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## INVESTIGATION OF THE EFFECTS OF DANCE EDUCATION APPLIED TO 5-YEAR-OLD CHILDREN ON THEIR SOCIAL-EMOTIONAL ADJUSTMENT<sup>1</sup>

### 5 YAŞ ÇOCUKLARINA UYGULANAN DANS EĞİTİMİNİN SOSYAL-DUYGUSAL UYUMLARINA ETKİSİNİN İNCELENMESİ

#### ABSTRACT

This research aimed to investigate the effects of a dance education program applied to 5-year-old pre-school children on their socio-emotional adjustment (appropriate behavior to social living requirements, appropriate response to social situations, interactions with peers, and positive approach to a social environment). A quasi-experimental research design was used in the study. The study group was composed of 40 children (20 in the control group, 20 in the experimental group) attending pre-school in İstanbul. "Marmara Social-Emotional Adjustment Scale," developed by Güven & Işık (2006) for 5-year-old children, was used as the data collection tool. The dance education was given to the experimental group by an expert dance instructor for approximately 40 minutes, once a week for 24 weeks. Due to the lower level of difficulty, it is planned to teach Artvin region folk dance (12 weeks), one of the traditional dances, in the first term, and Salsa training in the second term. Mann-Whitney's U-test and Wilcoxon's signed-rank test were used to analyze the data. This study revealed a significant statistical difference between the experimental and control groups' post-test scores of socio-emotional adjustment (except for the positive approach to the social environment) in favor of the experimental group. There were statistically significant differences in overall social-emotional adjustment skills and appropriate behavior to social living requirements and appropriate response to social situations sub-dimensions in favor of boys. No significant difference was observed between groups in interaction with peers and positive approach to the social environment sub-dimensions according to gender. Moreover, dance education activities performed in the experimental group had a consistent and positive impact on their socio-emotional adjustment skills.

**Keywords:** Preschool children, dance education, social-emotional adjustment.

#### ÖZET

Bu araştırma, okul öncesi 5 yaş çocuklarına uygulanan dans eğitim programının onların sosyo-duygusal uyumuna (Sosyal yaşam gereksinimlerine uygun davranış, sosyal durumlara uygun tepki, akranlarla etkileşim ve olumlu yaklaşım) üzerindeki etkisini incelemek amacıyla yapılmıştır. Araştırmada yarı deneysel araştırma deseni kullanılmıştır. Çalışma grubunu, İstanbul'da anaokuluna devam eden 40 çocuk (20 kontrol grubu, 20 deney grubu) oluşturmuştur. Veri toplama aracı olarak Güven ve Işık (2006) tarafından 5 yaş grubu çocuklar için geliştirilen "Marmara Sosyal-Duygusal Uyum Ölçeği" kullanılmıştır. Deney grubuna 24 hafta boyunca haftada bir gün olmak üzere yaklaşık 40 dakika olmak üzere uzman bir dans eğitmeni tarafından dans eğitimi verilmiştir. Zorluk derecesinin daha düşük olması nedeniyle 1. dönem geleneksel oyunlardan biri olan Artvin yöresi halk oyunlarının (12 hafta) öğretilmesi, 2. dönem ise Salsa eğitiminin verilmesi planlanmıştır. Verilerin analizinde Mann-Whitney U-testi ve Wilcoxon's Signed Rank testi kullanılmıştır. Bu çalışma, deney ve kontrol gruplarının sosyo-duygusal uyum son test puanları arasında (sosyal çevreye olumlu yaklaşım hariç) deney grubu lehine istatistiksel olarak anlamlı bir fark olduğunu ortaya koymuştur. Genel olarak sosyal-duygusal uyum becerileri ve sosyal yaşam gereksinimlerine uygun davranış ve sosyal durumlara uygun tepki alt boyutlarında erkek çocuklar lehine istatistiksel olarak anlamlı farklılıklar bulunmuştur. Akranlarla etkileşim ve sosyal çevreye olumlu yaklaşım alt boyutlarında cinsiyete göre gruplar arasında anlamlı bir fark gözlenmemiştir. Ayrıca deney grubunda gerçekleştirilen dans eğitimi etkinliklerinin sosyo-duygusal uyum becerileri üzerinde tutarlı ve olumlu bir etkisi olmuştur.

**Anahtar Kelimeler:** Okul öncesi çocuklar, dans eğitimi, sosyo-duygusal uyum.

<sup>1</sup> This article is derived from Gülcan Malıyok's master's thesis.

