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Effect of Participation in School Sports Teams on Middle School Students' Engagement in School

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Abstract: The aim of this study is to determine the effect of participation in school sports teams of students studying in middle school on their levels of school engagement. The relational screening model was used in the study. The study group of the research consisted of a total of 610 students selected by the random sampling method and studying at middle school level (fifth, sixth, seventh, and eighth grades). For analysis of the data obtained from the participants by means of the 'School Engagement Scale', descriptive statistics were calculated and interpreted with independent samples *t*-test and one-way analysis of variance (ANOVA). Based on the research findings, the mean level of school engagement of the participants was found to be 3.62 ± 0.51 . In terms of the gender variable, a significant difference in favour of female participants was found. With respect to another variable, that of state of participation in school teams, it was determined that as length of participation in school teams increased, mean level of school engagement of the participants also increased. In conclusion, it was determined that participation in school teams made a positive contribution to students' engagement in school, and it is recommended that in order to further increase students' level of school engagement, measures should be taken to ensure students' participation in school teams.

Keywords: school team; school climate; school engagement; school alienation; school abandonment

1. Introduction

The first and most effective social institution that socializes an individual in his or her life is school. Aiming for individuals to acquire designated target behaviors in the desired direction, schools have been designed by societies according to their own educational goals. When creating their education systems, societies, as well as transferring their own cultural values to future generations, aim to cultivate a generation that can adapt to all developments offered by the modern age, that has acquired problem-solving skills, and that can realize itself and be productive. Schools, which bear the responsibility for carrying out specific learning objectives are considered successful according to how well they achieve their social aims.

In parallel with the continual changes and developments of our age, education systems and schools must keep pace with these changes. Only when schools can keep up with the times will they have fully performed their duty. The most important of the factors compelling schools to change may be listed as technological changes, proliferation of information sources, administrative changes, and human resources [1].

The facilities offered by schools may be determinants of their students' behaviors [2]. It is known that just as negative experiences at school may affect students negatively, so may positive experiences affect students in positive ways [3]. School burnout and school alienation, which are caused by negative experiences in school, are important problems of the education process. The individual who leaves school can have many problems, including social, psychological, and economic [4]. They may also face poor quality of life, unemployment social incompatibility, drug use, crime, and suicidal tendencies [5].

One of the ways to cope with these problems is to take measures to increase the students' attachment to the school.

Although a number of definitions of the subject of school engagement have been made, school engagement is generally defined as positive emotions towards school formed by relations with teachers, peers, school administrators, and by means of extracurricular activities [6–10].

School engagement has a multifaceted structure which includes behavioral, affective, and cognitive dimensions [11]. The behavioral dimension includes participation in the academic, sporting and social activities conducted in schools. The affective dimension includes the reactions shown by students towards their peers, teachers, and school. The cognitive dimension includes perceptions of the association between the studies done at school and their future success [12]. In a number of studies, it is reported that connections were found between cognitive engagement and academic performance and goals [11–16].

It is without doubt that school engagement occupies an important place among the most significant factors that determine attainment of the educational goals of nations. There are many indicators of school engagement, such as having positive emotions towards school and education, feeling that one belongs to the school, having positive relations with school staff and other students, participating in extracurricular activities, accepting decisions made, feeling safe at school, and attending the lessons [7].

In studies conducted on school engagement, which is the subject of a good deal of research in the field of education, variables such as its effect on academic success, school abandonment and alienation, students' psychological needs and staff behavior have generally been examined together. In some of these studies [17–19], it is stated that there is a positive relationship between a higher engagement level and academic success and positive attitudes/behaviors. In the studies done by Park, Holloway, Arendtsz, Bempechat and Li [19], it was found that meeting the autonomy, competence, and social relationship needs of students contributed to the development of their engagement. There are studies which state that positive teacher-student relationships and teacher competence at school also affect student engagement [20,21]. Moreover, studies exist which report that the risk of abandoning school is negatively related with school engagement [22,23]. Therefore, student engagement is a phenomenon that needs to be strengthened with the aim of reducing the number of cases of school abandonment, which is a serious problem in education [24,25]. It is reported in the studies conducted that engagement in school has many benefits such as for discipline situations and school attendance in particular. In many of these studies, it is indicated that there is a positive relationship between active participation in various school activities and school engagement, which is an indispensable part of academic success [26–29].

Engagement of students at their schools is in parallel with their sense of belonging to their schools. As their sense of belonging to school increases, their communication in school and the trust they feel towards school also increase [30]. In this context, it is important for studies to be made that will increase sense of belonging to school. In Adelabu's [31] study, it was stated that sense of belonging to school was high in students who took part in both social activities and academic work.

Schools are the first step in socialization for students. In the same way, sports competitions are also accepted as an important means of socialization [32]. School teams provide students with the opportunity to represent their own schools outside school. Being part of such events outside school makes it possible for students to increase their sense of ownership of the organization that they represent and to make themselves feel more like they belong there.

