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Peer Teaching Model in Gymnastic Education

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Abstract

The aim of this study is to investigate the effect of peer teaching model in gymnastics education, which is one of the main sports branches and in which the participants are involved in studies with their peer groups. The research was carried out in a quasi-experimental design with pretest-posttest control group. The research was carried out in Akhisargücü Sports Club in Manisa. A total of 29 children aged 7-9, (Experimental=15, Control=14), voluntarily participated in the study. Participants do not have any previous gymnastics experience. Random sampling method was used to determine the groups, and which would be the control or experimental group. To assess social skills, Social Skills Assessment Scale (SSAS) developed by Akçamete and Avcioğlu (2005) was scored by each participant's primary school teachers. Observation forms prepared by the researchers were used to evaluate movement skills. Measurements were taken twice before and after 8 weeks of practice. Mann Whitney U test was used to compare the experimental and control groups data, Wilcoxon Signed Rank was used in the pre-test-posttest difference comparisons of the groups. According to the analysis results, in terms of social skills, the difference scores of the peer education were found to be statistically significant (p<.050) while the difference scores of the control group were statistically insignificant (p>.050). According to the results of the analysis of movement development specific to gymnastic, significant difference was found in both groups (p<.050). As a result, it has been seen that both the peer teaching model and the traditional method support movement development in gymnastics education. In addition, it has been found that the peer teaching model in gymnastic education improves social skills more than traditional teaching. Keywords: Peer teaching model, Social development, Movement development, Gymnastic

Cimnastik Eğitiminde Akran Öğretimi Modeli

Öz

Bu araştırmanın amacı, temel spor branşlarından biri olan ve katılımcıların akran grupları ile birlikte çalışmalara dahil oldukları cimnastik eğitiminde akran öğretimi modelinin çocukların sosyal gelişimlerine ve cimnastiğe özgü hareketlerdeki gelişimlerine etkisini incelemektir. Araştırma öntest-sontest kontrol gruplu yarı deneysel desende yürütülmüştür. Araştırma Manisa ilinde bulunan Akhisargücü Spor Kulübünde gerçekleştirilmiştir. Araştırmaya 7-9 yaş arası toplam 29 çocuk (deney= 15, kontrol= 14) gönüllü olarak katılmıştır. Katılımcılar daha önce herhangi bir cimnastik deneyimine sahip değillerdir. Grupların oluşturulmasında, kontrol ve deney grublarının belirlenmesinde rastgele örnekleme yöntemi kullanılmıştır. Sosyal becerileri değerlendirmek için, Akçamete ve Avcıoğlu (2005) tarafından geliştirilen Sosyal Beceri Değerlendirme Ölçeği (SBDÖ), her katılımcının ilkokul öğretmeni tarafından puanlanmıştır. Hareket becerilerinde ise araştırmacılar tarafından hazırlanan gözlem formları kullanılmıştır. Ölçümler, 8 haftalık uygulama öncesinde ve sonrasında test tekrar test yöntemi ile alınmıştır. Deney ve kontrol grubu verilerinin karşılaştırılmasında Mann Whitney U testi, grupların ön test-son test fark karsılastırmalarında ise Wilcoxon isaretli sıralar testi kullanılmıştır. Analiz sonuclarına göre, sosyal beceriler acısından akran öğretimi modeli fark puanları istatistiksel olarak anlamlı bulunurken (p<.050), kontrol grubunun fark puanları istatistiksel olarak anlamsız bulunmuştur (p>.050). Cimnastiğe özgü hareket gelişimi analiz sonuçlarına göre, her iki grupta da anlamlı fark bulunmuştur (p<.050). Sonuç olarak, cimnastik eğitiminde hem akran öğretimi modelinin hem de geleneksel yöntemin hareket gelişimini desteklediği görülmüştür. Ancak, cimnastik eğitiminde akran öğretimi modelinin geleneksel öğretime göre sosyal becerileri daha fazla geliştirdiği tespit edilmiştir.