## 1. SOCIAL-EMOTIONAL ADJUSTMENT IN EARLY YEARS

The first six years of human life are crucial. Growth and learning are rapid during this period. Children gain most of the skills and abilities they will use in the future and acquire them in their own social and physical environment. The origin of human adaptation and change is social. This social order created by humans affects one's life. People begin to adapt to their social environment from birth. Children's adaption to this social environment occurs by acquiring social behaviors valid in their society (Bandura, 1999, Bandura, 2006, Oppen & Olmsted, 1999). Children's capacity to achieve social goals, participate effectively in complex interpersonal interactions, build up and maintain friendships, enter social groups, and achieve peer acceptance are the critical areas of child development (Calkins, 1994). In this context, social-emotional adjustment can be defined as an individual's ability to establish positive social relationships, regulate his/her emotions and express them according to the conditions of the environment, and cope with negative emotions (Çorapçı, Aksan, Arslan-Yalçın & Yağmurlu, 2010). These skills, which are accepted as an essential indicator of social development and harmony, develop with age and are frequently used in the pre-school period, especially in environments where the child spends time with other children. Lobo and Winsler (2006) state that the pre-school period has particular importance in social skills. Social-emotional skill in early childhood is a concept that includes skills and cognition in the emotional, cognitive, and behavioral areas of development (Domitrovich, Cortes & Greenberg, 2007). These skills help the child better understand the world and adapt to the society that he/she is a part of it. Lack of social and emotional skills may cause many negativities, such as showing negative behaviors, experiencing emotional problems, being alienated by peers, and academic failure in the future (Ladd, 1990, Parker & Asher, 1987). School and education play the primary role in shaping society. For this reason, school is a potent institution, and pre-school is one of the essential socialization environments for children (Oppen & Olmsted, 1999).

## 2. DANCE EDUCATION IN EARLY AGES

The movement is the basic form of experience and communication (Koff, 2000). When movement takes the form of dance, it emerges as an adaptive, integrated developmental experience in which sensory, motor, cognitive, social, and emotional skills are inherent. Dance can be defined as physical and emotional behavior with aesthetic and rhythmic characteristics formed by a group of movements containing a meaning, with which individuals can express their feelings and thoughts and communicate with their environment (Aktaş, 1999). Dance is also a way to understand the body, self, others, and our existence in the world (Cone & Cone, 2011). Dance has had societal and social importance throughout history since ancient times. Each community created its own dances. Dance forms, genres, and styles express social values and cultural beliefs (Faber, 2017). In the literature, dances were classified in many different ways. In some sources, they are divided into traditional and non-traditional dances, whereas they are divided into religious dances, social dances, and entertainment dances or sportive ballroom dances in others. According to, Lykesas, Tsapakidou, & Tsompanaki (2014), traditional dance, one of the oldest types of dance, represent society itself because it provides an artistic/dance expression through the dynamics of rhythmic movements; it entertains and teaches. By participating in dance events, individuals discover rhythms, reveal their expressive and creative skills, develop interpersonal relationships, communication, and cooperation with other participants in these dance events, and enter a broader social environment. According to him, traditional dance requires dancers to show concentration and synchronization of movement and listen carefully to the music and melodic changes that provide clues for each movement. Teaching and learning traditional dances are also crucial in preserving and popularizing cultural heritage and gaining a cultural identity.

Dance is an educational tool that enables one to learn and understand the environment, and establish healthy communication with the environment, as well as raises cooperative, cultured, sensitive, and creative individuals (Lin, 2005, Gilbert, 2005, Koff, 2000, Lee, 1998, Kraus, Chapman & Dixon, 1991). In the hands of a creative teacher, dance is a powerful tool in every subject (Cox & Burroughs, 1979). Studies show the positive effect of dance education on school-age children. Dance teaches children to know their bodies and express themselves using their bodies. At the same time, it becomes a communication tool for the child who communicates and interacts with the environment (Lutz & Kuhlman, 2000). Dance teaches the child to cooperate, take responsibility and roles, and respect and obey the rules (Lorenzo Lasa, Ideishi & Ideishi, 2007). Dance supports individuals' psychomotor, cognitive, and emotional development; individuals recognize themselves and their abilities and develop them, comprehend their strengths and weaknesses, in this way protect their health, and learn to use their body in the best way (Chatzopoulos, Doganis & Kollias, 2019). There are thoughts that dance strengthens synaptic connections and/or provides

