EFFECTS OF INDIVIDUAL COMPETITIVE AND COOPERATIVE TARGET ORIENTATIONS APPLIED IN 2ND LEVEL ELEMENTARY EDUCATION ON STUDENTS’ ATTITUDES TOWARDS PHYSICAL EDUCATION AND SPORT CLASSES

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Abstract: Aim: The aim of this project is to determine the effects of individual and cooperative target orientation, which are two orientations used for planning physical education classes for 2nd level elementary school students, on students’ attitude towards physical education and sport classes. Method: 47 (7th grade) students participated in this study. “Attitude Toward Physical Education and Sport Lesson” scale was used. The questionnaire was applied as pre-test and post-test. Physical education classes were organized during the period of six weeks between pre-test and post-test. The sample group was divided into 2 groups. While physical education class with competitive target orientation was held in the first group (n = 24), physical education class with cooperative target orientation was held in the second group (n = 23). Mann-Whitney U Test and Wilcoxon analyses were used for data analysis. Results: There is no significant difference between the groups in pre-test and post-test. Conclusion: Physical education classes organized with the methods of competitive target orientation and cooperative target orientation do not affect students’ attitudes towards physical education and sports lessons.

Key Words: Physical Education Lesson, Orientation, Attitude

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INTRODUCTION

Education is a broad concept encompassing all individuals. Each individual, from birth to death, is involved in educational processes either willingly or reluctantly. Therefore, education has been a topic of interest which has attracted everyone in all societies for centuries. For this reason, education has been dealt with and defined by many different individuals and circles, both educators and others, with different viewpoints.

In recent years, particularly, the number of studies focusing on sports sciences has been on a rapid rise. Teaching methods have a significant place among issues concerning physical education and sports teaching. “Employing Teaching Methods Effectively”, which is one of the most important qualities of a teacher, has been among the leading discussion topics. The fact that physical education and sportive activities do not only relate to the psychomotor domain, but they are also effective on cognitive and affective domains is now emphasized by all related studies. One way to enhance this effect may be the use of different teaching methods and target orientations that develop different domains by physical education teachers and trainers.

In addition to the elements of instruction, it is necessary to use various methods and techniques for teaching activities to attain the desired learning outcomes. The teacher should be able to use different strategies and teaching methods according to the learning styles of students and the features of the topic to be instructed.

In order to maximize learning efficiency, physical education teachers have to determine which target type would be appropriate for a higher number of students. Accurate decisions made concerning the target could make a good-level physical education class possible. Choosing the suitable target is one of the most critical decisions to be made by teachers; however, it turns out to be the most overlooked one.

Two approaches can be used in order to reach the target. These are cooperative and competitive approaches.

Cooperative learning encourages students to discuss, share opinions and as a result to teach each other. Cooperative learning method, which is suggested as a solution for many problems coming up concerning education, generally highlights the ability to think, and high-level learning and is considered as a tool that can allow for grouping abilities, eliminating learning difficulties, getting used to working together with others from different racial, ethnical, religious and class backgrounds and naturalizing each other’s presence. Cooperativa-
tive learning also prepares students to get into cooperation (Davidson, 1991: 362-365).

In the competitive approach, students are rivals to one another. Negative dependence occurs in cases when one student’s or a group of students’ reaching the target depends on the others’ failure. For example, in a rope jumping competition, this dependence is made clear when deciding on who will jump the rope. While other students are given less opportunity, one student will have the greatest chance. In this case, his/her reaching the target will block other students. A few students will be able to reach the target while others will fail.

The first publication on cooperative learning in Turkey is the study published by Ün in 1987 with the title of “Cooperation or competition in learning?” (As cited in: Açıkgöz, 1992). Many studies have been conducted on target orientations used in education both in Turkey and abroad (Açıkgöz, 1992; Kasap, 2002; Açıkgöz, 1996; Kartaoğlu, 1999; Tonbul, 2001; Johnson et al, 1981).

The effects of cooperative learning in physical education and sport teaching have similarly been studied by many researchers both in Turkey and abroad and new ideas have been put forward on its effects (Grineski, 1993: 32-35; Polvi and Telama, 2000; Bartrett, 2000; Dyson, 2001: 264-281; Pehlivan and Alkan, 2002).

