



### Views towards Physical Activity Cards and the Effects of Cards on Students' Attitudes

Zekai Usluoglu<sup>1</sup>, A. Dilsad Mirzeoglu<sup>2</sup>

<sup>1</sup> Bülent Ecevit University, School of Physical Education and Sports, Zonguldak, Turkey.

<sup>2</sup> Sakarya University, Faculty of Sport Sciences, Sakarya, Turkey.

zekaiusuoglu@gmail.com

#### Abstract

The aim of this study was to determine the effect of physical activity cards on the attitudes of students and to determine the views of students, parents and teachers regarding the cards. In this study, mixed model including both qualitative and quantitative approach was used. Within this context, pretest-posttest design with control group was used in the quantitative part, and phenomenological research design was used in the qualitative part. 303 students from 5th, 6th and 7th grades of a secondary school in Gökçebeş District of Zonguldak Province participated in this study in 2012-2013 academic year. There were 153 students in experiment group, and 150 students in control group. The quantitative data were gathered by using "Physical Education and Sport Attitude Scale" and questionnaire forms regarding the views of students and parents. The qualitative data were gathered from PE teachers' diaries. The quantitative data were analyzed with percentage, frequency, t test for independent samples and two way repeated measures analysis of variance techniques, and the qualitative data were analyzed with descriptive analysis. When the effect of physical activity cards on students' attitudes towards lessons was analyzed, a significant difference was seen on the main effect of time x group. According to this result, the education received by students in experiment group and control group make a significant difference in countenance the posttest with regard to the level of attitudes before and after the program. On the other hand, it was found that being situated in different groups did not make a significant difference on students' attitude points. Most of the students stated that they liked the lessons, enjoyed having lessons with cards and improved their movement skills, and also having lesson with cards increased their participation. When parents' views were analyzed, most of the parents were aware of the content of cards, and their children started to take interest in sport gradually after these cards had been used. When the views of physical education teachers were analyzed, they specified that the cards increased the participation level of the students.

**Keywords:** Physical activity cards, physical education and sports, views, attitude

## INTRODUCTION

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Every human being needs movement to carry on their life in a healthier and more qualified way. This need is indispensable for them throughout their life. However, when a child gets to school-age, he/she tries to reach different goals while conducting a movement. School physical education courses play an important role in reaching these goals. According to Graham et al. (2004), there are a number of reasons why children need physical education such as doing a regular and healthy physical activity, improving their skills and physical fitness, contributing to their learning abilities in other courses, getting self-discipline, setting a target, developing leadership, cooperation and self-sufficiency, reducing stress and improving peer relationships. Doing regular physical activities or an active life style is proved to have positive effects on people's life. Specialists point out that this course should be regarded as one of the main grounds for students to gain the skill, attitude and knowledge essential to carry on their life in a more active and healthy way (Reed et al., 2007).

The applied curriculum is one of the crucial factors to get the intended efficiency from physical education and sport courses. To reach the intended learning outcomes of this course; game, gymnastics, rhythm and dance activities are practiced particularly for 1<sup>st</sup> - 3<sup>th</sup> grades at primary school, and game, rhythm and dance, sport activities, gymnastics, swimming and outdoor activities are practiced at further grades (Harrison et al., 2001; Kirchner and Fishburne, 1995). At what age and how often these activities will be practiced is closely related to individual's development characteristics (Ministry of National Education, 2006, hereinafter referred to as "MNE").

1-8<sup>th</sup> grades Physical Education curriculum, which was based on constructivism and brought into force in 2006 in Turkey, was prepared with the aim of providing fundamental, specialized, sport related skills, providing physical activities that students can use in their life, gaining emotional and social characteristics and providing active participation in the physical activities which keeps one's life healthy (MNE, 2008). According to the change made in our education system in 2012, 1-8<sup>th</sup> grades curriculum as a whole in the name of primary school was reconstituted as primary school for 1-4<sup>th</sup> grades and secondary school for 5-8<sup>th</sup> grades. According to this change, secondary school Physical Education and Sport course curriculum was prepared and brought into force in 2013-2014 academic year. Along with this curriculum, Physical Activity Cards (PACs) were developed and proposed to be used as teaching aids (MNE, 2012; MNE, 2013).

