



## THE ADVANTAGES AND DISADVANTAGES OF BLOCK SCHEDULING AS PERCEIVED BY MIDDLE SCHOOL STUDENTS

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### Abstract

Recently, the Turkish educational system has gone through a transition from the 8+4 educational model to the new 4+4+4 system, which has mandated elective courses to be taken by the students increasing number of class hours taken in a week from 30 to 37 hours. This has caused some problems in scheduling of schools in Turkey where double shift schooling is utilized in many schools due to some reasons. The purpose of this research was to examine perceptions of students regarding advantages of block scheduling. 240 students were selected through simple random sampling. The findings revealed that the block-scheduling had many advantages in terms of improvements in student-teacher relationship and teacher methodology, and some disadvantages in terms of attention span, concentration difficulty and basic needs. The perceptions of both the 5<sup>th</sup> grade students and the 8<sup>th</sup> grade students were similar regarding the advantages and disadvantages of the block scheduling.

**Keywords:** Block Scheduling, Student Perceptions, Middle School.

### INTRODUCTION

Formal education, which refers to the planned, systematic and intentional behavior changing process, is provided to the individuals through schools. And all schools have a curriculum which can be simply defined as the planned set of activities. The curriculum, hence, bear in itself the idea of complying with the plan in order to arrive at the intended behavior changes.

When Turkish education system is examined, it is seen that, the Turkish curriculum has been prone to various changes in order to keep up with changes occurring throughout the world in all aspects since 2006. With the recent changes, the Turkish education system has gone through a transition from the 8+4 educational model to the new 4+4+4 system. The first four refer to primary education; the second four refer to middle school education and the third four refer to high school education period.

The new program has been in practice since 2013-2014 academic year and one of the majors changes brought with recent developments is addition of elective courses to the curriculum, which mandated that the students take 36-37 hours of lesson in a week instead of 30 hours of lesson in the past. This has caused some problems in the scheduling of schools in Turkey where double shift schooling is utilized due to various reasons such as inadequacy of schools and large size of student population. A lesson lasts for 40 minutes and a break lasts for 10-20 minutes as mandated by Ministry of National Education (MoNe) (2014), and this duration has been determined by taking students' attention span (Erden, 2001). As a result of inclusion of electives; however, students have had to receive formal education for around six hours a day in the morning, and six hours in the



afternoon by the second shift, therefore this has caused some problems like starting school early in the morning and finishing late in the evening. To solve this problem some schools have had to use block scheduling system which involves extending class periods beyond the traditional 40 to 50 minutes per class session (Huelskamp, 2014). As stated by Cawelti (1994), block schedule refers to a teaching schedule that organizes at least a portion of the school day into larger blocks of time (e.g. more than 60 minutes) to allow greater flexibility for various instructional activities (as cited in Williams, 2011). Theoretically, block scheduling impacts the quality/focus of instruction and improves student achievement. This longer uninterrupted instructional time provides for fewer classes and transitions per day (Calvery, Sheets & Bell, 1998). On the other hand, it is also a challenge for teachers and students to adapt to a new schedule when they have been comfortable teaching and learning the traditional way (Dorwin, 2009). Hence, it bears both advantages and disadvantages as presented in the following paragraphs.

### Literature Review

The findings arrived at through the literature review of research conducted abroad revealed that block scheduling was mainly used in high schools and universities, whereas use of block scheduling in middle schools was rare. This review also revealed that this system had both advantages and disadvantages in terms of achievement, discipline, attendance, and student-teacher relationships as presented in the following paragraphs.

Cheryl and O'Connell (1997) examined rural high school students' perceptions of block scheduling. The questions examined stress from both types of scheduling, changes in teachers' instructional methods, changes in student-teacher relationships, changes in homework, changes in classroom atmosphere, and changes in their attendance and perceptions of the school in general. During the third year of a block scheduling program, juniors and seniors, who had experienced both traditional and block schedules, completed surveys that asked for their perceptions of scheduling and its effects on them before and after block scheduling. Students also gave their opinions about the benefits and problems of block scheduling. Results indicated that students saw little difference in amounts of homework. They considered the longer classes boring because there were no breaks. They saw a slight increase in class discussions and group projects in block scheduled classes. Students considered teachers responsive to their academic needs both before and after block scheduling. They reported traditionally scheduled classes were more chaotic than block scheduled classes. Block scheduling influenced students' decisions to attend school because it increased the amount of material covered each day. Students felt more stress in school after implementation of block scheduling. Overall, students supported block scheduling.