Attitude is a mental, emotional and behavioral reaction predisposition which an individual organizes towards himself/herself or any object, social issue or event around himself/herself based on his/her experience, motivation and knowledge (İnceoğlu, 2000). Attitude is a phenomenon which is earned through learning, guides one’s behavior and causes bias in the process of decision making. Attitudes are formed as a result of learning process through experience (Tavşancıl, 2002). Attitude consists of three components. These include cognitive, affective and behavioral (observable acts) processes (Ülgen, 1997). Attitudes may strengthen or weaken. Some attitudes strengthen and increase in resistance upon learning, while others may change later. Attitudes that would strengthen or those that would change differ from individual to individual and from society to society. For these properties of attitude, it is a topic that must be studied deeply especially in education and teaching environments where methods and target orientations are effective. Many studies have been carried out in Turkey and abroad in order to discover how an individual can understand the importance of “life-long sport”, which is one of the most significant targets in physical education classes in particular (Koçak and Kirazçı, 1997; Balyan, 2002).
The aim of this project is to determine the effects of individual and cooperative target orientation, which are two orientations used for planning physical education classes for 2nd level elementary school students, on students’ attitude towards physical education and sport classes.

**MATERIAL and METHOD**

The present study was designed in the “Experimental Research” model in which the data obtained through inventory and use of cooperative target orientation and competitive target orientation were analyzed with different statistical methods.

**Population and Sample**

The study was participated by a total of 47 students aged 13-17. The sample group of the study consisted of 47 students attending the 7th grade. Physical education classes were held using the individual competitive method with half the students (n:23) and the cooperative target orientation with the other half (n:24).

**Data Collection and Analysis**

The inventory used was applied as pre-test and post-test prior to and following the study. After the application of the pre-test, physical education classes were held with the given methods for 6 weeks. At the end of the 6-week period, both groups were given the post test and their attitudes towards physical education classes were compared. The study was conducted in an elementary school located in the city of İzmir. It was carried out in the spring semester of the 2011-2012 academic year.

The study employed a scale consisting of two parts. The first part of the scale included a personal information form and in the second part, the “Attitude toward Physical Education and Sport Lesson” Scale developed by Demirhan and Altay (2001) was used in order to measure students’ attitudes. The scale is a 5-Likert type scale consisting of 24 items, 12 positive and 12 negative.

The Cronbach Alpha reliability and scale validity coefficients of the scale were calculated as 0.90 and 0.82 respectively. The scale is one-dimensional.

**Data Analysis**

In the analysis of the data, Mann-Whitney U test was used to examine the attitude values obtained from individual competitive and target orientations and Wilcoxon paired samples.
test was applied to examine the pre and post tests of individual competitive and target orientation.

Aim of the Research

The main purpose of the present study was to determine the effects of individual competitive and cooperative target orientations, two of the target orientations used in planning physical education classes of students attending 2nd level elementary education, on the attitudes of students towards physical education classes.

RESULTS

The results findings obtained from the study are presented below as descriptive statistics, Mann-Whitney U test and Wilcoxon signed-rank test respectively:

| Table 1. Descriptive Statistics Concerning the Students’ Scores of Attitude Towards Physical Education Classes Held With Individual Competitive and Cooperative Target Orientations |
|---|---|---|---|
| | Values on the Attitude Toward Physical Education and Sport Lesson Scale | | |
| | $\bar{X}$ | $Ss$ | Min. | Max. |
| Individual competitive target orientation group | | | | |
| Pre-test | 71.54 | 7.78 | 51 | 93 |
| Post-test | 72.58 | 9.97 | 45 | 88 |
| Cooperative target orientation group | | | | |
| Pre-test | 70.69 | 7.94 | 49 | 91 |
| Post-test | 72.26 | 7.38 | 54 | 86 |

Descriptive statistics concerning students’ scores of attitude towards physical education classes which used individual competitive and cooperative target orientations are given in table 1. Accordingly, it is seen that arithmetic mean and standard deviation is 71.54 ± 7.78, minimum value is 51, and maximum value is 93 in the pre-test results of the class that used the individual competitive method, whereas arithmetic mean and standard deviation appears as 72.58 ± 9.97, minimum value as 45 and maximum value as 88 in the post-test results. In the cooperative target orientation group, pre-test results are 70.69 ± 7.94 for arithmetic mean and standard deviation, 49 for minimum value and 91 for maximum value, while in the post test results, it is seen that arithmetic mean and standard deviation is 72.26 ± 7.38, minimum value is 54, and maximum value is 86.
Table 2. Mann-Whitney U-Test and Attitude Value Pre-Test Statistics of Individual Competitive and Cooperative Target Orientations

| N    | Rank mean | Rank total | Mann-Whitney U-test | P   |
|------|-----------|------------|---------------------|-----|
| 24   | 25.63     | 615.00     | 237.00              | 0.41|
| 23   | 22.30     | 513.00     |                     |     |
| Total| 47        |            |                     |     |

Mann-Whitney U-test was used in order to see whether the pre-test scores obtained from the individual competitive and cooperative target orientation samples differed from each other significantly or not (Table 4). In the pre-test scores concerning attitude value, it is seen that the rank mean is 25.63, and rank total is 615.00 in the individual competitive orientation group consisting of 24 students, while in the cooperative target orientation group of 23 students, rank mean is 22.30 and rank total is 513.00. Mann-Whitney U-test value was determined as 237.00 and p value as 0.41. According to this finding, no statistically significant difference was found between the pre-test mean of the competitive target orientation group and the pre-test of the cooperative target orientation group.