The aims of the information given and games taught through Physical Activity Cards were to make students love their school, to do activities and play games appropriate for their ages. These cards were called as TOPs cards abroad, and were one of the most efficient aids, which include high quality of physical education and physical activities, and they were produced in order to support the students in teaching departments in England and Scotland, teachers, trainers and educators working at other areas in the community. Torphe (2013) explained TOPs' features with the initial letters of SMILES and accordingly specified that these cards have success, maximum participation, inclusiveness, learning, enjoyment and socializing features. Based on MNE Physical Education and Sport Curriculum, PACs in Turkey were developed with the aim of classroom teachers', physical education teachers', trainers' and sport experts' usage within the scope of International Inspiration Project, and also TOPs cards and their programs inspired the development process. The purpose of the development of these cards was to enrich children's and youth's lives with games, physical education, sport and physical activities. PACs consist of two sets as in the original TOPs cards. The first set of the cards (yellow card group),

which is appropriate for the developmental characteristics of 6-9 years old children (1-3<sup>th</sup> grades), consists of fundamental movement knowledge and skills appearing in primary school game and physical activity course curriculum. In the second set (purple card group), there are cards appropriate for the movement education model of 10-13 years old children (4-8<sup>th</sup> grades), and these cards serve for developing common basic sportive skills which children need to have in the beginning stage of any branches of sports (Harrison et al., 2001).

A great number of articles were published in the countries that TOPs programs were used. In one of these articles, Sabin (1997) gave information about how TOPs cards were used within the curriculum. Roberts et al. (1998) analyzed the pros and cons of TOPs programs. There were several advantages of TOP cards; they were utilizable in physical education, they supported education, they helped teachers to enhance their knowledge and skills by means of received development courses. However, a lot of time needed to train teacher groups, the inadequate number of existing entrepreneurs and how they would be integrated to schools, changing the sports bags and its effect on long-term plans of the schools were accepted as disadvantages of the TOPs cards. Spode (1997) analyzed the effects of TOP game and TOP sport in eight primary schools in West Midland and pointed out that TOPs programs generally had positive effects on teaching games in these schools.

Accordingly, Hunt (1998) stated that TOPs programs had positive effects on teaching game in the schools chosen by him. Additionally, Lawrence (2003) stated that students showed a positive attitude towards physical education after TOPs training and it affected them to increase their participation in physical education course (Harris et al., 2007). In addition to these studies; Harris et al. (2007) stated that TOPs for primary schools were really suitable for the purpose of supporting primary school physical education teachers, contributing to their professional development, supporting non-expert physical education teachers in teaching physical education courses, backing up students to learn the scope of curriculum, improving the standards of physical education, increasing the level of teacher's self-confidence and enhancing their knowledge to improve physical education standard, increasing the attendance of the children in physical education and providing more enjoyable physical activity and sport facilities. Furthermore, İrez et al. (2013) reported that these cards were highly utilizable materials for skill development in physical education. In the other studies of Harris et al. (2011), they stated teachers were of the view that TOPs formed a basis for physical activities for their courses and they often used them as they were useful to enhance students self-learning.

In the light of the information above, new studies about the program are needed as PACs, developed for the purpose of supporting primary and secondary school physical education course in Turkey, were rather a new application. Therefore, the aim of this study was to analyze the effect of these cards on the attitudes of students towards physical education and sport course by determining the views of students, parents and teachers about PACs used in secondary school physical education and sport course.

## **METHODS**

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Mixed model including both quantitative and qualitative research models was used in this study. The pre-test and post-test with control group from true experimental design was used for the quantitative aspects of the study (Karasar, 2011). Furthermore, phenomenology design was used to assess the teacher's view about PACs in qualitative research design (Yıldırım and Şimşek, 2005).

## Participants

Students: 303 students (146 girls and 157 boys) studying at 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grades of a secondary school situated in Gökçeşey District of Zonguldak Province in the 2012-2013 academic year spring semester participated in the study. Study was conducted through 6 classes (3 experiment group and 3 control group). The attitude scale scores towards physical education and sport course, classroom sizes, the number of girls and boys in the class were used to equalize the student numbers of experiment and control group. Percentage and frequency distribution of experiment and control group students in the study were given in Table 1.