structural changes in connections between neurons (Faber, 2017). Dance exercises increase courage and self-confidence (Bişgin, 2001) and affect socialization positively (Tapmaz, 2012). At the same time, individuals make use of their spare time and acquire personal and social behaviors by participating in dance activities. Laszlo and Baivstow (1980) reported that sensory awareness of body parts is increased in 5-12-year-old children, and the dance performances of some 5- and 7-year-old children are as good as adults (cited in Chatzopoulos, Doganis & Kollias, 2019). Experts state that participation in dance experiences may improve students' social skills, enhance their collaborative skills, help them resolve conflicts, and increase their self-esteem (Bolak, Bialach, & Dunphy, 2005; Cosmin, Remus-Cristian & Alexandra, 2011; Thom, 2010). In recent years, creative dance has come to the fore in early childhood education, and its importance has been mentioned. Creative dance is a unique form of dance that combines the knowledge of movement with the art of expression. According to Laban (1975), the role of the school in creative dance is to develop and enrich spontaneous movement and make the child aware of the principles that guide the movement. Creative movements also improve children's creative abilities by contributing to the development of motor skills and expression skills (Lorenzo Lasa, Ideishi, & Ideishi, 2007). Joyce (1984), on the other hand, outlines the effects of creative dance as socialization, encountering challenges, taking risks, internal discipline, working with others, respecting others, and self-respect (as cited in Tokinan, 2008). Besides, dancing in groups in dance activities requires the child to remember routines, pre-dance steps, and a series of movements that activate the child's memory, which is stimulated through constant repetition (Cosmin, Remus-Cristian & Alexandra, 2011). Based on some of the above-mentioned features of folkloric dances or other dance genres (modern or mixed), it is thought that providing them properly, taking into account children's developmental level, and especially teaching by experienced people by entertaining the children without forcing them, have a positive effect. According to Chun (2019), repetitive training in dance moves will be more effective when children are willing to learn. Dance education will also form a basis for children to be healthy and happy individuals in their future lives. Li (2019) emphasizes that dance teaching should be suitable to the developmental characteristics of children. Preschool teachers may not be sufficiently equipped in this regard. Teachers have significant problems and questions that need to be answered about dance teaching.

Movement is a basic need for pre-school children, such as eating, sleeping, belonging, loving, and being loved. The child discovers their environment while moving and tries to understand and communicate with it. Studies emphasize that movement education programs in the pre-school period are vital. For this reason, movement education programs that meet the movement needs of children should be included in the pre-school curriculum. These education programs should contribute to the psychomotor development of children, arouse interest, and be supported with activities such as games, dance, and drama to be entertaining (Kahl & Emmel 2002, Oktay, 2000, Lorenzo Lasa, Ideishi & Ideishi, 2007). According to experts, dance in the pre-school period has an essential role in the child's motor skills (Lykesas, Tsapakidou & Tsompanaki, 2014; Uzunović, Veselinović, & Stojanović, 2011; Venetsanou & Kambas, 2004). The child follows the rhythm of the music in the dance education process, and his physical coordination ability is greatly improved. Dance mixes music and movement, allowing children to discover their magic and blend them (Cosmin, Remus Cristian & Alexandra, 2011). According to Chun (2019), dance education in pre-school has a significant developmental value for young children. In a sense, it is an important opportunity for developing children's cognitive, thinking, and aesthetic skills. As long as children are allowed to show a certain level of interest in dance education, they love to learn, and get the courage to learn so they can devote themselves entirely to the practice of dance education. Yeti, Syarah, and Machfauzia (2021) stated that dance education given since pre-school would guide teachers and parents in revealing and developing children's dance skills from an early age. Stinson (1989) stated that dance is certainly not the only type of movement pre-school children want or need. It can help to add depth and richness to children's understanding of themselves and their world, contributing to sensory awareness and aesthetic experience. According to Lobo and Winsler (2006), art and particularly dance/movement activities are surprisingly neglected in children's acquisition of socio-emotional competence, and dance curriculum is not addressed as a tool for social (hence emotional) competence for pre-school children.

Researchers have argued that it is better to do creative dance exercises in pre-school rather than structured dance (Faber, 2017, Stinson, 1989). Sacha and Russ (2006) observed that pre-school children who danced using their imagination gave the teacher significantly better visual fixation, were more involved in the task, and enjoyed the task more than the group learning traditional figures. At the same time, they needed less direction, less time to recall, and a shorter time to learn a skill than children in traditional teaching. Creative dance is an essential tool for typically developing pre-school children to reduce socio-emotional risks and maximize social-emotional development and mental health (Çetin & Erdem Çevikbaş, 2020).

There are studies on the relationships between creative dance and social skills (Lee, Kim, Lee & Lee, 2002; Lobo & Winsler, 2006; Hoque, 2007; Lykesas, Tsapakidou & Tsompanaki, 2014), communication skills (Pavlidou, Sofianidou, Lokosi, & Kosmidou, 2018), ego (Hoque, 2007), sensory awareness and motor skills (Chatzopoulos, Doganis & Kollias, 2019; Pollatou, Karadimou, & Gerodimos, 2005; Pavlidou, Sofianidou, Lokosi & Kosmidou, 2018) in the pre-school period. Researchers examined the relationship between pre-school children's motor performance and social dances (Çelik Arslan, 2012) and traditional dances (Biber, 2016; Venetsanou & Kambas, 2004; Stanišić, Kostić, Uzunović, & Marković, 2008). Shen, Zhao, Huang, Liu, and Fang (2020) examined the effect of street dance on the executive functions of 3-6-year-old children. The effects of dance on learning a new skill and paying attention to the activity were also examined (Sacha & Russ, 2006). Piermen (2020), on the other hand, studied the effect of dance integrated at the pre-school level on children's social-emotional adjustment and executive functions. Beyazit (2012) examined the effects of musical movement activities on the development of body coordination in kindergarten children.