Table 3. Mann-Whitney U-Test and Attitude Value Post-Test Statistics of Individual Competitive and Cooperative Target Orientations

| N    | Rank Mean | Rank Total | Mann-Whitney U-test | P   |
|------|-----------|------------|---------------------|-----|
| 24   | 24.19     | 580.50     | 271.50              | 0.92|
| 23   | 23.80     | 547.50     |                     |     |
| Total| 47        |            |                     |     |

Mann-Whitney U-test was used to see whether the post-test scores obtained from the individual competitive and cooperative target orientation samples differed from each other significantly or not (Table 3). In the post-test scores concerning attitude value, it is seen that the rank mean is 24.19, and rank total is 580.50 in the individual competitive orienta-
A group consisting of 24 students, while in the cooperative target orientation group of 23 students, rank mean is 23.80 and rank total is 547.50. Mann-Whitney U-test value was determined as 271.50 and p value as 0.92. According to this finding, no statistically significant difference was found between the post-test mean of the competitive target orientation group and the post-test of the cooperative target orientation group.

Table 4. Wilcoxon Signed-Rank Test and Attitude Value Pre and Post Test Statistics of Individual Competitive Target Orientation

|                          | n  | Rank Mean | Rank Total | Z    | P   |
|--------------------------|----|-----------|------------|------|-----|
| Individual competitive target orientation group pre test-post test |    |           |            |      |     |
| Negative Rank            | 9  | 11.78     | 106.00     | -0.67| 0.51|
| Positive rank            | 13 | 11.31     | 147.00     |      |     |
| Equal                    | 2  |           |            |      |     |
| Total                    | 24 |           |            |      |     |

Wilcoxon signed-rank test was used to examine the significance of the difference between pre and post test scores of the individual competitive target orientation. In the examination of the test statistics concerning the Wilcoxon Signed-rank test of the individual competitive target orientation (Table 4), it is seen that 9 individuals on the negative rank have a rank mean of 11.78 and a rank total of 106.00. On the positive rank, on the other hand, 13 individuals have a rank mean of 11.31 and a rank total of 147.00. Accordingly, it was determined that there was no significant difference between the pre and post test tests of the individual competitive target orientation employed in physical education classes (Table 4).

Table 5. Wilcoxon Signed-Rank Test and Attitude Value Pre and Post Test Statistics of Cooperative Target Orientation

|                          | N  | Rank mean | Rank total | Z    | P   |
|--------------------------|----|-----------|------------|------|-----|
| Cooperative target orientation group pre test-post test |    |           |            |      |     |
| Negative Rank            | 7  | 12.14     | 85.00      | -1.06| 0.29|
| Positive rank            | 14 | 10.43     | 146.00     |      |     |
| Equal                    | 2  |           |            |      |     |
| Total                    | 23 |           |            |      |     |
Wilcoxon signed-rank test was used to examine the significance of the difference between pre and post test scores of the cooperative target orientation. In the examination of the test statistics concerning the Wilcoxon Signed-rank test of the cooperative target orientation (Table 5), it is seen that 7 individuals on the negative rank have a rank mean of 12.14 and a rank total of 85.00. On the positive rank, on the other hand, 14 individuals have a rank mean of 10.43 and a rank total of 146.00. Accordingly, it was determined that there was no significant difference between the pre and post test tests of the cooperative target orientation employed in physical education classes (Table 5).

DISCUSSION

Education is an indispensible requirement for societies. The common aim of education is to help growing up children and teenagers to adapt the society in a healthy and efficient way (Varış, 1994). In this respect, it is extremely important to develop physical education classes, which are an inseparable part of general education, in line with the expectations of the individual and society (Sunay, 1996). In the Control and Fight against Obesity Program carried out by the Turkish Ministry of Health in 2010, it is reported that obesity rate has increased in Turkey. A sedentary lifestyle is stated to be among the most important reasons behind this. One of the methods that can be used to improve this attitude towards sport is to increase participation into sports activities. Increasing participation can only be possible through developing positive attitudes towards sports activities.