**Table 1.** Percentage and frequency of the students in the study

Grade	Gender	Experiment Group		Control Group		Total		F
		f	%	f	%	f	%	
5	Girl	21	6.93	15	4.95	36	11.88	86
	Boy	27	8.91	23	7.59	50	16.50	
6	Girl	27	8.91	25	8.25	52	17.16	106
	Boy	24	7.92	30	9.90	54	17.82	
7	Girl	29	9.57	29	9.57	58	19.14	111
	Boy	25	8.25	28	9.24	53	17.49	
TOTAL	Girl	77	25.4	69	22.8	146	48.18	303
	Boy	76	25.08	81	26.7	157	51.82	

Independent samples t-test was performed to pre-test results obtained from physical education and sport course attitude scale given to 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grades to equalize experiment and control group number and the result of the related test was given in Table 2.

**Table 2.** Comparison of pre-test attitude scores of students within the study

Groups	N	$\bar{X}$	Sd	SD	t
Experiment Group	153	4.02	.68	301	.570
Control Group	150	3.98	.71		

Table 2 showed that, there was no significant difference between pre-test scores of the students in experiment and control group towards physical education ( $t_{(301)} = .570, p = .57$ ). According to this result, it can be said that the attitude scores of the students in both groups towards physical education and sport course were similar in the beginning of this study. Students' views about PACs were received from 153 students (77 girls, 76 boys) in experiment group.

Parents: Parents' views about PACs used in Physical Education and Sport course were received as well. For this reason, 135 parents (34.1 % 5<sup>th</sup> grade, 29.6 % of 6<sup>th</sup> and 36.3 % of 7<sup>th</sup>) of 153 students in experiment group participated in the study voluntarily.

Physical education and sport teachers: Two physical education teachers using PACs in their courses were asked for their views about PACs and its applications. Both of them were male physical education teachers and carrying on their professional life teaching at the secondary school level. One

of the physical education teachers was the researcher of this study and 31 years old with 6-year physical education teaching experience. The other physical education teacher was 32 years old with 8-year physical education teaching experience. Researcher of this study received education from a PACs educator specialist in Turkey about how PACs would be used in Physical Education courses. He transferred this training to the other teacher in the school and upon such a short practice period he gave essential feedbacks to other teacher regarding PACs usage in courses.

#### Data Collection Tools

##### Attitude scale towards physical education and sport

Attitude Scale towards Physical Education and Sport developed by Demirhan and Altay (2001) was utilized in order to determine students' attitudes towards physical education and sport course. This scale consists of 24 items, 12 of which are positive (items 6, 7, 9, 10, 12, 14, 15, 16, 17, 18, 21 and 23), the rest is negative (items 1, 2, 3, 4, 5, 8, 11, 13, 19, 20, 22, 24). It is a 5-Likert Type scale. When pointing the scale, positive items were evaluated as 5- Strongly agree, 1- Strongly disagree, negative items were evaluated as 1- Strongly agree, 5- Strongly disagree. Cronbach Alpha internal consistency coefficient was calculated as  $\alpha=0.93$  by Demirhan and Altay (2001), and validity coefficient was calculated as 0.83 (Gülay, 2008).

##### View forms

Students view form regarding PACs consisted of 2 sections. In the first section, there were demographical features of the students such as grade, gender, age etc. In the second section, there were 14 questions developed by the researchers to determine students' views regarding PACs with 3 elective answers (3=yes, 2= neutral, 1= no). Parents view form regarding PACs consisted of 2 sections. In the first section, there were demographical features of the parents such as gender, occupation and age. In the second section, there were 11 questions developed by the researchers to determine parents' views regarding PACs with 3 elective answers (3=yes, 2= neutral, 1= no). While the questionnaire was being prepared, literature review was made and three academicians, who are expert on physical education and sport teaching, were asked for their opinion, and required arrangements were made upon their views. Also, in order to provide content validity while preparing student and parent view forms, two curriculum development and instruction specialists and an assessment and evaluation specialist were asked for their opinions (Tavşancıl, 2002).

