. Munise Duran, and necessary arrangements were made in accordance with their opinions and suggestions and activity plan was finalized.

## 2.8. Data Collection Tool

Peabody Picture Vocabulary Test was used as data collection tool in the study. This test the origin of which is English and was developed in the USA by Dunn (1959) and was adapted to Turkish by Katz, Önen, Demir, Uzunkaya, and Uludađ (1974) is the test measuring the language development of the children aged between 2 and 12. There is no time limitation for this test applied individually, but the test takes 10 to 15 minutes on average. The implementation of PPVT does not require any preparation or training except practicing in order to recognize test material and test tool in advance. The most important point that the implementer should pay attention is to know how each word is correctly pronounced (Oner, 1997). So, Turkish dictionary of Turkish Language Association could be applied as a source. Occupational groups to implement the test are psychologists, teachers, doctors, speech therapists, social service specialists and advisory teachers.

Testing set consists of 100 test cards, 3 sample cards, a handbook and an individual registration form. The pictures are sorted from the easiest to the most difficult one. There are such pictures as nature, animals or objects on the cards in PPVT. For the scoring of PPVT, first the child's chronological age is calculated as year and month. If the days of the child's chronological age exceed 15, it is added to the month; when the months are 12, it is added to the year. Each correctly given answer is one point. During the implementation of PPVT, when 6 of 8 successive questions are wrong, the test is finished. The raw score is equal to the number of correct answers. The words answered after the test is over are accepted wrong. The score is calculated by counting the wrong words among the ones in the test and subtracting it from the number of the words at the end of the test. The lowest score is 0 and the highest is accepted as 100 (Oner, 1997).

At the stage of developing the main form of PPVT, words were chosen from Webster New Collegiate Dictionary and the words known by the most of the children in each age group were sorted from the easiest to the most difficult and included in the test. A and B forms of the test were applied to 4012 children aged between 2-6

and 0-18. The reliability coefficients of these forms were found to be between .64 and .84. Standard error of the measurement calculated on an individual basis for each age group was presented as 6.00-8.61 intelligence quotient score. Criterion validity of PPVT was tested by Stanford - Binet test and Wechsler Intelligence Scale for Children. The correlative relationship between PPVT and Stanford-Binet Test was .82 and .86; the correlative relationship between PPVT and Wechsler Intelligence Scale for Children was found to be between .41 and .74 (Oner, 1997).

2.9. Data Collection and Analysis

The data were collected with Peabody Picture Vocabulary Test and form. For implementation, “Traditional Game Education Program” was developed and before implementing the program, pre-test was applied through PPVT form to the children in the experiment and control groups. After the implementation of Traditional Game Education Program, these children were applied post-tests; and data collection process was completed by thanking the pre-school teachers participating the study, headmasters of the schools in which the implementations were done, the children in the experiment and control groups and their parents.

To analyse the data obtained from the study, SPSS (Statistical Package for Social Sciences) packaged software was used. Before data analysis, the normality in the distribution of the data was tested. The values related to the normality of distribution is presented in Table 2.

Table-2. Descriptive Statistics.

PPVT	Posttest	Pre Test
N	72	72
Average	54,7917	36,7361
Median	52,5000	34,5000
Mode	30,00 <sup>a</sup>	26,00
Standard Deviation	19,32811	13,53659
Variance	373,576	183,239
Skewness	,267*	,252*
Kurtosis	-1,244**	-,971**
Range	68,00	53,00
Minimum	21,00	12,00
Maximum	89,00	65,00
Total	3945,00	2645,00

Note: Skewness Kurtosis, between -2,+2.

When descriptive statistics in Table 2 were reviewed, while skewness was (.267) and kurtosis was (-1.244) within the scope of post-test done, it was seen that skewness (.252) and kurtosis (-.971) values were within the boundaries ensuring normal distribution within the context of pre-test. According to George and Mallery (2010) for normality assumption, the values of variables, skewness and kurtosis, should be between -2 and +2. Accordingly, it was accepted that the data were normally distributed. In addition, the result of KR-20 reliability analysis carried out to measure the internal consistency for true-false questions was .98 for post-test and .96 for pre-test. In this context, it could be said that the test used in the study is highly reliable.