Anahtar kelimeler: Akran Öğretimi modeli, Sosyal gelişim, Hareket gelişimi, Cimnastik

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INTRODUCTION

The existence of widely accepted international standards in Physical Education and Sports (PES) is not effective in achieving the targeted learning outcomes of the participants. Teaching models are an important factor that should be considered in order for the programs to comply with the standards (Metzler, 2011). There are many teaching model to be used in physical education (Direct instruction, Personalized system for instruction, Cooperative learning, Sport education, Inquiry teaching, Tactical games, Peer teaching and teaching personal and social responsibility) or any sportive activity for students to achieve the intended goals, and it is very important for qualified teachers to know them and put them into practice (Metzler, 2017; Mirzeoğlu, 2017). NASPE (2022, National Standards for Physical Education), recommends developing and implementing a student-centered coaching philosophy for PES educators. According to NASPE standards, it has been reported to the educators that they should focus on all the participants in the process and give priority to the practices for all development areas instead of the philosophy of winning at any cost. It has been stated that different skills such as obeying the rules, regulating their own emotions and cooperating with the others can be developed through sports activities in children. However, in terms of social development, which is also the subject of this research, peer interaction is one of the most important issues to be considered due to the social structure of PES (Melikoğlu, 2020; Pacholíka & Nedelova, 2019).

Gymnastics, which is the oldest and universal educational tool, is an effective basic branch in all areas of development by providing the opportunity to cooperate and socialize with small group activities while improving physical fitness (Kleinman, 2009). Due to its disciplined focus, it is thought that gymnastics does not have a enjoyable feature like other sports (Güneş & Coknaz, 2010). For this reason, it is stated that the lesson should be purposeful, lively and active in order to be effective (Pallett, 2014). Except for Direct Instruction, Personalized System for Instruction, Cooperative Learning, Sport Education, Inquiry Teaching, Tactical Games and Teaching Personal and Social Responsibility, among the models mentioned by Metzler (2005), especially the Peer teaching model is formed by the combination of many teaching strategies. In this context, the peer teaching model, which is one of the eight models defined by Metzler (2005) for PES, can be used in gymnastics education in order to increase the socialization of the participants with student-focused activities. Because Peer Teaching allows students to take a more active role in the learning process, establish a collaborative relationship with their peers, and engage in more peer interaction (Wang, 2016). Unlike traditional direct teaching, there is both cognitive and social interaction between the teacher and the learner in peer teaching (Li, 2023). Peer teaching has been formed by the combination of many teaching strategies. The focus of this model is that students help their peers learn (Mirzeoğlu, 2017). In peer teaching, the students take on two different roles as a learner and a teacher. The development area priority for the teacher student is cognitive, affective-social and psychomotor learning. In terms of learner, this order is in the form of psychomotor, cognitive and emotional-social development (Atlı, 2017). In this scenario, children will have the opportunity to develop their movement skills when they are in the learner position, and their knowledge and skills when they are in the teacher position. At the same time, they will socialize by communicating and experiencing solidarity and cooperation while helping each other learn in the group.

In the literature, in general, activities such as sports, physical activity or games are used in mentally handicapped (Özdemir et al., 2018), attention deficit and hyperactivity disorder (Makunina et al., 2020), hearing impaired children (Barimani et al., 2018). Although there are studies stating that there are positive contributions in terms of social skills in children with social adaptation problems (Garaigordobil, 2008), no study has been found on the examination of social development in the branch of gymnastics, where physical activity is at a intense. When the relevant literature is examined, it is seen that there are studies in which some teaching models such as cooperation (Güneş & Çoknaz, 2010), multiple intelligences (İlhan et al., 2005), sports education model (Koyuncuoğlu, 2015) and jigsaw learning are used. However, no study was found in which the peer teaching model was examined in gymnastics education and evaluated in terms of both psychomotor and social development. Due to the limited number of studies on gymnastics training, which is a basic branch in the field of PES, in the literatüre, we think that this study will be useful for the literature in terms of increasing the quality of education and increasing the output value, by incorporating a model-based approach into the process. Therefore, the aim of the study was determined as the examination of the effect of the peer teaching model in basic gymnastics education on the social development of children and the development of movement skills specific to gymnastics.

METHOD

Research Design

This research is in the semi-experimental design with pretest-posttest control group. This pattern is a powerful design that provides statistical contribution to the researcher by examining the effect of the applied procedure on the dependent variable and allows the interpretation of the findings (Büyüköztürk, 2016).

Study Group

The study group of this research consists of a total of 29 children (Experimental: 15, Control: 14) between the ages of 7-9 who started gymnastics activities at the same time and worked with the same trainer at the Akhisargücü Sports Club in the Akhisar district of Manisa. None of the children participate in any sport other than gymnastics. Random sampling method was used to determine the groups, and which would be the control or experimental group.