Calvery, Sheets, and Bell (1998) aimed to compare student perceptions of the block schedule with those of the traditional seven periods in high school. The study described a public school that voted to implement a modified three-block schedule containing two traditional periods. The participants in the study were 200 high-school students, all of whom were switched from a traditional 7-period format to a block schedule. Data collected from surveys were used to compare students' perceptions on various areas related to block-scheduling practices. The surveys consisted of 12 Likert-scaled questions focusing on attitudes and perceptions. The results indicated that the students did not significantly favor the use of block scheduling. It was also recommended that school administrators should carefully study implementation and evaluation policies when initiating block scheduling.

McCoy (1998) examined the effects of block scheduling in one rural public secondary school with a case study utilizing interviews with students, teachers, and administrative /counseling personnel. Results revealed that block scheduling helped students feel more empowered about learning, and teachers reported more empowerment in their instructional role. More assigned homework was being completed, and teachers indicated satisfaction about the demands on their time. Findings indicate that block scheduling basically benefited all students equally, regardless of ability level, attitude toward school, and degree of school success.

Stader and DeSpain (1999) compared block scheduling to traditional schedules in small high schools (schools with fewer than 500 students in grades 9 to 12) through school administrator and teacher perceptions' of the effects of block scheduling on student achievement, school climate, and teacher methodology. The results



indicate that teachers and administrators generally believe block scheduling has improved student achievement. Educators perceived an improvement in the quality of student work, depth of subject matter covered, student retention of material, and an increase in enrollment in advanced courses. However, when teachers were divided by subject area, math/science teachers did not necessarily agree with this general assessment. Overall, it was found that block scheduling improved the teacher-student relationship, stimulated changes in teacher methodology, and improved school climate.

Peterson, Schmidt, Flottmeyer and Weincke (2000) analyzed the implementation of block scheduling in a suburban middle school in Minnesota, and its perceived effectiveness as a catalyst for change. The paper presents several advantages of the block schedule suggesting that this type of scheduling system promotes academic achievement, increases creative approaches to instruction, and improves school climate. And teachers wanted to have a 89 minutes-long lessons for an in-depth analysis of a subject.

Trenta and Newman (2002) conducted a longitudinal study to examine a controversial block-scheduling program in a small, mid-western city. Findings were based on “hard” data only, for example, grade point averages and attendance. Data were collected on 500 students with from 0 to 3 years in the program. The findings were supportive of the block-scheduling program.

In another study, Corley (2003) explored student perceptions of, and attitudes about block scheduling after the fourth year of implementation. The sample included 255 students. According to results, students “agreed” (4 on the scale) on 8 of the first 11 items as being benefits of block scheduling: more total learning time, more time to learn concepts better, more opportunities to work with other students, more individual help from teachers, the ability to finish homework in class more often, better grades, more time to prepare for tests, and liking for the schedule.

Todd (2007) examined the perceptions of selected Atlanta public middle and high school teachers’ perceptions regarding block scheduling; and to examine whether achievement data for selected Atlanta public middle and high schools differed when comparing those schools during the time frame that block scheduling was in place and after block scheduling was discontinued. The findings revealed that middle and high school teachers favored the block schedule over the traditional schedule. Nevertheless, only middle school achievement improved significantly under a traditional schedule.

Williams (2011) aimed to determine the impact block scheduling had on (a) student academic achievement, discipline, and attendance, and (b) administrator, teacher, and student perceptions. The study compared 2005–2010 data from a high school utilizing the A/B block schedule (90 minutes-long class time) and a high school under a traditional schedule, in one suburban school district. The study, which used mixed methods design, yielded the following conclusions: (1) students experienced higher reading scores on the A/B block schedule than the traditional schedule; (2) students experienced higher math scores under the traditional schedule than the A/B block schedule; (3) attendance rates decreased for students under the A/B block schedule and increased for students under the traditional schedule; and (4) discipline referrals decreased at a higher rate for students under the traditional schedule than students under the A/B block schedule. The administrator, teacher, and student perceptions contributed to the following qualitative findings for the study: (1) block scheduling fosters extended learning sessions when properly planned; (2) with fewer transitions discipline issues decreased; (3) attendance schedule was thought to be difficult at first, but attainable, and would alleviate any feelings of being rushed.

