The Efficiency of the Song Repertoire on the Musical Development Level of Pre-School Children Aged Six Years Old¹

DOI NO:023448880048613

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Geliş Tarihi: 21.01.2017 Kabul Tarihi: 07.12.2017

Abstract

In this research it was aimed to form a nursery rhymes repertoire for preschool children, which is appropriate for the necessities of the Early Childhood Education Program and to help pre-school music teachers carry out more efficient and productive work. Towards this aim, a song repertoire was formed by the researcher, experimental and control groups were specified and work was carried out with the experimental group for 12 weeks. A pre-test and a final test were applied to the experimental and control groups before and after practice with the use of a "musical skills measuring device" prepared by the researcher and statistical analyzed of the obtained data were performed.

According to the data gained from the research results, it was stated that the activities performed in music education created a positive effect on the musical development of 6 year old children.

Key Words: Preschool education, music education, song repertoire

Okul Öncesi Altı Yaş Çocukları İçin Oluşturulan Şarkı Dağarcığının Müziksel Gelişim Düzeylerine Etkisi Özet

Bu araştırmada ana sınıfı öğrencileri için Okul Öncesi Programı gereklerine uygun çocuk şarkıları dağarcığı oluşturmak, okul öncesi düzeyde müzik eğitimi veren öğretmenlerin daha etkili ve verimli çalışmalar yapmasına katkı sağlamak amaçlanmıştır. Bu amaç doğrultusunda, araştırmacı tarafından şarkı dağarcığı oluşturulmuş, deney ve kontrol grupları belirlenerek deney grubu ile 12 hafta çalışılmıştır. Uygulama öncesi ve sonrasında deney ve kontrol grubuna araştırmacı tarafından hazırlanan "müziksel beceri ölçme aracı" kullanılarak ön test ve son test uygulaması yapılmış ve elde edilen verilerin istatistiksel çözümlemeleri yapılmıştır.

¹ Bu çalışma, "Okul Öncesi Altı Yaş Çocukları İçin Oluşturulan Şarkı Dağarcığının Müziksel Gelişim Düzeylerine Etkisi" isimli doktora tezinden yararlanılarak yazılmış, "7th World Conference on Educational Sciences" konferansında sunulmuştur.

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Araştırma sonuçlarından elde edilen verilere göre, araştırmacının hazırlayıp uyguladığı şarkı dağarcığı ile gerçekleştirilen müzik eğitimi etkinliklerinin; 6 yaş grubu çocukların müziksel gelişim düzeyleri üzerinde olumlu etki yarattığı görülmüştür.

Anahtar Kelimeler: Okul öncesi eğitim, müzik eğitimi, şarkı dağarcığı

1. Introduction

There are a number of proven benefits of music education during preschool period. Music education in that period when cognitive, affective and psychomotor development of the child is prioritised is realized by means of basics such as rhythm and harmony. By this way, both the development of the musical abilities of the child is provided and the environment appropriate for the other early period learning is prepared by supporting the child's social, emotive, physical and mental development (Özeke, 2017: 1036; Erdal, 2012: 54).

Studies conducted indicate that children's musical experiences improve their literacy and vocabulary knowledge. In addition, it is suggested that musical activities develop children's motor skills, improve the interaction between each other, help revealing the depressed energy and contribute to expressing themselves and gaining musical listening skill (Music Council of Australia, 2010: 3). Besides, it is observed that language development of the children involved in music activities is affected in a positive way and their sensitivity to rhythm increases (Şendurur and Akgül Barış, 2002: 167; Dikici Sığırtmaç, 2005: 16-17; Alpöge, 2006: 11).

The instruments that the child uses in music activities and his efforts to use his body with music contribute a lot to his psychomotor development and influence his feelings of success and confidence positively (Arslan, 2005: 17; MEGEP, 2007: 5).

The most important and basic purpose of music education, regardless of its kind and level, is to furnish human with the correct behaviors related to his natural instrument, his voice. The use and protection of human voice by obtaining the correct habits can only be achieved by education beginning at an early age. Thus, singing activities during preschool period constitute an important part of music education (Şen, 2006: 340; Irwin, 2008; Töreyin, 2008: 130).