Ethical Approval

At the beginning of the study, research approval was obtained from the Health Sciences Ethics Committee of Manisa Celal Bayar University Faculty of Medicine, with the decision number 20.478.486/1336, dated 11/05/2022. This study complies with the Declaration of Helsinki. The study follows the "Council of Higher Education Scientific Research and Publication Ethics Directive" in terms of scientific, ethical, and citation requirements. In addition, consent was obtained from the parents of the child participants.

Data Collection Tools

Social Skills Assessment Scale (SSAS): SSAS developed by Akçamete and Avcıoğlu (2005) and whose validity and reliability study was conducted for 7-12 age groups, was used to evaluate the social skills of the study group. The scale consists of 12 subscales and 69 items, all of which contain positive statements. The sub-dimensions of the scale are as follows: basic social skills (e.g. substance: listens when others speak), basic speaking skills (e.g. substance: initiates speech), advanced speaking skills (e.g. substance: adjusts the tone of voice when speaking), relationship initiation skills (e.g. substance: introduces herself/himself to the first people she/he meets, ability to maintain relationships (e.g. substance: apologizes when hurting someone), group-work skills (e.g. substance: participates in group activities), emotional skills (e.g. substance: expresses opinions that differ from others), self-control skills (e.g. substance: avoids disturbing others), skills to cope with aggressive behavior (e.g. item: defends himself against accusations), ability to accept consequences (e.g. item: responds calmly when unsuccessful), instructive skills (e.g. item: asks questions when necessary), and cognitive skills (e.g. item solves a problem). According to the reliability results, the Cronbach Alpha value of the Social Skills Assessment Scale (SSAS) was calculated as .98 (Akçamete & Avcıoğlu, 2005). For this study, this value was determined as .94.

Movement Skill Scoring Charts: To assess movement skills, using the observation forms prepared by the researcher, basic movements specific to gymnastics, forward roll, backward roll, cartwheel and handstand forward roll were scored individually for each participant by 2 different gymnastics trainers and the total score of 4 movements were calculated. Observation forms were prepared by writing down all the features of each movement that should be considered during the application (Özer & Soslu, 2020). In Table 1, there is an example scoring chart containing the information according to which criteria the cartwheel technique is scored.

Data Collection

The research was carried out in Akhisargücü Sports Club in Akhisar district of Manisa. Parents of the children were informed about the study and their written consent was obtained. The Social Skills Assessment Scale (SSAS) was filled by the children's classroom teachers. Basic movement skills were scored by the 2 different gymnastics coaches. One of the scoring coaches has 8 years and the other has 6 years of experience. The coaches made the scoring independently of each other and the average score of the two coaches was included in the analysis. After 8 weeks of practice, the measurements were taken again with the same method for the post-test data. Inter-rater agreement statistics were applied separately for the pre-test and post-test.

Table 1.	Example cartwheel	scoring chart
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p - la -				SCORIN	lG	
	POINTS TO BE CONSIDERED IN EVALUATION CRITERIA	1 (unsuccessful)	2 (low level)	3 (intermediate level)	4 (mid-high level)	5 (high level)
Initial phase of	Feet closed, body straight, head up, arms open at					
movement	shoulder level					
Implementation	Lean forward with standing leg in arms up position					
phase of the	Stretching the rear foot back and placing the hands					
movement	one by one at the level of the front foot					
	Clear display of straddle position in the air					
	Landing of the feet on the ground one by one at the					
The final stage of	linear level of the hands body upright, head up,					
the movement	arms open at shoulder level position					
	TOTAL SCORE:					

Table 2 shows the work plan created for the experimental group based on peer teaching.