Of all arts education disciplines in K-12 schools in the United States today, dance education has an environmental significance in most schools (Risner, 2007). The field of dance education is quite broad and consists of various populations. Dance education is given in schools at all educational stages, starting from pre-school, in private schools providing professional education only in this field, and in cultural centers. According to Munsell, Bryant, and Kimberly (2015), many structured programs have been developed to improve young children's social skills, but few have recognized the role of art in improving social skills. In fact, the role that dance and movement activities can play in the process has often been overlooked. Based on this limitation, the primary purpose of the research is to examine the effect of the dance education program applied to 5-year-old children on their social-emotional adjustment (appropriate behavior to social living requirements, appropriate response to social situations, interactions with peers, and positive approach to a social environment). In line with the purpose of the research, the following questions were addressed:

1. Is there a significant difference between experimental and control group children's social-emotional adjustment post-test scores?
2. Is there a significant difference between experimental and control group children's social-emotional adjustment pre-test scores and post-test scores?
3. Is there a significant difference between experimental and control groups' children's social-emotional adjustment post-test scores according to gender?
4. Is there a significant difference between experimental group children's social-emotional adjustment post-test scores and retention scores?

## **2.1. Research Model**

A quasi-experimental pre-test/post-test design with an experimental-control group was used to reveal the difference between the social-emotional adjustment levels of 5-year-old children participating and not participating in the dance education program. The quasi-experimental design is the most commonly used experimental design, especially in research in the field of education, when it is not possible to control all variables (Büyüköztürk, 2014). The pretest-posttest design with a control group is a solid research model. However, it has several weaknesses, such as the risk of decreasing the subjects' sensitivity as the measurement tools used in the research are administered to the groups twice. Thus, it is recommended to conduct a follow-up study after a particular time following the completion of the quasi-experimental application (Heppner, Kivlighan & Wampold, 1999). In this context, a retention test was applied four weeks after the completion to see whether the effect of the teaching continued.

## **2.2. Research Group**

This research's experimental and control groups consist of 5-year-old children (60-68 months) from two branches of an independent kindergarten in Istanbul. Easily accessible case sampling, one of the purposeful sampling methods, was used. Pre-test results were used to ensure that children in the Experimental and Control groups were equivalent in terms of social-emotional adjustment. Care was also taken to ensure an equal number of girls and boys. Overall, there were 40 children with typical development: the experimental group consisted of 20 children (7 girls, 13 boys) from one class; the control group consisted of 20 children (8 girls, 12 boys) from another class. The class size of the control group has initially been 21. However, one child was not included because of having special needs. None of the children had received dance

education before. Two children from each group had not attended pre-school education before. The teachers participating in the study were graduates of Preschool Education, received 4-year undergraduate education, and were 22-28 years old. The families of the children were generally from the middle socioeconomic level.

Marmara Social-Emotional Adjustment Scale (for 5-year-olds) was applied to the groups before the education program as a pre-test to confirm the equivalence of the social-emotional adjustment of the experimental and control groups.

**Table 1.** Mann-Whitney U-Test Results for pre-test scores

Scales	Groups	N	Sum of Ranks	Mean Rank	U	z	p
Social-Emotional Adjustment (Overall)	Control	20	374.5	18.73	164.5	-.975	.329
	Experimental	20	445.5	22.28			
Appropriate behavior to social living requirements	Control	20	362	18.10	152	-1.318	.187
	Experimental	20	458	22.90			
Appropriate response to social situations	Control	20	346	17.30	136	-1.787	.074
	Experimental	20	474	23.70			
Interactions with peers	Control	20	478	23.90	132	-2.166	.030
	Experimental	20	342	17.10			
Positive approach to the social environment	Control	20	437.5	21.88	172.5	-.832	.405
	Experimental	20	382.5	19.13			

\* $p < .05$  \*\* $p < .01$

Table 1 shows the experimental and control groups' pre-test results for the overall social-emotional adjustment scale and its sub-dimensions. Accordingly, there is no statistically significant difference between groups ( $U = 164.5$ ,  $p > .05$ ). Regarding the sub-dimensions, a significant difference is observed in the "interactions with peers" sub-dimension in favor of the experimental group ( $U = 132$ ,  $p < .05$ ). As a result, it can be said that both groups were equivalent in terms of social-emotional adjustment before the experiment.