Mamon (2012) aimed to examine the perceptions of public secondary school teachers regarding block scheduling and to identify the perceived advantages and disadvantages of using the block schedule in three secondary schools in one suburban school system in Georgia. Perceptions of teachers were collected through a 23-item survey and three focus group discussions. The study concluded that secondary teachers’ perceptions of block scheduling were generally favorable.

As stated by McCoy (1998), time problems in schools have caused educators to look at alternatives to the traditional scheduling and the use of time has been a focus for change in the educational system on education



reform (Trenta & Newman, 2002). When the research on block scheduling was examined, time was found to be the major reason behind adoption of block scheduling in Turkey.

To illustrate, Yalar and Yelken (2009) investigated the perceptions of teachers and students in terms of block scheduling in a high school in Turkey. 109 students participated and their opinions were collected through a questionnaire while data on the opinions of 5 teachers were gathered through interviews. The results revealed that students' overall attitude towards and perceptions of the scheduling were negative, students liked the traditional scheduling better; the only advantage reported by students was more free time after school. The teachers suggested that the duration of the break which was short affected students' learning negatively.

### **Purpose of the Study**

Block scheduling plays an active role in changing curriculum and instructional approaches as teachers adapt to maintain student interest and attention over longer periods of time. Improvements include the integration of various teaching methods, instructional flexibility, and creativity (Calvery, Sheets, & Bell, 1998). Judging by these advantageous influences, it is necessary to find out whether the block scheduling is indeed beneficial in terms of students' perceptions. The purpose of this study; therefore, was to examine the advantages and disadvantages of block scheduling as perceived by the students in this particular middle school, which could guide instructional improvements in this school.

### **Related Research Questions**

1. What are students' perceptions of block scheduling in terms of its advantages and disadvantages?
2. Is there a significant difference in the perceptions of the students regarding advantages and disadvantages of block scheduling with respect to grade?

### **Significance of the Study**

Due to the new education system, a great number schools have gone through transitioning from the traditional schedule to a block schedule due to the reasons mentioned above, and the literature review available to the researcher revealed that there is not much research on this issue in Turkey. The school, in which the researcher works as a teacher, adopted block scheduling, so the students started to have 80 minutes-long classes rather than traditional 40 minutes-long classes. Therefore, there was a need to examine this issue in order to see whether it is favorable according to the perceptions of students, which would help the decision makers in their decision making whether to improve the system with instructional improvements or return to the traditional scheduling. What is more, depending on literature review available to the researcher, there was no research conducted on block scheduling in middle schools in Turkey, the findings of this could help the other schools in similar contexts in deciding whether to adopt block scheduling or not.

## **METHOD**

### **Research Design**

This study utilized survey, a descriptive research, which, according to Best (1970), is concerned with "effects that are being felt" (cited in Cohen, Manion & Morrison, 2007, p. 205). The major reason behind this design is to examine advantages and disadvantages of block scheduling as perceived by middle school students.

### **Population and Sample**

In the school which was using block scheduling, there were 12 classes of 5<sup>th</sup> graders and 12 classes of 8<sup>th</sup> graders in the morning shift. There were about 650 8<sup>th</sup> grade students and 700 5<sup>th</sup> grade students. 20% of students from each class constituted the sample for this study in order to answer the questionnaire, so 10 students from each class were selected. 120 students from 5<sup>th</sup> grade and 120 students from 8<sup>th</sup> grade were selected through simple random sampling in order to ensure the representativeness of the sample as it allows for each and every member of this population to have an equal and independent chance of being selected (Fraenkel, Wallen, & Hyun, 2012).

### Data Collection Instruments

The data collection instrument was developed by the researcher himself after a broad review of the literature. The researcher made a comprehensive examination about the questioned points through the analysis of the related articles, books, journals and theses conducted both abroad and in Turkey. In addition, three focus group interviews with 21 students were conducted so as to obtain in-depth opinions regarding the topics of concern. In other words, the main reason behind conducting focus group interviews was to determine the items of the questionnaire. During the focus group interviews, the researcher aimed to elicit the students' general perceptions of the block scheduling. At last, in accordance with the relevant literature and the focus group interview findings, the researcher designed a self-reported questionnaire. Hence, the data on students' perceptions of block scheduling was gathered through a 20-item questionnaire which was scored using a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Total scores could range from 20 to 100 points. Lower scores indicated disadvantages of block scheduling, while higher scores indicated advantages of block scheduling.