	innental group program to be taught with peer teaching model
Unit	Gymnastics
Age Group	7-9
Days	Saturday-Sunday
Duration	1 hour
Number of students	Experimental group n:15
Location	Akhisargücü Sports Hall Gymnastics Lesson Area
Number of students	7 student per lesson (each student will pair up and teach each other)
teaching	
Selection of students	Students will be released to match in the peer teaching model process. At lesson, one
who teach their	of the students in the group of pairs will teach and control the movement to a student
friend	friend, and then the learner will teach it to his friend. In the 8-week training program,
	each student will assume the roles of learner and teacher.
Course contents to	1st week: Basic gymnastics poses (front stances, bench stances, glider, bridge, athlete
be taught with peer	sitting, eagle stance, long sitting, open-legged sitting, etc.).
teaching model	2nd week: Basic warm-up exercises and animal imitations in gymnastics (runs, leg-
	raising walks, galops, bear walks, rabbit, injured rabbit, crab, worm, snake, etc.).
	3rd week: Basic balance stances in gymnastics (forward balance, side balance, glider,
	vertical hold, 90 degrees front leg hold, etc.)
	Week 4: Flexibility poses in gymnastics (spagat, bridge, long sitting forward folding,
	waist stretch, vertical, etc.)
	Week 5: Types of forward and backward rolls (open leg forward roll, straight leg
	forward roll, open leg backward roll, straight leg backward roll, etc.)
	<b>Week 6:</b> Handstand and basic movements through handstand (handstand, handstand forward roll, cartwheel etc.)
	Week 7: Aerobic gymnastics basic steps (jumping jack, knee lift, skip, jog, kick,
	lunge, march).
	8th week: Repetition of movements in which the development of movement skills
	will be observed (forward roll, backward roll, cartwheel, handstand forward rool).
Implementation and	The 8-week program was created with 2 raters and gymnastics trainers, and detailed
assessment	information about the model was given to the gymnastics trainer, who will teach with
	the peer-teaching model. The gymnastics coaches of the children participating in the
	study applied the peer teaching model. The experience of the gymnastics coach in this
	branch is noted as 8 years.
	Before each peer teaching model course content, the gymnastics trainer will explain
	to the students the points to be considered in the procedures to be done according to
	the topic of the week. At the end of the lesson, the movement of each group will be
	checked and an evaluation will be made.

**Table 2.** 8-week experimental group program to be taught with peer teaching model

The similar program was applied to the control group with the traditional method for 8 weeks without using the peer teaching model.

### Analysis of Data

Mann Whitney U test was used in the comparisons of the experimental and control groups, Wilcoxon Signed Rank test was used in the pre-test-post-test difference comparisons of the groups, and Cohen's Kappa test and correlation was used in the comparison of the raters. IBM SPSS 22 data analysis program was used in data analysis.

## FINDINGS

**Table 3.** Mann Whitney-u test results including the analysis of the social skills assessment scale pre-test scores taken from the groups.

Group	Ν	Mean Rank	Sum of Ranks	U	р
Experimental	15	15.37	230.50	99.500	.810
Control	14	14.61	204.50		

In the Mann Whitney-U test performed to analyze whether there was a significant difference between the pretest SSES total scores of the experimental and control groups, the difference was not found to be significant (p > .05).

**Table 4**. Mann Whitney-u test results including the analysis of the gymnastic movement skills pre-test scores taken from the groups.

Group	Ν	Mean Rank	Sum of Ranks	U	р
Experimental	15	14.20	213.00	93.000	.600
Control	14	15.86	222.00		

As a result of the Mann Whitney-U test performed to compare the gymnastic movement skills pretest total scores of the experimental and control groups, it was determined that the difference was not significant (p>.05).

**Table 5.** Pretest-posttest scoring compatibility of the raters.

Test	Raters	Карра	р
Pretest	R1-R2	.662	.000
Posttest	R1-R2	.686	.000
D1			,

R1: rater 1, R2: rater 2

According to the statistical results of the scoring of 2 different gymnastic coaches (experts) through the observation forms, the kappa value of the pre-tests was .662 (p<.05), and the kappa value of the post-tests was .686 (p<.05). In terms of inter observer agreement, values between .61 and .80 mean that there is sufficient agreement between the raters (Landis & Koch, 1977).

Table 6. Correlation of raters' pretest scores of all participants.

	R1 (pretest)	R2 (pretest)
R1 (posttest) Pearson Correlation	1	.956
р		.000
Ν	29	29

According to Table 6, it is seen that the pre-test scores of the raters have a significant (p < .05) and high level (r: .956) relationship with each other. Therefore, it can be said that the scores given by the raters to the participants' pre-tests are compatible with each other.

	R1 (posttest)	R2 (posttest)
R1 (posttest) Pearson Correlation	1	.938
р		.000
Ν	29	29

According to Table 7, it is seen that the pretest scores of the raters have a significant (p < .05) and high level (r: ,936) relationship with each other. Therefore, it can be said that the scores given by the raters to the participants' posttests are compatible with each other.