### 2.3. Data Collection Tools

Two data collection tools were used in the study, namely the "Personal Information Form" to obtain the demographic information of the children and the "Marmara Social-Emotional Adjustment Scale (MASDU-5-year-old)" to determine social-emotional adjustment levels. In this section, data collection tools are explained in detail.

### 2.4. Marmara Social-Emotional Adjustment Scale (MASDU-5-year-old)

The scale was created by performing the validity and reliability study of MASDU, the original of which was developed for 6-year-old children by Marmara University faculty members (Önder et al., 2004), for 5-year-old children in 2002-2003. The study group consisted of 876 children (405 girls, 471 boys) aged between 5.00 and 5.11 months. The original scale consisted of 36 items and was reduced to 4 factors and 19 items after applying the factor analysis to the obtained data. Internal reliability coefficients of the whole scale and its sub-dimensions were calculated with the Cronbach Alpha technique, and the reliability coefficient was high. In addition, test-retest analyzes were carried out, and the continuity coefficient of the scale was determined. The findings showed that the scale's continuity coefficient was high, and the relationship between tests was insignificant. The sub-dimensions of the scale were as follows: appropriate behavior to social living requirements, an appropriate response to social situations, interactions with peers, and a positive approach to the social environment. The analyses have shown that the scale can be validly and reliably applied to 5-year-old children (Güven & Işık, 2006).

### 2.5. Data Collection

The research was carried out in a kindergarten, having independent status, in Istanbul. There were 260 children 3-5 years old in the school. Families sending their children to school generally belonged to the middle socioeconomic level. The number of children in classes varied between 16-22. The school had club classes (i.e., dance, chess, English); a class receiving dance education and a class not receiving dance education were similar in terms of age, gender, and teacher variables (experience and education level), and two equivalent classes were set. The researcher, who works as a vice-principal at the school, first informed the teachers of the selected groups about the study and got their consent for participation. The pre-test showed no difference between groups, and the next phase of the study was started. At this stage, the parents of both groups were met, and they were informed about the study. The parents of the experimental group were informed about both the measurement tool and the dance education; on the other hand, the

parents of the control group were informed only about the measurement tool. After the briefing, a written Parent Consent Document was taken from the parents willing and approving their child to participate in the experiment. No parent refrained from giving permission to the study in the determined groups. The study was planned and implemented in a way that would not disrupt the pre-school program currently applied to children (day and time interval). MASDU was administered to the children in the experimental and control groups as the pre-test before the Dance Education Program, post-test after the education program, and retention test 4 weeks after the post-test.

## 2.6. Selection of the dance instructor

The researcher has certificates in Latin Dances and Folk Dances. However, a more experienced dance instructor was employed in this study. The instructor has public education and dance education certificates and six years of experience. She is also a Child Development and Education undergraduate student. The general developmental characteristics of the children and especially their motor development were taken into account while preparing the dance program. The researcher and the dance instructor decided to implement a simplified version of the Artvin Region Folk Dance and Salsa dances because of the lower level of difficulty.

## 2.7. Implementation Stage

It was deemed appropriate to give dance education to 20 children for about 40 minutes, once a week for 24 weeks. It is planned to teach Artvin region folk dance (12 weeks), one of the traditional dances, in the first term due to its low difficulty level, and Salsa in the second term.

Folk dances are audio-visual products that reflect the social life, cultural richness, and knowledge of the society they belong to (Bali, 2017) and require various skills such as strength, coordination, balance, speed, endurance, flexibility, orientation, sense of rhythm (Çağlayan, 1994). On the other hand, Salsa is one of the modern dances of Latin America and the United States of America, which is assumed to be of Caribbean origin and performed in pairs or groups accompanied by certain types of music. Salsa, a "freestyle" dance, is often improvised without being tied to routine movements. In this type of dance, repetition does not occur much. Some dancers prefer to stick with the choreography, while others take the freestyle approach. Children can easily learn it with its simple step movements and fun musical style. Salsa allows children to have fun without stereotyping them because it is a dance without rules (Miller, 2011, cited in Çelik Aslan, 2012), which is one of the main reasons for choosing Salsa for this study.

The activities intended to teach movements suitable for folk dance and salsa, such as exercising the muscles and joints, lifting, stretching, musical knowledge, posture, dance position, turning step, low-tempo movements accompanied by music, basic step, side step, turn step, and basic salsa step. Particular attention was paid to using music in dance education, and drums and sometimes zurna was used as live music in folk dances. The lessons were conducted in the school's gym, suitable for dance teaching.

## 2.8. Stages of the Study

**Greeting:** Before starting the lesson, the teacher says "Welcome" to the children one by one and asks them to hold hands and say "Hello" to each other. Short conversations are held with the children about what they did that day and how they felt about it.