No studies including the effect of participation in school teams on student engagement in educational organizations have been encountered. In this context, the general aim of the study is to discover the nature of the relationship between participation in school sports teams and school engagement. By drawing more attention to the importance of participation in school teams, this study may provide support in the matter of loss of engagement in school and of preventing negative behaviors which can be formed in individuals involved in the education process.

2. Materials and Methods

2.1. Research Model

In this study, the effect of participation in extra-curricular sporting activities on middle school students' engagement in school was researched, and the relational screening model was used as the research model. The relational screening model was considered suitable for this study since it is used for research models that aim to determine the presence or extent of change between two or more variables together. In the study, the questionnaire technique, which is frequently used [33] in the screening method, was utilized as the data collection method.

2.2. Study Group

The study group of the research consisted of a total of 610 students selected by the random sampling method who were studying at 10 middle schools in the central districts of Balikesir and who voluntarily agreed to take part in the study. The demographic information of the participants is shown in Table 1.

Table 1. Descriptive statistics of participants.

	Variables	(N)	F (%)
Gender	Female	265	43.4
	Male	345	56.6
Grade	Fifth grade	127	20.8
	Sixth grade	160	26.2
	Seventh grade	165	27.0
	Eighth grade	158	25.9
State of participation in school teams	No participation	310	50.8
	Participating for one year	163	26.7
	Participating for two years	66	1.8
	Participating for three to four years	71	11.6
Sport Branch	Football	136	22.3
	Basketball	78	12.8
	Volleyball	89	14.6
	Athletics	110	18.0
	Badminton	38	6.2
	Gymnastic	50	8.2
	Orienteering	40	6.6
	Table tennis	32	5.2
	Others	37	6.1
	Total	610	100

2.3. Data Collection Tool

In the research, with the aim of gathering data, a 'personal information form' prepared by the researcher was used to determine certain characteristics of the students. To determine the levels of the students' engagement in school, the 'school engagement scale' developed by Fredricks, Blumenfeld, Friedel, and Paris [34] and adapted into Turkish by Çengel, Totan, and Çöğmen [35] was used.

The questionnaire scale was made up of 19 Likert-type items in three subdimensions—namely the behavioral, affective, and cognitive dimensions. The internal consistency coefficients of the scale are 0.68 for the first factor, 0.80 for the second factor, 0.80 for the third factor, and 0.89 for the whole scale. According to the reliability analysis made for the study, the internal consistency coefficients are 0.60 for the first factor, 0.71 for the second factor, 0.75 for the third factor, and 0.84 for the whole scale. Considering that coefficients of 0.65 and above are regarded as sufficient in studies made regarding reliability [36], it can be seen that the reliability level of the scale and the items it contains are adequate.

2.4. Data Collection Process

So that the study could be conducted, first of all, permission was obtained from the researcher who had adapted the scale into Turkish. Following this, permission was obtained from Balıkesir Provincial Directorate for National Education. Next, the data collection methods used in the study were applied to the participants with the knowledge of the middle school managers and guidance counsellors. Prior to the implementation, the researcher gave information about the aims and importance of the study to the students. In this way, the reliability of the data obtained from the students was attempted to be ensured. It was observed that the students completed the data collection methods in 15–20 minutes. The forms collected by the researcher were checked, and forms filled in incompletely or incorrectly were excluded from the study. For evaluation purposes, valid and acceptable forms were computerized by coding them.

2.5. Data Analysis

The data obtained during the research were analysed using the SPSS programme. For evaluation of the data, while determining the most suitable type of analysis, number of subjects ($n = 610$), whether the data showed normal distribution, and whether the data were homogeneous, were examined. It was seen that the data satisfied parametric test assumptions.

The data were analyzed using descriptive statistical methods, *t*-test and one-way analysis of variance (ANOVA). In order to determine from which groups significant differences originated, Tukey's multiple comparison test was performed. A significance level of ($p < 0.05$) was used for all tests.

3. Results

In this section, the findings obtained from the school engagement scale applied to the participants within the scope of the study and the results of the statistical analyses of the data obtained in line with the aims of the study are presented in Table 2 and explained.

Table 2. T-test results of school engagement scale scores according to the gender variable.

School Engagement Scale	Female ($n = 265$) $\bar{X} \pm Sd$	Male ($n = 345$) $X \pm Sd$	<i>t</i>	<i>p</i>
Behavioral dimension (Bd)	3.24 \pm 0.40	3.25 \pm 0.36	0.33	0.73
Affective dimension (Ad)	3.78 \pm 0.64	3.74 \pm 0.61	0.91	0.35
Cognitive dimension (Cd)	3.87 \pm 0.73	3.67 \pm 0.77	3.31	0.00
Total	3.68 \pm 0.51	3.58 \pm 0.51	2.35	0.00

In the study, the mean and standard deviation scores related to the school engagement levels of the students participating in the research were found to be 3.62 ± 0.51 .

In the study, following the analysis of the participants' school engagement levels according to gender, the mean for female participants was found as (3.68 ± 0.51), while the mean for male participants was found as (3.58 ± 0.51). According to these findings, a significant difference was observed between groups [$t(608) = 2.35, p < 0.05$].

When the research findings for the gender variable were evaluated in the subdimensions of the scale, the highest mean engagement levels were found in the cognitive dimension for females and the affective dimension for males.