It is of great importance that the child's singing skills, musical skills and voice be developed properly during the early childhood period because, if the child's singing skill doesn't develop properly during the early childhood period, his tonal-modal thinking skill cannot develop properly (Levinowitz, 1998: 5).

The child's age and the features and the anatomy of his voice type should be taken into consideration in this period. Moreover, teaching behaviors related to fair and effective vocalization of songs with musical accuracy, intonation, articulation and constituting a repertory in accordance with the age and sound characteristics of the child's age must be aimed (Töreyin, 2008: 106). Besides, the songs should be comprised of simple rhythm patterns, short sentences and repeatable sentences, the words used in the songs should be suitable to children's vocabulary knowledge, a song repertory, in which the child's language and musical improvement is in the foreground, whose prosody is smooth and which is comprised of his sound boundaries, should be used. At the same time, the songs in repertory should include curricular attainments and daily life, topics such as home, school, special occasions, animals, vehicles, and songs rhythmical elements should be suitable to children's kinesis.

The development process in which musical responses in infancy gradually get more complicated and turn into conscious responses reveals the presence of certain musical developmental periods, too(Özmenteş and Adızel, 2017: 426; Özdemir and Yıldız, 2010: 80). Paananen (2006) classifies musical developmental periods into three categories as Affective Motor Period (4-18 months), Association Period (1,5-5 months) and Differential Period (ages 5-11). In this context, it has been determined that the children of the age group of 6 in the differential period, within the musical development of this period, have a strong feeling of rhythm, their competence of adjusting the tone develops and their volume sonores make a progress line towards high and deep voices (Paananen, 2006: 35; Başer, 2004: 4–5).

For that reason; it is considered that singing activities, contributing to the development of many skills of the child, such as rhytm, pace, tempo, tonal feeling, producing qualified voice and singing together, have an important role especially in the musical development of the child of age 6 in the differential period (Irwin, 2008).

1.1.Purpose

In this study, the effect of repertory prepared by the researcher on the musical development levels of preschool education children at the age of six has been scrutinized, a repertory in accordance with the requirements of preschool education has been constituted, and it is aimed to contribute to enabling preschool music teachers to make more effective and productive studies.

1.2. Importance

The study is thought to be important in terms of the data that will be acquired and suggestions that will be made regarding the competence of instructors and the relevance of child songs in music education during preschool education.

1.3. Limitations

The research is limited to one experimental and one control group, music activities prepared by the repertory constituted by the researcher, and music activities applied by the preschool teacher.

2. Method

2.1. Research Model

A "pretest-posttest control group test model" has been used. There are two randomly assigned groups in pretest-posttest control group test model. Both groups are subject to measurements before and after the experiment (Karasar, 2008: 87).

During the application phase, music education applications were performed by using the prepared repertory by the researcher once a week for twelve week; during the posttest phase, after the 12 week application phase, necessary observations were made by the specialists by using the same evaluation instrument used in the pretest.

2.1.1. Preparation to experimental process

For the use of music education during preschool period which has become the topic of the study, specialists' opinions were taken, and the instrument that would be used in during the pretest-posttest phase of the study with respect to specified aims and attainments was prepared. The repertory which will be used in the application phase of the study was prepared according to specialists' views, the concepts and special occasions stated in the curriculum sample, by taking Turkish language features and prosody where children's language and musical developments are of primary importance within the boundaries of targeted age group into consideration. The activities taking part in music education such as breathing and relaxation trainings, language and speaking practices, emulation trainings, hearing practices which are parts of voice training were chosen by taking children's developmental features into account according to the prepared repertory. Before the application phase, a pretest was applied to the sample group, and the researcher and a field specialist filled out the forms by making necessary evaluations.

2.1.2. Application

During the application process, educational activities planned in the preparation phase were applied. Activities were maximum 35 minutes long in accordance with the 30-35 minutes of music activity time, as stated in preschool education curriculum, for 6 year old preschool children. In that process, studies of distinguishing piercing, low, high and deep voices,

studies of listening to music, breathing games and imitation studies, studies of body comfort and softening and rhythm studies in the form of one – word, two – word, three – word and imitation, in accordance with the readiness levels of the children, have been gradually performed. In addition, considering the readiness levels of the children again, ear – training studies with single, two and three voices have been performed. Along with that, in the process of song teaching, studies towards the aim of children's being able to sing well and impressively, with intonation, articulation and paying attention to nuances, in musical accuracy, have been performed. In that process, the pre – school teacher of the control group has continued to perform musical activities and the control group has never been interfered. When the experimental phase of the study was over, the researcher and a field specialist made the necessary assessments in the posttest phase again with the evaluation instrument.