**Warmup:** Before the dance lesson, children dance in the way they want, accompanied by music, using the hall as they wish, and using their creativity. This stage takes about 5 minutes.

**Dance Education:** The dance lesson starts with low-tempo basic movements (such as exercising muscles and joints, walking, running, lifting, stretching, and different step exercises) accompanied by music for both dances and continues by teaching dance-specific basic steps from easy to more complex. The choreography accompanied the rhythm and music for the last two weeks in Artvin folk dance, and the program was completed. In salsa, the program allowed children to dance freely with low-tempo salsa steps accompanied by music. This stage takes about 30 minutes.

**Relaxation:** At the end of the dance education, children dance as they want, accompanied by music, using their creativity and the hall as they want. This stage takes about 5 minutes.

In the lessons, children are asked to dance as they want, using their creativity, accompanied by relaxing music that they would love, both during the warmup and relaxation stages, because it was considered important. In this process, some children stated their musical preferences and danced with movements fitting this type of music (such as rap dance). Others wanted to imitate animals with music. Sometimes the

warmup and relaxation times are extended because children enjoy these stages so much.

The researcher participated in the activities of the experimental group together with the dance instructor, observed the developments, and occasionally supported the dance instructor and children when necessary. Folk dance teaching progressed from simple to complex in parallel with the development of the children. Every week the previous activity was repeated and reinforced, new figures were introduced, and this process was continued throughout the education program, aiming for permanent learning. As the program progressed, the number of instructions was reduced because children's readiness for dance figures increased. Children's readiness was high for the Salsa dance taught in the second period, and they learned the movements more easily than in the first period.

The dance instructor and the researcher carefully monitored each child's participation. Teachers increased each child's motivation, provided individual support where they had difficulty, and appreciated their efforts made in this process. Some children, who were reluctant at the beginning of the activity, started to enjoy it over time and became willing to participate. The practitioners' and the classroom teachers' observations showed that the children's confidence in expressing themselves using their bodies was increased throughout the program. The children started to come to school more excited on the lesson days, went down to the gymnasium, and sang songs when they saw the dance instructor. For example, Ayşe (alias) seemed very quiet and reluctant to participate at first. However, as the program progressed, she became more interested in the activities, participated more in them, and at the end of the 4<sup>th</sup> week, she participated entirely willingly. The classroom teacher also agreed that the child changed positively. No child wanted to leave the education program. The children's absenteeism period did not exceed two weeks over a total of 24 weeks of training.

The control group, who did not receive dance education, continued their conventional program, went to the gym once a week, and did motor skills development activities. The objectivity and independence from the principle of the election were ensured by not informing parents and teachers about the child's group (experimental or control).

### 3. FINDINGS

This section contains the findings on the effect of the dance education program given to five-year-old children on their social-emotional adjustments.

#### 3.1. Findings on the difference between the experimental and control group's post-test scores

**Table 2.** Mann-Whitney U-Test Results for post-test scores

Scales	Groups	N	Sum of Ranks	Mean Rank	U	z	p
Social-Emotional Adjustment (Overall)	Control	20	260	13	50	-4.385	<b>.000</b>
	Experimental	20	560	28			
Appropriate behavior to social living requirements	Control	20	292	14.60	82	-3.611	<b>.000</b>
	Experimental	20	528	26.40			
Appropriate response to social situations	Control	20	324.5	16.23	114	-2.967	<b>.003</b>
	Experimental	20	495.5	24.78			
Interactions with peers	Control	20	370	18.50	160	-2.080	<b>.038</b>
	Experimental	20	450	22.50			
Positive approach to the social environment	Control	20	410	20.50	200	.000	1.000
	Experimental	20	410	20.50			

\* $p < .05$  \*\* $p < .01$

As seen in Table 2, there is a statistically significant difference between social-emotional adjustment post-test scores of the experimental and control group children in favor of the experimental group ( $U = 50$ ,  $p < .05$ ). Accordingly, the dance education given in the experimental group was more effective in developing children's social-emotional adjustment than curriculum-based activities used in the control group. There are significant differences between the groups regarding the sub-dimensions except for the "positive approach to the social environment sub-dimension" ( $U = 200$ ,  $p > .05$ ).