**Table 8.** Wilcoxon test results including the analysis of the pretest-posttest total scores of the experimental group social skills assessment scale.

	Ν	Rank averages	Rank totals	Z	р
Negative rank	2ª	5.50	11.00	-2.785	.005
<b>Positive rank</b>	13 ^b	8.38	109.00		
Equal	0°				
Total	15				

In the analysis applied to compare the Social Skills Evaluation Scale pretest-posttest total scores of the experimental group in which peer teaching was applied, it was found that the difference between the two tests was statistically significant (p<.050).

**Table 9.** Wilcoxon test results of the control group's social skills assessment scale pretest-posttest total scores

	Ν	Mean Rank	Sum of Ranks	Z	р
Negative rank	6 ^a	3.67	22.00	-1.915	.055
Positive rank	8 ^b	10.38	83.00		
Equal	$0^{c}$				
Total	14				

In the analysis applied to compare the Social Skills Assessment Scale pretest-posttest total scores of the control group who received gymnastics training without peer teaching, it was found that the difference between the two tests was not statistically significant (p>,050).

Table 10. Wilcoxon test results of the experimental group's gymnastic movement skills pretest-posttest total scores

	Ν	Mean Rank	Sum of Ranks	Ζ	р
Negative rank	1 ^a	1.00	1.00	-3.235	.001
Positive rank	13 ^b	8.00	104.00		
Equal	1 ^c				
Total	15				

As a result of the Wilcoxon test conducted regarding the difference between the pretest-posttest total scores of gymnastic movement skills of the experimental group to which peer teaching was applied, the difference was found to be significant (p<.050).

Table 11. Wilcoxon test results of the control group's gymnastic movement skills pretest-posttest total scores

	Ν	Mean Rank	Sum of Ranks	Ζ	р
Negative rank	1 ^a	2.00	2.00	-3.170	.002
Positive rank	13 ^b	7.92	103.00		
Equal	$0^{c}$				
Total	14				

As a result of the Wilcoxon test for the difference between the gymnastic movement skills pretest-posttest total scores of the control group who received traditional gymnastics training, the difference was found to be significant (p<,050).

## DISCUSSION

When the pre-test and post-test of the Social Skills Assessment Scale obtained were compared, no statistically significant difference was observed in terms of the scores of the control group in the study. However, in terms of social skill development, it was observed that the post-test scores of the experimental group were significantly higher than the pre-test scores. It is mentioned in the literature that PES activities can be used to develop children's social skills and to support their development processes especially at an early age (Özyürek et al., 2015; Yıldız, 2019). Based on the effect of sports on socialization, Zurc (2012) stated that physical activity has a significant effect on children's social skill levels, Er et al. (1999) found that there were significant differences in the social development of all children and adolescents who voluntarily participated in the summer swimming course, Aksoy (2020) stated that physical activities had a positive effect on their socialization skills. Rombot (2017) stated that traditional games, which can be among the sportive activities, also affected the social skills and developed childs' gross motor skills. In addition, there are studies proving that sportive activities also provide benefits in terms of social development in disadvantaged groups (İlhan, 2008; İlkim, Tanır & Özdemir, 2018; Şahin & Şahin, 2020; Yılmaz & Şahin 2022). Studies in the literature support the importance of sports in terms of social development.

Regarding the effect of peer teaching on socialization, Esentürk (2019) states that the peermediated adapted physical activity program applied to children receiving inclusive education has an intense effect on social development. Yarımkaya (2018) states that the participation of individuals with moderate intellectual disability in the peer-mediated adapted physical activity program has a positive effect on their socialization levels. Padilla et al., (2020) stated that the peer teaching learning model has a positive effect on social skills. Sevim's (2019) research results supports the peer teaching model, which we predict can have a positive effect on social development in this study, stating that participation in sports activities improves peer support positively. Madou and Iserbyt (2018) stated that the peer learning process is suitable as a teaching model in swimming classes because non-swimmers can be included in the course content to a large extent thanks to this model; Seenan et al., (2016) stated that peer education helps to increase skills and confidence in communication and teamwork. It can be said that these results are since peer teaching improves social relations. Ozbal and Eski (2019) examined peer teaching separately as a teaching and learning outcome. They found that teachers improve their teaching and communication skills, and learners communicate more easily while improving their skills. In the study of Comfort & McMahon (2014); it has been reported that sports science students are more successful when they are taught by their peers in practical activities. In addition, in the studies of Alegre-Ansuategui and Moliner-Miravet (2017) with secondary school students and Mellado et al., (2017) investigating peer teaching with university students, it was stated that students' social skills improved. Based on these findings, it is possible to say that sports lead to positive social development. In his study, Toplu (2022), no significant difference was found between the social skill levels of preschool children and

their interactive peer relationships. It is thought that this result may be since peer relations in preschool children need more support. Studies in the literature generally support the results of this study by stating that peer-supported teaching can provide positive contributions in terms of social development.