The statistical processes below were applied to test the problem and sub-problems in the study in line with these results;

- For the first sub-problem; “Independent Groups t-Test” that is one of the tests presenting normal distribution was used so as to test whether or not pre-test average scores of the children in the experiment and control groups differ significantly.
- For the second sub-problem; “Dependent Groups t-Test” was used in order to test whether PPVT total pre-test – post-test average scores of the children in the experiment group differ significantly.
- For the third sub-problem; “Dependent Groups t-Test” was used to test whether or not PPVT total pre-test – post-test average scores of the children in the control group differ significantly.
- For the fourth sub-problem; “Independent Groups t-Test” was used in order to test whether PPVT total post-test average scores of the children in the experiment and control groups differ significantly.

3. Findings and Interpretation

3.1. Findings and Interpretation Regarding the First Sub-Problem

The first sub-problem of the study was defined as “Do Peabody Picture Vocabulary Test (PPVT) total pre-test average scores of the children participating in Traditional Game Education Program (TGEP) (experiment group) and the ones who did not take part in this program (control group) differ significantly?” In accordance with this purpose, Independent Groups t-Test was carried out. The results are given in Table 3.

Table-3. t-Test results of the children’s PPVT pre-test scores in relation to the variable of being in the experiment or control group.

	Group	N	X	SS	sd	t	p	Eta-square(η <sup>2</sup> )
PPVT	Experiment	36	40.16	13.50	70	2.208	.030*	.01
	Control	36	33.30	12.84				

Note:\*p<0.05

Before implementing “Traditional Game Education Program” in the experiment group in this study, it was analysed on what level there is a difference between the experiment and control group. Regarding the values in Table 3, it is seen that there is a statistically significant difference between the children’s PPVT scores according to the variance of their being in the experiment or control group (t=2.208, p<.05). It is clear that average scores of the children in the experiment group (X=40.16) were higher than the average scores of the ones in the control group (X=33.30). The difference between the scores of the experiment and control group was found to be 6.86 and the

effect size calculated at the end of the test ( $\eta^2 = .01$ ) showed there is a small difference; in other words, although there was a statistically significant difference at the beginning of the study, average scores of the experiment and control groups were found to be close. In this context, it was concluded that there is not a significant score difference between the scores of the children in the experiment and control groups.

### 3.2. Findings and Interpretation Regarding the Second Sub-problem

The second sub-problem of the study was defined as “Do PPVT total pre-test – post-test average scores of the children in the experiment group differ significantly?” In accordance with this purpose, Dependent Groups t-Test was carried out. The results are given in Table 4.

**Table-4.** Dependent Group t-Test results of the children in the experiment group in relation to their PPVT pre-test and post-test scores.

	Measurement	N	$\bar{X}$	SS	sd	t	p
Experiment Group	Pretest	36	40.17	13.51	35	-16.547	.000*
	Posttest	36	68.81	14.84			

Note: \*p<0.05

As regards the values in Table 4, it is seen that there is a statistically significant difference between PPVT pre-test and post-test scores of the children in the experiment group ( $t=-16.547$ ;  $p<.05$ ). While PPVT pre-test scores of these children were 40.17, it became 68.81 at the end of the experiment according to the results. The difference between pre-test and post-test PPVT average scores of these children was found to be 28.64. The effect of “Traditional Game Education Program” on language development could be the reason why the difference in scores is high and significant. The qualities of the activities included in the program could be the reason why the education program developed was so effective. These activities consist of tongue twisters, counting-out rhymes, pantomimes and finger games as well as traditional games. It is known that pre-school children like harmonious and rhythmic words. The harmonious tongue twisters and counting-out rhymes support pre-school children’s language, cognitive and social development. While telling these rhythmic tongue twisters and counting-out rhymes, they acquire awareness of words and sounds. The fact that these rhymed words also have amusing elements could be supportive as an enjoyable language activity well-accepted by the children (Akbayır & Sahin, 2005; Rolton, 2002; Roskos, Tabors, & Lenhart, 2009). Finger games can be described as the movement of the body in harmony with the rhythmic words (Eliason & Jenkins, 2003) and drama could be defined as supportive for all development areas while learning through experience, gaining awareness and learning while playing games (Ozyürek, 2013). The children, through finger games, recognize the rhymes at the end of the words/sentences and thus they could keep in mind or remember the words more easily. The children, in dramas, animate while pretending (Eliason & Jenkins, 2003; Ozyürek, 2013), use new words and try to keep in mind what they should say while pretending. Pantomime is a way of expression of opinions without sentences or words. In pantomime, an event, a story, a situation, etc. is animated nonverbally. The child perceives what is conveyed by the narrator, interprets and presents it Omeroğlu (1992). Based on these explanations, it could be mentioned that tongue twisters, counting-out rhymes, pantomimes, finger games and dramas included in traditional games contribute to language development. In this regard, these activities were given place in traditional game education program and it was observed the children were supported in terms of language development while having fun and a good time.