2.2. Research Population and Sample

Research population is 6-year-old children attending public schools located in Bursa and administered by the Ministry of Education in 2011-2012 educational year. One of two nursery classes taking part in the study at this age group was experimental group and the other was the control group.

2.3. The Assessment and Evaluation Instrument of Musical Skill

The assessment and evaluation instrument of musical skill was prepared by the researcher so as to determine the children's music education skills before and after the education process and five point Likert scale was used. Items in the evaluation instruments were given to 3 faculty members in the department of Music Education separately, after the items which required correction and elimination were reviewed, the instrument was made ready to be used. The reliability coefficient of Musical Skill Evaluation Instrument was appointed as .70. this coefficient indicates that the instrument is reliable (Büyüköztürk, 2007: 171).

2.4. Data Collection

The data collection in the research consists of three phases; a pretest applied to the sample group made up of 6 year old preschool children, the application of the education process of the research and the application of the posttest.

Intraclass Correlation Coefficient was used in order to determine the consistency of the researcher's and field specialist's evaluation of the assessment instrument. Intraclass Correlation Coefficient was appointed as .70 as a result of the Intraclass Correlation Coefficient test conducted to find out the consistency of researcher's and field specialist's grading before and after the experiment to each other. According to the results, grades that the

researcher and the field specialist gave to the assessment instrument were consistent.

2.5. Data Analysis

SPSS 13.0 (Statistical Package For Social Sciences) was used for the statistical analysis of sub-problems for which answers are sought within the scope of the purpose and main problem of the research. Significance level was chosen as 0.05 for the statistical significance.

In the assessments made to determine the effect of the prepared repertory on children's musical development levels, variation points between pretest and posttest were obtained for experimental and control groups, and the analysis of variation points was made by t-test.

3. Findings

In this section, findings related to whether music education activities made by the prepared repertory were effective on the child's musical development were included by depending on pretest and posttest findings related to children's, both in experimental group and control group, musical development levels.

3.1. Findings Related to Pretest Point Average of Experimental Group Which Took Part in The Music Education Activities Made by The Prepared Repertory and Control Group Which Didn't Participate in Them

In table 3.1.1, findings, related to whether there is a meaningful difference in musical development levels of experimental and control groups in terms of their musical skill assessment instrument pretest points, were given. The difference between groups' musical skill assessment instrument pretest point averages was compared with t-test for independent samples.

Table 3.1.1: T-test Results of Experimental and Control Groups Musical Skill Pretest Points

		N	\overline{X}	S	sd	t	p
Observer A	Experimental Group Pretest	23	1,25	0,16		-1.17	.253
	Control Group Pretest	21	1,27	0,15	20	-1.1/	
Observer B	Experimental Group Pretest	23	1,26	0,18	20	55	.586
	Control Group Pretest	21	1,27	0,17			

p<.05

As seen in Table 3.1.1, there is a slight difference between experimental and control groups' musical skill assessment instrument pretest points. In order to test the meaningfulness of this difference, experimental and control groups' musical skill assessment instrument pretest points averages were tested with t-test, and it was seen that t-score was not meaningful at .05 level. This finding can be seen as an indication of that the children in experimental and control groups are educated under similar circumstances.

3.2. Findings Related to The Comparison of The Averages of Experimental Group Musical Skill Assessment Instrument Pretest and Posttest Points

In table 3.2.1, the meaningfulness of the difference between the pretest and posttest averages of the experimental group taking part in the music education activities with the prepared repertory was searched with t-test for independent samples.