##### Teacher diaries

Physical education teachers' views comprised the qualitative aspect of the study. Physical education teachers kept structured diaries to gather teachers' views about PACs during the study. 14 questions were presented in these diaries and after each course, which they taught with the instrument of PACs, they were asked to answer these questions in order to determine their views regarding the way they taught the course, student participation and classroom environment. Additionally, within the scope of this study, physical education teachers observed the courses regarding PACs applied to experiment groups. One of the physical education teachers was the researcher himself and both of them took part in the study as participant and observer which supported the reliability of the study.

##### Procedure

Ethics committee report was approved and required permissions were requested respectively. After that, the information about the study and the program was given to the principal of the school and then attitude scale towards physical education and sport lesson was applied to all 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grades

students as a pre-test in order to determine the experiment and control groups. After the statistical process, experiment and control groups were determined.

During this process, all the daily plans for both groups were prepared and the researcher himself and the other physical education teacher taught their courses with using PACs for 2 course hours (80 minutes) a week during 12 weeks. 5<sup>th</sup> grade experiment group students performed activities and games which are designed to develop fundamental movement skills (locomotion, balancing, manipulative and combined movements) and of yellow card groups during 12 weeks. 6<sup>th</sup> and 7<sup>th</sup> grades students were applied yellow card groups for the warm-up phase of the course; offense games, throwing and hitting games, net and racket games and active participation games were presented to them during the main phase of the course. Daily plans without PACs were used in control groups. Within that period, students in experiment group were asked for their opinions and they filled student view forms at the end of study. After 12 weeks, attitude scale towards physical education and sport course was applied to both experiment and control groups as a post-test. Parents also filled a parent view form at the end of the study. Accordingly, both physical education teachers kept diaries about their experience with PACs after each courses.

#### Data Analysis

The descriptive analysis method was used to analyze the qualitative data obtained through the study. Dairies kept by two teachers were computerized by researcher himself. After that, the subjects in common were transformed into short sentences and put into code. Coding was classified as themes overlapping one another by researcher and the faculty at qualitative research methods.

The descriptive statistics, independent samples t-test and two factor (Time: pre-test, post-test / Group: experiment-control) repeated measure analysis of variance were used to analyze the students' score of attitudes towards physical education and sport lesson. Significance level in the study was determined as 0.05. Percentage and frequency were used for the views of parents and students.

## RESULTS

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#### Findings about the views of the students

Great majority of 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students in the study expressed their opinion in such a way that taking courses with PACs made differences in physical education and sport and they enjoyed them. They also added that PACs increased their attendance in the courses. More than half of the students stated that they did not have difficulty in practicing the cards, and cards led them to think more during the course. Moreover, taking courses with PACs provided them to be in cooperation with their mates, and PACs increased their self-confidence and made it more enjoyable (Table 3). According to these results, all of the students stated that physical education and sport courses with PACs had plenty of positive effects.

#### Findings about the views of the parents

When views of the parents participated voluntarily in the study were analyzed, majority of the parents stated that they were aware of the methods and content of the PACs used in physical education and sport classes since their children told them about physical education and sport course at home. PACs were used in the courses supported education and teaching, and courses with PACs changed their children's interest in the course positively. After the cards had been applied in the course their children started to become eager to physical education and sport. Furthermore, courses with PACs

contributed to their children's physical development, and PACs provided opportunities to their children to express themselves much better (Table 4).

#### Findings about the views of the teacher

Physical education and sport teachers using PACs in their courses stated that most of the cards were appropriate for students' levels, and students understood the cards easily. Majority of the students attended the course with PACs. Material usage in Physical Education and Sport course was great, and almost all of the students enjoyed the course and they also attended. Most of them produced ideas about the games and activities, but they sometimes had difficulty in producing ideas due to inadequate time. Moreover, most of them were respectful and they generally obeyed security precautions.