A sedentary life is not a Turkey-specific problem only; but similar problems are faced in many countries around the world. In the USA, the cost of sedentary lifestyle in the healthcare sector is approaching 75 billion dollars; Canada allocated 6% of its healthcare budget to solve this problem (Berggren, 2005). In this respect, governments are expected to come up with solutions to eliminate these problems. Educational policies applied particularly in elementary education, which is the first stage of formal education of human beings, play a significant role in the formation of positive attitudes towards sports.

In this section of our study, the effects of individual and cooperative target orientations used in planning physical education classes in the 2nd level elementary education on students’ attitudes towards physical education classes were tried to be examined and comments were intended by comparing the obtained results with previous studies on the topic.

In the comparison of the pre and post tests of the individual target orientation used in physical education classes, no significant dif-
ference was found between attitude levels towards physical education classes. Abakay (2007) examined the effects of cooperative learning and individual competitive target orientations on learning levels in physical education classes. The comparison of the pre and post tests of the individual competitive target orientation showed a slight increase in achievement. In our study, the short time period of the study (6 weeks), and the environmental factors like the attitudes of teachers towards students and students’ attitudes towards one another may have caused the non-significant difference between pre and post tests.

In the comparison of the pre and post tests of the cooperative target orientation used in physical education classes, no significant difference was found between attitude levels towards physical education classes. This finding is similar to the findings obtained from the study conducted by Gülay (2008) on the effects of cooperative games in the 9th grade physical education classes on students’ social skill levels and their attitudes towards physical education classes. In several studies carried out in different areas other than physical education; it was seen that attitude towards classes could be increased by using cooperative method in physics classes (Eke, 2010; Özdemirli, 2011; Johnson et al 1981), geography classes (Aydın, 2009), social sciences classes (Çelebi, 2006; Özkümüş, 2010) and math classes (Özdemirli, 2011). It seems that students feel more comfortable in activities, they deal with different materials about the subject, they have more fun and enjoy the classes better, and they learn more easily and remember what they learn better by helping one another with cooperative learning. These positive outcomes affect students’ attitudes towards classes in a positive way. The reason behind the fact that the effects of cooperative target orientation appear to be more positive in other areas may be the difference within the body of physical education classes. Being constantly on the move, putting physical effort and that individual differences come out more in physical education classes may have led to these reasons. The fact that our study period was rather short (6 weeks), that several different branches were present during the practices (5 branches) and environmental factors may well be shown as the factors behind the results obtained from our study.

In the comparison of the pre and post tests of the individual target orientation and cooperative target orientation used in physical education classes, no significant difference was found between the two target orientations in terms of attitude levels towards physical education classes. One possible reason for this may be the effect of environmental factors in education. Teachers, peers, school conditions
and families’ perspectives on sports may have caused this positive level. Whichever method is offered to students, the period they are going through is the first stage of adolescence. During this period, the child attempts to get into more communication with others around and needs to move more. Physical education classes are an important need that can save children from a sedentary life and students from the education process. Since these requirements were applied in both orientations in a planned and programmed way in our study, students may have not perceived the differences between the two orientations completely. In the studies conducted by Sarıtaş (1998), Abakay (2007), Görücü (2007) and Özcan (2009), it was found that individual competitive and cooperative target orientations used in physical education classes affected attitude towards physical education classes positively. With cooperative target orientation, it was seen that students who were used to instruction method and had monotonous classes enjoyed such a difference; negative physical communication and negative verbal interaction decreased with cooperative games and that working as a team helped students reach similar goals such as thinking about and discussing strategies with teammates. These outcomes affected attitude towards physical education classes positively.

**CONCLUSION**

In our study, the effects of classes held with two target orientations on the attitude towards physical education classes were examined. It was found out that classes held with cooperative target orientation and individual competitive target orientation did not affect students’ attitude toward physical education classes. Similarly, no significant difference was found between the two target orientations in terms of improving attitude towards physical education classes.

**Suggestions**

According to the results obtained from the study, the following recommendations can be made;

1) The present study was limited to a time period of 6 weeks. A similar study of a longer time period may reveal different results.

2) Similar studies could be conducted with different age groups. This could present the correlation between age and target orientations.

3) In the start-up phase of the study, choosing a student group with a lower level of attitude towards physical education classes as the study sample may be more effective in determining the efficiency of target orientations.
4) A similar study can be conducted regarding one single branch, instead of several multi-branches. This could make it possible to better interpret the effect of target orientations.

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