Table 3.2.1: T-test Results of Experimental Group Musical Skill Pretest and Posttest Average Points

		N	\overline{X}	S	sd	t	p
Observer A	Experimental Group Pretest	23	1,24	0,16	22	-43,27	.000
	Experimental Group Posttest	23	4,52	0,32			
Observer B	Experimental Group Pretest	23	1,25	0,18	22	-41.84	000
	Experimental Group Posttest	23	4,58	0,32		-41,04	.000

p < .05

In table 3.2.1, the average of pretest and posttest points of the experiment group can be seen. There is a meaningful difference after the application in terms of posttest averages. This finding shows that music education activities made by the prepared repertory have a positive effect on the musical development levels of experiment group children. When the pretest and the posttest averages are compared in order to determine whether the difference between musical development levels of the children in the experimental group before and after music education activities, it is seen that t-score is meaningful at .05 level.

Besides, at the end of the music education activities made by the prepared repertory, the increase observed in the musical development levels of the children in experimental group indicates that music education

activities practiced with a music teacher have a positive effect on the musical development of children.

3.3. Findings Related to The Comparison of The Averages of Control Group Musical Skill Assessment İnstrument Pretest and Posttest Points

In table 3.3.1, the music education activities prepared by the nursery school teachers and the pretest point average of control group subjected to music education were studied with t-test for independent samples.

Table 3.3.1: T-test Results of Control Group Musical Skill Pretest and Posttest Average Points

		N	\overline{X}	S	sd	t	p
Observer A	Control Group Pretest	21	1,27	0,15	20	.12	.904
	Control Group Posttest	21	1,27	0,12		.12	
Observer B	Control Group Pretest	21	1,27	0,17	20	40	.627
	Control Group Posttest	21	1,25	0,14		.49	

p < .05

As seen in Table 3.3.1, the pretest point average of control group's musical skill assessment instrument was tested with t-test and it was seen that t-score was not meaningful at .05 level.

With the purpose of determining the musical development skills of the children in the control group who had music education activities with a preschool teacher for 12 weeks, this group's pretest and posttest averages were studied with t-test for independent samples and this was shown in Table 3.3.1. It can be seen that there is not a significant difference between the control group's musical skill assessment instrument pretest and posttest point averages.

With the purpose of determining whether there is a meaningful difference between musical development levels od the children in the control group at the end of the 12 week period, when the pretest and posttest averages were compared, it was seen that t-score was not meaningful at .05 level.

3.4. Findings Related to Posttest Point Average of Experimental Group Which Took Part in The Music Education Activities Made by The Prepared Repertory and Control Group Which Didn't Participate in Them

In table 3.4.1, in order to study the difference between the posttest point averages odd experimental and control groups, point averages of the groups were given by comparing with t-test for independent samples.

Table 3.4.1: T-test results of Experimental and Control Group Musical Skill Posttest Average Points

		N	\overline{X}	S	Sd	t	p
Observer A	Experimental Group Posttest	23	4,51	0,32	20	40,09	.000
	Control Group Posttest	21	1,27	0,12			
Observer B	Experimental Group Posttest	23	4,56	0,32	20	40,63	.000
	Control Group Posttest	21	1,25	0,14			

p < .05

When table 3.4.1 is studied, it can be seen that there is a positive difference between the experimental and control groups' posttest point averages for the experimental group. The experimental and control groups were tested with a musical skill assessment instrument to test the meaningfulness of this difference, and it was seen that t-score was meaningful at .05 level.

According to the findings, music education activities with the prepared repertory have some positive effects on the musical development levels of the children at the age of six. According to this, it can be seen that the children in the experimental group improved more than the children in the control group who were educated without the prepared curriculum. It can be thought that, in addition to its positive effects on children's musical development, it may also contribute to the children's language field, social and emotional field and psychomotor field, too. Moreover, it may also be thought that children taking part in the prepared musical education curriculum, compared to the ones in the control group, may be more ready to elementary school and may affect their success positively there.

4. Result and Recommendations

As a result of the musical education activities with the prepared repertory;

- It was seen that sound recognition ability of the children in the experimental group improved, whereas there was no change in the control group children's ability.
- It was found out that the experimental group children's recognition ability of sonorous and loudness of musical sounds that they

listened to improved, whereas there was no change in the control group children's ability.