Results of the variance analysis (ANOVA) of school engagement levels according to the variable of participation of the students in school teams are given in Table 3.

Table 3. School engagement levels of participants according to the ‘participation in school teams’ variable.

Factor	Division	N	\bar{X}	Sd	F	<i>p</i>
Behavioral dimension (Bd)	No participation	310	3.24	0.37	0.093	0.96
	Participating for one year	163	3.26	0.38		
	Participating for two years	66	3.24	0.41		
	Participating for three or four years	71	3.24	0.35		
	Total	610	3.24	0.38		
Affective dimension (Ad)	No participation	310	3.73	0.62	0.635	0.59
	Participating for one year	163	3.77	0.60		
	Participating for two years	66	3.75	0.75		
	Participating for three or four years	71	3.84	0.56		
	Total	610	3.76	0.62		
Cognitive dimension (Cd)	No participation	310	3.63	0.73	7.21	0.00
	Participating for one year	163	3.82	0.76		
	Participating for two years	66	3.93	0.82		
	Participating for three or four years	71	4.01	0.70		
	Total	610	3.76	0.76		
Total scale	No participation	310	3.56	0.50	3.89	0.00
	Participating for one year	163	3.66	0.50		
	Participating for two years	66	3.69	0.59		
	Participating for three or four years	71	3.75	0.45		
	Total	610	3.62	0.51		

As can be seen in Table 3, a statistically significant difference at $p < 0.05$ level was determined between groups for the scale as a whole. According to the results of the multiple comparison test (post hoc-Tukey) performed to identify the source of this determined difference, the school engagement levels of participants who took no part in school sports teams were found to be lower than those of participants who took part in school sports teams both for the subdimensions of the scale and for the scale as a whole.

The research findings also revealed that in the evaluation made both for the scale as a whole and for its subdimensions, as length of time spent participating in school teams increased, school engagement levels of the participants also increased.

The Pearson correlation indicated that there was a significant positive association between school engagement and state of participation in school teams, ($r(610) = 0.13, p < 0.001$).

4. Discussions

Nowadays, experiences that will lead schools and students to success are subjects frequently researched by education personnel within the framework of education. Among these subjects, implementations that will make students love school, that will connect them to school, and that will prevent them from distancing themselves from school and removing themselves from the education system are especially important. Discussions and interpretations related to educational research aimed at stressing the importance of students’ engagement in school and at determining the effect of participation in school teams on students’ school engagement are presented below.

In this study, the score average of 3.62 ± 0.51 for the school engagement scale applied to the middle school students ($n = 610$) participating in the research indicates that the participating students’ perceptions of school engagement were at a moderate level.

Continuity of education, which is an important problem all over the world, can be ensured by making the necessary educational, political and economic investments. School alienation, which is seen in students who are unhappy in the education environment and who do not feel that they belong to the environment they find themselves in, may cause students to be excluded from the education

system. From this viewpoint, school environments must be organized in a way that makes students feel that they belong to school and makes them feel happy. Environments like these will also contribute to increasing students' engagement in school.

The research findings reveal that in the evaluation of the participants' levels of school engagement according to the gender variable, female students had a higher level of school engagement than male students did. Examination of the field literature shows that there are a number of studies [37–41] carried out in this country and abroad that show parallels with the findings of this study. There are also studies which report that the reason for this finding is the fact that girls reach adolescence and enter different socialization periods earlier than boys do [42]. Moreover, it is known that socially, the strong, active, and free behavioral stereotypes given to male children by their families are factors that makes it more difficult for them to conform to school rules. This situation may be considered as a factor that results in male children experiencing a lower level of school engagement.

According to the study findings for the variable of participation in school teams, it was determined that participants who took part in school teams had a higher level of school engagement when compared to participants who took no part in school teams. Moreover, in the in-depth analysis, it was determined that as length of time spent participating in school teams increased, school engagement levels also increased. It may be stated with this result that participation in school teams and taking part in activities representing the school are a factor in increasing school engagement. Therefore, it is suggested that in order to increase school engagement levels of male students in particular, school teams that can attract the attention of male students should be formed in schools.

It is known from the present study that more participation in school teams is in proportion to being in higher grades. In evaluations related to class level carried out in the field literature, it is determined that as class level increases, school engagement decreases [43]. However, in this study, the fact that school engagement is higher in students in higher grades, who are known to participate more in school teams, reveals once again the effect of participation in school teams.

5. Conclusions

School teams give students the opportunity to form closer relationships with each other and with their teachers, and to develop these relationships. Moreover, they are one of the easiest ways to develop a sense of belonging to school.

Keeping students happy and at ease in the education system may be ensured by an abundance of opportunities for them to express themselves and to develop their skills. School team activities organized within the scope of extracurricular activities make this possible. To ensure participation in activities like these held in schools, cooperation between schools and families can be made.

In conclusion, all types of activities that will ensure students' engagement in school will make a great contribution to the education system. It is recommended that sport be used as a tool on the way to this goal, both for raising healthy individuals and for preventing problems that may be created within the education system.

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