### 3.3. Findings and Interpretation regarding the Third Sub-problem

The third sub-problem of the study was defined as “Do Peabody Picture Vocabulary Test (PPVT) total pre-test – post-test average scores of the children in the control group differ significantly?” In accordance with this purpose, Dependent Group t-Test was carried out. The results are given in Table 5.

**Table-5.** Dependent Group t-Test results of the children in the control group in relation to their PPVT pre-test and post-test scores.

	Measurement	N	$\bar{X}$	SS	sd	t	p
Control Group	Pre-test	36	33.31	12.85	35	-6.783	.000*
	Post-test	36	40.78	11.56			

Note:\*p<0.05

According to the values in Table 5, it is seen that there is a significant difference between PPVT pre-test and post-test scores of the children in the control group ( $t=-6.783$ ;  $p<.05$ ). Regarding the results, while PPVT pre-test scores of these children were 33.31, this turned out to be 40.78 after the experiment. It was concluded the difference between PPVT pre-test and post-test average scores of these children was 7.47. Although there is a significant difference, this is a slight difference in scores. According to analysis result, the fact that while the experiment group was applied Traditional Game Education Program, any interventions were not made to the control group and the children in this group continued their education throughout the term within the frame of Pre-school Education Program scheduled by The Ministry of National Education could be the reason of such a significant difference. Pre-school Education Program is a developmental program since it aims at supporting the children’s all development areas (MEB, 2013). In this context, it is possible to state that the education the children get contributes to their language development.

### 3.4. Findings and Interpretation Regarding the Fourth Sub-problem

The fourth sub-problem of the study was defined as “Do PPVT total post-test average scores of the children in the experiment and control group differ significantly?” In accordance with this purpose, Independent Group t-Test was carried out. The results are given in Table 6.

**Table-6.** t-Test results of the children's PPVT post-test scores in relation to the variable of being in the experiment or control group.

	Group	N	$\bar{X}$	SS	sd	t	p
PPVT	Experiment	36	68.81	14.84	66.03	8.940	.000*
	Control	36	40.78	11.56			

Note:\* $p < 0.05$ .

When the values in Table 6 were analysed, it is seen that there is a statistically significant difference between PPVT post-test scores of the children according to the variance of their being in the experiment or control group ( $t=2.208$ ,  $p < .05$ ). It was found that average scores of the children in the experiment group ( $\bar{X}=68.81$ ) were higher than the average scores of the ones in the control group ( $\bar{X}=40.78$ ). When the table above is examined, it is concluded that there is a score difference of 28.03 between post-test average scores of the experiment and control group in Peabody Picture Vocabulary Test. Considering this result, the effect of 9-week Traditional Game Education Program on language development is obvious. Even if the education the children in the control group get contributes to their language development, the contribution of traditional game education program to language development is greater. It is thought that, the existence of such traditional games as tongue twisters, finger games and counting-out rhymes increased the linguistic skills of the children in the experiment group much more when compared to the control group though the control group includes all kinds of activities. In this context, while developing daily educational flow, the acquisitions should be realized by being planned as traditional game activities. The studies in the literature were analysed and the positive effects of games on language development were presented by the researchers. Bergen (2002) compiled the studies analysing the effect of games played mimetically on cognitive, social and academic development and concluded that these games of imitation support the children's language development, mental development and academic success. Kaçar (2016) examined the effect of the games preferably played by the 5 or 6-year-old children having normal development during pre-school period on problem solving abilities and language development and stated that the kind of the games played is effective on problem solving and language development. Lim (1994) presented the relationship between games and language patterns in his study he carried out with 56 Singaporean pre-school students. Bluiett (2009) reviewed the effect of sociodramatic games played by 21 pre-school children who are 43-73 months old on language development; Ahioğlu (1999) examined the influence of symbolic games on language acquisition and presented the effect of games on language development. As a result of this study, it is clear that there is an effect of traditional games on language development according to post-test data.