**Table 3.** 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students' views about PACs

Questions	5 <sup>th</sup> Grade Students						6 <sup>th</sup> Grade Students						7 <sup>th</sup> Grade Students					
	Yes		Neutral		No		Yes		Neutral		No		Yes		Neutral		No	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1) In your opinion are there any changes in the way Physical Education and Sport courses are presented?	37	77.1	5	10.4	6	12.5	35	68.6	4	7.8	12	23.5	38	68.6	8	14.8	8	14.8
2) Did you like taking Physical Education and Sport courses with PACs?	28	58.3	9	18.8	11	22.9	37	72.5	11	21.6	3	5.9	40	74.1	11	20.4	3	5.6
3) Did taking courses with PACs increase your attendance?	29	60.4	16	33.3	3	6.3	33	64.7	13	25.5	5	9.8	44	81.5	8	14.8	2	3.7
4) Do you think taking courses with PACs is useful?	37	77.1	7	14.6	4	8.3	41	80.4	9	17.6	1	2.0	43	79.6	10	18.5	1	1.9
5) Did you like taking courses with PACs?	27	56.3	11	22.9	10	20.8	38	74.5	9	17.6	4	7.8	39	72.2	11	20.4	4	7.4
6) Do you think PACs have developed your action skills?	32	66.7	14	29.2	2	4.2	35	68.6	13	25.5	3	5.9	37	68.5	16	29.6	1	1.9
7) Did you have difficulty in practicing the games/activities on PACs?	8	16.7	7	14.6	33	68.8	8	15.7	8	15.7	35	68.6	13	24.1	14	25.9	27	50
8) Did the PACs canalized you to think?	18	37.5	20	41.7	10	20.8	33	64.7	12	23.5	6	11.8	28	51.9	14	25.9	12	22.2
9) Would you like to take all of your Physical Education and Sport courses with PACs?	17	35.4	12	25	19	39.6	17	33.3	22	43.1	12	23.5	22	40.7	13	24.1	19	35.2
10) Did taking courses with PACs provide you to cooperate?	30	62.5	13	27.1	5	10.4	41	80.4	7	13.7	3	5.9	43	79.6	9	16.7	2	3.7
11) Would you like to use the PACs in different environments? (home, street and etc.)	18	37.5	17	35.4	13	27.1	21	41.2	10	19.6	20	39.2	32	59.3	13	24.1	9	16.7
12) Did having a course with PACs increase your self-confidence?	36	70.6	10	19.6	5	9.8	35	68.6	13	25.5	3	5.9	23	42.6	27	50	4	7.4
13) Did having a course with PACs make it more enjoyable?	27	56.3	10	20.8	11	22.9	34	66.7	11	21.6	6	11.8	33	61.1	19	35.2	2	3.7
14) In your opinion did PACs manage the whole class to attend in the course?	27	56.3	13	27.1	8	16.7	24	47.1	21	41.2	6	11.8	35	64.8	13	24.1	6	11.1



**Table 4.** Views of 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students' parents about PACs

Questions	5 <sup>th</sup> Grade Students' Parents						6 <sup>th</sup> Grade Students' Parents						7 <sup>th</sup> Grade Students' Parents					
	Yes		Neutral		No		Yes		Neutral		No		Yes		Neutral		No	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
1) Are you aware of methods used in Physical Education and Sport courses that your children took?	22	47.8	7	15.2	17	37	23	57.5	2	5	15	37.5	22	44.9	2	4.1	25	51
2) Are you aware of the content of PACs used in Physical Education and Sport courses that your children took?	27	58.7	4	8.7	15	32.6	21	52.5	6	15	13	32.5	21	42.9	6	12.2	22	44.9
3) Do your children talk to you about Physical Education and Sport courses at home?	32	69.6	5	10.9	9	19.6	31	77.5	3	7.5	6	15	37	75.5	7	14.3	5	10.2
4) In your opinion, does the usage of PACs in Physical Education and Sport courses support education and teaching?	21	45.7	18	39.1	7	15.2	23	57.5	12	30	5	12.5	32	65.3	12	30.6	2	4.1
5) Did the PACs make Physical Education and Sport course more active?	20	43.5	19	41.3	7	15.2	17	42.5	19	47.5	4	10	23	46.9	18	36.7	8	16.3
6) Did Physical Education and Sport courses with PACs change your children's interest in the course?	24	52.2	9	19.6	13	28.3	25	62.5	10	25	5	12.5	30	61.2	12	24.5	7	14.3
7) Did your children start to become more eager to sport after PACs had been applied in the course?	26	56.5	10	21.7	10	21.7	29	72.5	5	12.5	6	15	27	55.1	14	28.6	8	16.3
8) Did PACs make your children become more active in daily life?	15	32.6	20	43.5	11	23.9	19	47.5	14	35	7	17.5	23	46.9	17	34.7	9	18.4
9) Did Physical Education and Sport course with PACs contribute to your children's physical development?	21	45.7	16	34.8	9	19.6	22	55	15	37.5	3	7.5	27	55.1	13	26.5	9	18.4
10) Did PACs provide your children to express themselves better?	21	25.7	15	32.6	10	21.7	16	40	20	50	4	10	22	44.9	13	26.5	14	28.6
11) Do you want your children's courses to go on to be taught with PACs?	32	69.6	8	17.4	6	13	21	52.5	13	32.5	6	15	28	57.1	17	34.7	4	8.2