### 3.2. Findings on the difference between experimental and control groups pre-and post-test scores

**Table 3.** Wilcoxon Signed-Rank Test results for experimental group pre-test and post-test scores

Pre-test/Post-test	Groups	N	Mean Rank	Sum of Ranks	z	p
Social-Emotional Adjustment (Overall)	Negative Rank	0	0	0	-3.626*	<b>.000</b>
	Positive Rank	17	9	153		
	Equal Rank	3				
Appropriate behavior to social living requirements	Negative Rank	0	0	0	-3.074*	<b>.002</b>
	Positive Rank	12	6	78		
	Equal Rank	8				
Appropriate response to social situations	Negative Rank	0	0	0	-2.989*	<b>.003</b>
	Positive Rank	11	6	66		
	Equal Rank	9				
Interactions with peers	Negative Rank	0	0	0	-2.825*	<b>.005</b>
	Positive Rank	10	5.5	55		
	Equal Rank	10				
Positive approach to the social environment	Negative Rank	0	0	0	-2.719*	<b>.007</b>
	Positive Rank	9	5	45		
	Equal Rank	11				

\* $p < .05$  \*\* $p < .01$

There is a statistically significant difference between the experimental group children's social-emotional adjustment pre-test and post-test scores ( $z = -3.626$ ,  $p < .05$ .) Accordingly, dance education applied in addition to the curriculum contributed positively to the development of social-emotional adjustment of experimental group children.

**Table 4.** Wilcoxon Signed-Rank Test results for control group pre-test and post-test scores

Pre-test/Post-test	Groups	N	Mean Rank	Sum of Ranks	z	p
Social-Emotional Adjustment (Overall)	Negative Rank	0	0	0	-3.853*	<b>.000</b>
	Positive Rank	19	10	190		
	Equal Rank	1				
Appropriate behavior to social living requirements	Negative Rank	0	0	0	-3.684*	<b>.000</b>
	Positive Rank	17	9	153		
	Equal Rank	3				
Appropriate response to social situations	Negative Rank	0	0	0	-3.487*	<b>.000</b>
	Positive Rank	15	8	120		
	Equal Rank	5				
Interactions with peers	Negative Rank	1	2	2	-.577*	.564
	Positive Rank	2	2	4		
	Equal Rank	17				
Positive approach to the social environment	Negative Rank	0	0	0	-2.636*	<b>.008</b>
	Positive Rank	8	4.5	36		
	Equal Rank	12				

\* $p < .05$  \*\* $p < .01$

There is a statistically significant difference between the control group children's social-emotional adjustment pre-test and post-test scores ( $z = -3.853$ ,  $p < .05$ .) Accordingly, the curriculum applied to the control group contributed positively to the development of social-emotional adjustment of the control group children. There are significant differences between scores regarding the sub-dimensions except for the "interactions with peers" sub-dimension ( $z = -.577$ ,  $p > .05$ ).



### 3.3. Findings on the differentiation of Experimental and Control Group social-emotional adjustments according to gender

**Table 5.** Mann-Whitney U-Test results for experimental and control group post-test scores

Scales	Gender	Groups	N	Sum of Ranks	Mean Rank	U	z	p
Social-Emotional Adjustment (Overall)	Female	Control	7	46	6.57	18.00	-1.282	.200
		Experimental	8	74	9.25			
	Male	Control	13	91	7			
		Experimental	12	234	19.50			
Appropriate behavior to social living requirements	Female	Control	7	51	7.29	23.00	-.661	.509
		Experimental	8	69	8.63			
	Male	Control	13	103	7.92			
		Experimental	12	222	18.5			
Appropriate response to social situations	Female	Control	7	49	7	21.00	-1.046	.296
		Experimental	8	71	8.88			
	Male	Control	13	127	9.77			
		Experimental	12	198	16.5			
Interactions with peers	Female	Control	7	48	6.86	20.00	-1.569	.117
		Experimental	8	72	9			
	Male	Control	13	157	12.08			
		Experimental	12	168	14			
Positive approach to the social environment	Female	Control	7	56	8	28.00	.000	1.00
		Experimental	8	64	8			
	Male	Control	13	169	13			
		Experimental	12	156	13			

\* $p < .05$  \*\* $p < .01$

Regarding Table 5, there are statistically significant differences for the overall social-emotional adjustment score ( $U = 0$ ,  $p < .05$ ) and "appropriate behavior to social living requirements" ( $U = 12$ ,  $p < .05$ ), and "appropriate response to social situations" ( $U = 36$ ,  $p < .05$ ) sub-dimensions in favor of boys. There is no significant difference between the groups regarding the "interactions with peers" and "positive approach to the social environment" sub-dimensions.