## 4. Results and Suggestions

### 4.1. Results

In this part, the results regarding the first, second, third and fourth problem are included.

The results regarding the first problem; it is seen that the scores the children got from PPVT differ according to the variable of being in the experiment or control group. When average scores are reviewed, average scores of the children in the experiment group ( $\bar{X}=40.16$ ) are higher than the scores of the ones in the control group ( $\bar{X}=33.30$ ).

The results with regard to the second problem; it is seen that PPVT pre-test and post-test scores of the children in the experiment group differ significantly. According to the results, while PPVT pre-test scores of these children were 40.17, this value turned out to be 68.81 after the experiment.

The results related to the third problem; it is seen that PPVT pre-test and post-test scores of the children in the control group differ significantly. According to the results, while PPVT pre-test scores of these children were 33.31, this value became 40.78 after the experiment.

The results in regard to the fourth problem; there was a statistically significant difference among total post-test average scores of the children in the experiment or control group. When average scores were examined, it was found out that average scores of the children in the experiment group ( $\bar{X}=68.81$ ) were higher than the scores of the ones in the control group ( $\bar{X}=40.78$ ).

### 4.2. Suggestions

In this study that analysed the effect of traditional game education program on the children's language development, it was determined that game method had a positive effect on the children both during and at the end of the implementation. It was observed that the children participated the implementations actively and voluntarily during education process and they also had fun during the implementations. It is considered this method by which they both learn and have fun could be used in any kinds of activities because the children watch for an opportunity to play games under all conditions. In this context, the power of games in pre-school education should be utilized.

#### 4.2. a. Suggestions for Educationists

Traditional Game Education Program (TGEP) was implemented to pre-school period by the educationist in this study. The educationists could apply the program to classes on different levels (primary school, secondary school, etc.) by taking the program's effect on language development into account.

The effect traditional games on language development was examined in this study. The educationist could support different development areas by using traditional games.

The supportive activities for language development in traditional game education program such as pantomime, nursery rhymes, counting-out rhymes, dramas, finger games, warm-up – active – relaxing plays were included in this study. The educationist could give support to language development with different activities by enriching the existing ones.

The implementation takes 9 weeks. The educationist could apply traditional game education program throughout the whole school year.

#### 4.2. b. Suggestions for Researchers

The implementation was carried out with pre-school children; therefore, the researcher could repeat his study with a larger group of different age groups or ranges in further studies.

The implementation period of this study was 9 weeks. The researcher could extend this period and measure its effect on language development in further studies.

The researcher could get permission from the parents to record videos or take photos during the implementation in further studies and could take observation notes with the support of an expert.

In this study, implementation was carried out with a total of 72 students, 36 of whom were experiment and 36 were control group. It is suggested to realize the further studies with the participation of many more students.

This study was carried out without equalizing the PPVT average scores of experiment and control groups. It is recommended to study with groups having equalized PPVT average scores when such a study is conducted in the future.

This is a quantitative study and in further studies it could be carried out as a mixed study (qualitative and quantitative).

Traditional Game Education Program in pre-school education was developed and implemented in this study. Further studies could analyse the effect of different methods on language development and/or the effect of Traditional Game Education Program on other development areas could be measured.

#### 4.2. c. Suggestions for Families

Regarding the results of the study, the families could be ensured to get seminars/education about traditional games when the effect of 9-week traditional games education given on language development was taken into account.

Considering the effect of traditional games, they could be also used in daily life so as to contribute to the children's development.

The implementation was carried out with pre-school children. Parents could use traditional games to support the development of their children who are in different age groups.

In this study, the effect of traditional games on language development was analysed. Parents could benefit from the effect of traditional games on the children's other development areas.

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