According to the views of the teacher using PACs in their courses, PACs provided success, self-management and socializing for students, increased their attendance in the course, and developed their communication skills. PACs were also found as enjoyable and educational. However, they reported the limitations about PACs as follows: teachers were not trained enough about how to practice the cards as they were recently released materials, the fact that students needed to learn from the model that they were used to, a great number of students while practicing PACs in the class, the insufficiency of material, the lack of competitive games (especially in yellow cards), the inconvenience of the place to practice all of the cards, the fact that students with high level of skills came into prominence and that games caused an uproar in time.

Findings about the attitude levels of the students

Attitude levels of the students in experiment and control groups towards Physical Education and Sport course were also analyzed in this study and results can be found in Table 5.

**Table 5.** The results of two factor variance analysis for repeated measure

Sources of Variance	Tip III Sum of Squares	Sd	Average of Squares	F	p	$\eta^2$
Time (Pretest-Posttest)	4730.967	1.000	4730.967	43.882	.000	.127
Group	1361.525	1.000	1361.525	3.834	.051	.031
Time x Group	547.878	1.000	547.878	5.082	.025	.017

When PACs' effect on the attitudes of the students towards Physical Education and Sport was analyzed, a significant difference was found in the main effect of time x group. ( $F_{(1-301)} = 5.082$ ,  $p < 0.05$ ). According to this result, the implementation that experiment and control group students had caused a significant difference in the attitude level towards Physical Education and Sport course before and after the program. Post-test attitude scores of the students in the study were found higher than pre-test attitude scores of them ( $F_{(1-301)} = 43.882$ ,  $p < 0.01$ ). However, no significant difference was found in students' attitude scores between two groups ( $F_{(1-301)} = 3.834$ ,  $p > 0.05$ ).

## DISCUSSION

According to the results of the study, most of the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students stated that having courses with PACs made significant differences on Physical Education and Sport classes, and they enjoyed them and also they added that PACs affected them to participate in the lesson positively. Gülay (2008) reported that teaching Physical Education courses with the games were more attractive, enjoyable, motivating and they increased the attendance in the courses. Spode (1997) emphasized that students felt highly motivated in the courses with TOPs, they participated more in the activities. Likewise, Lawrence (2003) stated that TOPs program increased students' participation in Physical Education courses (cited in Harris et al., 2007). In addition to these views, plenty of the students built consensus on that having courses with PACs was useful and enjoyable and PACs increased their movement skills. Many studies support this result (Hürmeriç, 2003; İrez, 2012). Hürmeriç (2003) stated that students generally acquired skills whenever they were active in Physical Education classes. İrez (2012) reported that skill acquisition of the students increased upon the change in course content after PACs were applied, and also he added that students enjoyed the courses.

Nearly half of the parents of 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students were noted that they were aware of the methods and PACs cards used in their children's Physical Education and Sport classes. Most of the parents stated that while they were talking to their children about the courses, they had sufficient knowledge of PACs cards and methods. Besides, the changes in the views of the parents of students from 5<sup>th</sup> to 7<sup>th</sup> grade students were observed in a positive way. That Physical Education course couldn't be taught effectively for various reasons till the 5<sup>th</sup> grade after that students' development level increased and therefore they conveyed these developments easily and rightly. These were among the reasons of this result. However, contrary to the findings obtained in the study, Sheehy (2006) investigated 5<sup>th</sup> grade students' perceptions of Physical Education course and upon the information obtained from their children it was determined that most of the parents had wrong information about Physical Education course program.