- It was seen that the children in the experimental group took part in the music listening studies, and their inhaling-breath holding-exhaling, emulation, body relaxation behaviors changed positively, whereas there was no change in the control group children's behaviors.
- It was observed that the children in the experimental group showed a great development in making one-word, two-word, three-word and emulation rhythms, while the children in the control group weren't able to fulfill these tasks.
- It was found out that speaking and rhythm practices of the children in the experimental group improved a lot, while the children in the control group couldn't do these practices.
- It was seen that the children in the experimental group generally improved their singing skills in accordance with singing rules. According to this, the behaviors of the bearing of the body while singing, inhaling and exhaling, sound production, singing the lyrics accurately, singing the song properly with low and high voice, singing the melody of the song properly improved significantly. It was observed that the children in the control group couldn't develop these behaviors.
- It was observed that the children in the experimental group developed their mono and duo sound hearing skills and showed some positive changes in three sound hearing skills; on the other hand, the children in the control group couldn't do these practices.
- The effect of music education activities applied to nursery school students with the prepared repertory on children's musical development levels was statistically found out; t-test value of the posttest averages of the experimental and control groups' musical skill assessment instrument was found meaningful at .05 level. According to this, the repertory prepared by the researcher and the music education activities with the experimental group have positive effects on children's body bearing, inhaling-breath holding-exhaling, accurate sound protection, understanding the tune with the correct sounds and in time, developing appropriate behaviors for the meanings of lyrics, singing the song with proper articulation at a constant speed etc.

In the light of the information gathered as the result of the research, following recommendations are made:

• The applications regarding voice training during preschool period should be considered as a process. In order for successful voice training, the education should be conducted professionals. Teachers

should be furnished with the sufficient knowledge for voice training during the preschool period. They should also be able to use their voices accurately and show the basic skills of good singing. They should also have competence in voice training. This situation is parallel to previous studies. Özal Göncü (2009), in his study, has compared the attitude and the sufficiency of the pre – school teachers working at pre – school education institutions with music teachers, and following the research, has determined that pre – school teachers are not sufficient in musical studies in view of the deficiencies in their musical knowledge; as for Eren and Sağlam (2009), they have determined the need for the preschool teachers to get informed about the methods of music education.

- It is important that, in the music education of the children who are the future of the societies, educational music samples which are suitable for their voice features, has a flawless prosody, and whose lyrics will contribute to their language development should be included as much as possible. Kaptan Akkurt (2007), in his study, has stated that song teaching is an effective way while teaching words to the children; as for Özeren (2006), he has mentioned the significance of musical pieces created for the children in terms of social musical consciousness and language development and he has stated that qualified musical pieces prepared for the children and the young play a crucial role in Turkish's gaining wide currency. By taking this into consideration, it is regarded necessary that song repertoire be organised in line with the aforementioned aims by reviewing and samples of music repertoire that can be used in preschool music activities and other activities be increased.
- Educational music samples that can be used in teachers' music activities and other activities and that include tonal and modal songs and marches should be constituted and then presented for the preschool teachers' use.
- The number of in service trainings and seminars should be increased so that the teachers can be more competent in the planning and application of group and individual works in music education activities.
- It is known that music education activities with a music teacher not only affects children's musical developments, but also contributes to the improvement of their language, social and emotional, and psychomotor fields. Temiz (2006), in his study, has mentioned that in preschool undergraduate programs, targets and target behaviours towards music education cannot be entirely fulfilled and by reviewing the program, it is necessary that the improvement studies be performed.

As for Geoghean and Mitchelmore (1996), in their studies, they have indicated that music education performed in early childhood period positively affects not only the development of emotive, social and physical skills of the child but also his / her mathematical development. The effectiveness and efficiency of the music education that the child receives in preschool education period will affect his / her academic success in the later years, too. Therefore, preschool music education curriculum should be rearranged and music education in this period should be conducted by music teachers.

- Until the legal regulations are made to enable music teachers to give the music education during the preschool period, there should be some arrangements in the license programs of preschool education departments of universities.
- It is a well-known fact that, during preschool music education, children's interests, requirements and capacities as high as possible, and this can only be accomplished by a well-developed music curriculum and instructors who are competent in the field of music education. It should be taken into consideration that the child's interest in aesthetic thought and attitudes towards life accumulate at this age and this becomes an indispensable part of his future life. This can only be made real by music educators who are trained well for the child's age, and who know music education to children as well as children psychology.

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