### 3.4. Findings on the difference between Experimental group social-emotional adjustment post-test and retention scores

**Table 6.** Wilcoxon Signed Ranks Test results for experimental group post-test and retention scores

Post-test/Retention	Groups	N	Mean Rank	Sum of Ranks	z	p
Social-Emotional Adjustment (Overall)	Negative Rank	17	9	153	-3.630*	.000
	Positive Rank	0	0	0		
	Equal Rank	3				
Appropriate behavior to social living requirements	Negative Rank	12	6.5	78	-3.087*	.002
	Positive Rank	0	0	0		
	Equal Rank	8				
Appropriate response to social situations	Negative Rank	11	6	66	-2.971*	.003
	Positive Rank	0	0	0		
	Equal Rank	9				
Interactions with peers	Negative Rank	8	4.5	36	-2.558*	.011
	Positive Rank	0	0	0		
	Equal Rank	12				
Positive approach to the social environment	Negative Rank	8	4.5	36	-2.598*	.009
	Positive Rank	0	0	0		
	Equal Rank	12				

\* $p < .05$  \*\* $p < .01$

There is a statistically significant difference between the experimental group children's social-emotional adjustment post-test and retention test scores ( $z = -3.630$ ,  $p < .05$ ). According to this result, the dance

education applied in the experimental group contributed positively to the development and retention of the social-emotional adjustment levels of the children.

#### 4. DISCUSSION

The study's primary purpose was to examine the dance education program's effect on 5-year-old children attending pre-school education on their social-emotional adjustment (appropriate behavior to social living requirements, appropriate response to social situations, interactions with peers, and positive approach to the social environment). The study's findings showed statistically significant differences between the experimental and control group children's social-emotional adjustments pre-test and post-test scores in favor of the post-tests. These results show that both dance education (experimental group) and conventional education programs (both groups) positively affect children's social development over time. All children developed socially during the long period after the initiation of the study, which is an expected result. On the other hand, regarding the difference between the experimental and control groups in terms of social-emotional adjustment created by dance education, which is the primary purpose of the study, there are statistically significant differences between the groups in favor of the experimental group (except "positive approach to the social environment" sub-dimension). According to this result, it can be said that dance education was more effective in the experimental group children's social-emotional adjustment compared to the control group. Biber (2016) reported that folk dance education made a significant difference in the social development of 5-6-year-old children compared to the control group. Lee, Kim, Lee and Lee (2002) concluded that social skills had been developed with dance in pre-school children, including inclusive students. A creative dance and movement program had been implemented in Head Start schools, and very positive effects of dance were observed on children's social skills (Lobo & Winsler, 2006). Researchers reported that dance increases pre-school children's social-emotional skills (Lorenzo Lasa, Ideishi, & Ideishi, 2007; Munsell, Bryant & Kimberly, 2015; Piermen, 2020) and communication skills (Pavlidou, Sofianidou, Lokosi & Kosmidou, 2018). Thom (2010) found that body and movement exercises in the pre-school curriculum positively affected children's social-emotional adjustments. In addition, studies show the positive effect of dance on social skills in older age groups, too (Anderson, 2015, Goodgame, 2007). In light of all these studies, it can be said that dance is an effective method in children's social-emotional adjustments and these results are in line with the results of this study.

Comparing experimental and control groups' post-test scores according to gender showed no significant difference between girls and boys for "interactions with peers" and "positive approach to the social environment" sub-dimensions. However, significant differences were observed in overall and other sub-dimensions (appropriate behavior to social living requirements, appropriate response to social situations) in favor of men. In Gökçe's (2013) study examining social-emotional adjustments of 5-6-year-old children, girls' adjustment levels were higher than boys' in terms of social-emotional adjustment, except for the "interactions with peers" sub-dimension. In a study (Tapmaz, 2012) conducted with the older age group (10-11 years), folk dances had no positive effect on girls' social adjustment. As there are few studies involving the difference in children's social-emotional adjustments according to gender, further studies are needed on this subject. In addition, at the end of this study, the dance education applied to the experimental group contributed positively to the development and retention of children's social-emotional adjustment levels.

#### 5. CONCLUSION

According to Aldemir (2010), enough place is not given to dance activities in education, and they are generally described as activities without an educational aspect. The variety of dances with rich content that blend different music and movements supports children's developmental areas in the pre-school period and provides the opportunity to meet different cultures. In light of these data, dance, which lets children enjoy, offers various experiences, and contributes to developing their creativity and social skills, should be included in the curriculums at all levels of education, starting from pre-school. Faber (2017) also pointed out that there are very few studies on dance education in early childhood. Based on this, similar studies examining the effect of pre-school dance education programs on children's social-emotional adjustments can be conducted with different dance types, study groups, and children in the risk group, and the results can be compared. The data of this study were collected using quantitative research methods. Conducting similar studies using qualitative methods will also contribute to the field.

The inclusion of dance education in the pre-school education curriculum is expected to positively contribute to children's physical, mental, and social-emotional development and increase the quality of the education provided. It is clear that the increase in the number of dance instructors who are knowledgeable

and experienced in child development will make significant contributions to the field. In addition, it can be suggested that schools that provide arts education and institutions that train pre-school teachers should cooperate in an interdisciplinary way. Raising awareness of pre-school teachers on this issue will contribute significantly to their personal and academic development. School management, teachers, and families should be informed about why creative dance education is needed and its contribution to children.

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