Two physical education and sport teachers stated that yellow and purple group PACs were suitable to 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade students but teachers guidance still needed. In the study, Physical education teachers applying PACs in their courses had difficulty in practicing them as they did not take proper and sufficient training for this before. Because PACs usage in physical education and sport courses was a new application in our country, teachers working as a physical education teacher in the schools of Turkey didn't take any training about this program. For this reason, PACs program caused teachers to have difficulty in understanding the cards occasionally, preparing an appropriate daily plan and practicing them. This finding of the study was supported by the views of the teachers participating in the studies of Hunt (1998) and Harris et al. (2011). For this reason, classroom teachers, physical education teachers and leaders were trained development courses for TOPs cards original of PACs and the effects of the courses were observed as rather favorable. In the study conducted by Harris et al. (2011), the effects of the training for the teachers about TOPs were experienced especially on non-Physical Education specialist and teachers having restricted teaching experience because TOPs programs have the aims of removing most teachers' deficiencies in guiding basic pedagogic subjects and planning in medium and long term and making evaluation. Furthermore, the views of the physical education teachers in the study about PACs were parallel to previous studies. Torphe (2013) determined PACs features as success, maximum participation, inclusiveness, learning, enjoyment and socializing. Teachers in the study also emphasized PACs' features as success, enjoyment, socializing, highly participation and learning based on their experiences and observations but they were not able to reach inclusive features as they didn't have retarded students in their classes.

Another finding obtained from teachers' views was that most of the yellow and purple cards were enjoyable for all of the students. Teachers also stated that students acted both in group and individually while practicing most of the cards. The results of the studies of Harris et al. (2011), Hunt (1998) and Spode's (1997; cited in Harris et al., 2007) supported the findings of the study.

Attitudes of the students towards Physical Education and Sport course were analyzed in the study. After the analysis, there was a significant difference on the main effect of time x group in the attitude scores towards Physical Education and Sport. According to this result, it can be said that the course conducted in experiment and control group caused a significant difference on the level of attitude towards Physical Education and Sport course before and after the program. Post-test attitude scores of the students increased compared to their pre-test attitude scores. This was an expected and intended result. Because it is expected by the teachers that students need to develop positive attitude towards course no matter how the course is taught or which models they use. The fact the teachers of the students in both experiment and control group were the same teachers and the time of the study might cause this result. On the other hand, it was determined that being in different groups did not cause

significant difference on the attitude scores of the students. There were not many studies to support this result of the study but this finding was supported with the studies of Gülay (2008), Lawrence (2003) and Saritaş (1998).

## **CONCLUSION and SUGGESTIONS**

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As a result of this study, it was observed that using PACs in Physical Education and Sport course created differences for students. They enjoyed the courses with PACs. It increased their participation in courses, provided ease of implementation, led them to think, provided them to act in cooperation, increased self-confidence, and made the course more enjoyable. It was determined that parents had the knowledge of the methods and the content of PACs; children told them about the cards; parents' knowledge about PACs' supporting the courses; PACs increased the children's motivation; the usage of the cards supported the physical development; and PACs helped the children to express themselves better. Physical Education and Sport teachers using PACs in their courses also stated that cards were comprehensible and appropriate for the level of students; they increased participation in courses; material usage was highly accessible; students enjoyed the courses; PACs provided both in group and individual participation; students respected and paid attention to security precautions. The limitations about PACs were as follows: teachers were not trained enough about how to practice the cards as they were recently released materials, the fact that students needed to learn from the model that they were used to, high classroom size while practicing PACs in the class, the insufficiency of material, the lack of competitive games (especially in yellow cards), the lack of appropriate area to practice all of the cards, the fact that students with high level of skills came into prominence and that games caused an uproar in time.

It was understood that the course conducted in experiment and control group caused a significant difference on the attitude level of students towards Physical Education and Sport course before and after the program. On the other hand, no significant difference was seen on the scores of the students in different groups.

However, it should not be forgotten that the findings of the study belong to a level of secondary school. For this reason, this point of the study must be considered while commenting on the results of the study. Accordingly, to get a more reliable result, it is highly suggested that same studies should be applied to different schools with the help of different teachers and to different grades.

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#### *Authors' note*

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