Another main finding of the study is that the difference between the total scores of both groups in the pretest-posttest results of gymnastic movement skills was found to be significant. Both the experimental group, to which peer instruction was applied, and the control group, which received training with the traditional method without applying the model, both showed significant improvement in gymnastics-specific movement skills. Looking at the contribution of peer teaching to the literature in sportive activities, Damghanian et al., (2019) noted that the peer teaching model improved the average physical activity scores of girls, Cui et al. (2012) noted a promising intervention in reducing sedentary behaviors in adolescents in China. Also, Lieberman et al. (2000) found that deaf students and peer educators increased their physical activity intensity after the start of peer education. Ayvazo and Ward (2009) stated that there was an increase in the number of correct attempts in all of the students, while Johnson and Ward (2001) stated that the children performed fewer total trials but performed more correct trials.

When the literature examining the relationship between peer teaching and motor skills is examined; in the studies of Chatoupis (2015), Ernst and Byra (1998), the motor skill performance of the students improved, Padillah et al. (2020) that the model has a positive effect on volleyball game performance. Iserbyt et al., (2011) found that the model achieves motor goals as well as a teacher-centered format in tennis. Ward et al., (1998) also stated that in volleyball, students performed more movement exercises and were more successful. Palmizal and Octadinata (2019) stated that the peer teaching model influenced learning on the forearm pass results of seventh grade male students in volleyball. In addition, Asngari and Sumaryanto (2019) reported that peer-like social interactions can help students' differing psychomotor performances in their study. In contrast, Chen et al. (2017) reported that peer support does not directly affect physical activity, but indirectly through self-efficacy or enjoyment. In their study, Mirzeoğlu et al. (2014) did not find a significant difference in the level of students' achievement of volleyball-specific skills in the peer teaching group. It is thought that these results may be due to the differences in the educational content applied in the studies, the total application times, and the variables such as the participation status of the students. In addition, Juliantine et al. (2017) stated that the peer teaching model in volleyball affects students' selfconfidence and teamwork, but the cooperative learning model affects them more. When compared with the literature findings in general terms, it is understood that the findings obtained from the research are consistent with the literature (Aksoy, 2020; Esentürk, 2019; Padilla et al., 2020; Rombot, 2017; Seenan et al., 2016; Sevim, 2019; Zurc, 2012). However, the limitations of the study; the fact that only 29 children between the ages of 7-9 who participated in gymnastics activities were included, that no other model with which the peer teaching model could be compared was used, can be listed as the fact that the families may have filled in the social skills assessment scale incorrectly.

## CONCLUSION AND RECOMMENDATIONS

In the study, it was found that the peer teaching model used in basic gymnastics education had positive effects on social development and the development of gymnastics-specific movement skills in children. In addition, it has been determined that peer teaching creates more meaningful and effective results than the traditional method in terms of social development. This study has a unique quality and constitutes an infrastructure for future studies, since there is not much work in the literature on gymnastics training, which is a basic sport branch, and a model-based approach is included in the process. Although the study group is limited to children between the ages of 7-9 and gymnastics, it is suggested that for future research, model-based experimental studies can be carried out in different samples, in different branches, for longer periods, and comparisons can be made by using different models as a Direct Instruction, Personalized System for Instruction, Cooperative Learning, Sport Education, Inquiry Teaching, Tactical Games and Teaching Personal and Social Responsibility except Peer Teaching in PES lessons or sportive activities.

**Conflict of Interest:** There was no personal or financial conflict of interest within the scope of the study.

**Researchers' Statement of Contribution Rate:** Research Design SY, MA; Data Collection SY; Statistical analysis SY; Preparation of the article SY; MA.

Ethical Approval Board Name: Health Sciences Ethics Committee of Manisa Celal Bayar University Faculty of Medicine Date: 11/05/2022 Issue No: 20.478.486/1336

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