For the scale, an exploratory factor analysis (EFA) was conducted to determine factors of the scale, because it was not known whether there was any relationship among items of the questionnaire (Tabachnick & Fidell, 2013). Before conducting EFA, sample adequacy was checked and it was found to be enough with a sample size of 100 as Hair, Black, Babin and Anderson (2014) advised that sample size should be at least five times of item numbers. Kaiser-Meyer-Olkin (KMO) index value for data set for this study was found to be .87 indicating that there is relationship between items. Tabachnick and Fidell (2013) advised .60 and higher KMO values for good factor analysis as "value close to 1 indicates that patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors" (Field, 2013, p. 965). Bartlett's Test of Sphericity was found to be significant with  $p < .05$ , indicating that "the correlation matrix had significant correlations among at least some of the variables" (Hair et al., 2014, p.102). Multivariate normality was checked with Mardia's test and the results showed that multivariate normality was violated ( $p < .05$ ). Thus, Principal Axis Factoring was used as an extraction method (Costello & Osborne, 2005). In order to clarify and simplify the factor loadings, oblique rotation was implemented (Osborne, 2015). Hence, EFA was conducted, and it initially yielded two factors when the eigenvalues above 1 and scree plot were checked. All the items which were loaded on the factors were  $>.30$ , which can be considered as an acceptable correlation (Field, 2009). Fabrigar, MacCallum, Wegener and Strahan (1999) recommend that including at least four variables for each factor is sufficient. According to the results, loadings of variables of each factor were above .30 and at least four variables were loaded into each factor, so two-factor model was interpreted as sufficiently representative of loadings of items into factors. Factor correlations also showed that there was no relationship between factors, because the correlation between factors was below .32 (Tabachnick & Fidell, 2013). The first factor was named as advantages of block scheduling in terms of the improvements in teacher-student relationship and teacher methodology and the second factor was named as disadvantages of block scheduling in terms of problems encountered. The first 14 items were loaded on factor 1 and the last 6 items were loaded on factor 2.

Internal consistency of the factors was calculated with Cronbach's alpha and the calculated values were .88 for both factor 1 and for factor 2, which shows sufficient reliability according to Nunnally (1978) who recommends that instruments in social sciences should have a Cronbach's alpha of .70 or higher for sufficient reliability. The results also indicated that there was no need to drop any item from either factor, because reliability did not increase if any item was deleted.

### Data Analysis

The data collected through questionnaire was analyzed with Statistical Package for Social Sciences (SPSS) version 22.0. The statistical significance testing was conducted at the alpha level of .05. Descriptive statistics were analyzed through, frequencies, mean and standard deviation. One-way MANOVA was conducted to compare the differences in students' perceptions of block scheduling in terms of its advantages and disadvantages with respect to their grade level.

## FINDINGS

The purpose of this study was to explore perceptions of students about the advantages and disadvantages of block scheduling in a public school in Ankara. 240 questionnaires were delivered and 240 were returned, so response rate was 100%. This response rate was obtained, because the researcher waited for the participants to complete the questionnaires.

The demographic characteristics of the participants are presented in Table 1. Of the participants, there were more females (133) than males (105); the number of participants was equal regarding grade level ( $n=120$ ).

Table 1: Demographic Characteristics of the Participants

	<i>N</i>	%
Male	105	44
Female	133	56
5 <sup>th</sup> grade	120	50
8 <sup>th</sup> grade	120	50

### Findings for the First Research Question

The first research question asked, “*What are students’ perceptions of block scheduling in terms of its advantages and disadvantages?*” In order to answer this question, means and standard deviations were calculated for the 20 items of the *Block Scheduling Scale*. Participants were asked to share whether they strongly agreed (SA), agreed (A), were undecided (UN), disagreed (DA), or strongly disagreed (SDA) with each item. Table 2 and Table 3 provide each item along with the means and standard deviations.

Table 2: Descriptive Analysis of Block Scheduling Scale in Terms of Advantages

Items	SA		A		UN		DA		SDA		<i>M</i>	<i>SD</i>
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%		
1. I learn more	54	24	72	30	92	38	20	8	2	1	3.65	.95
2. The teachers initiate more discussions among students	67	29	81	34	77	32	14	6	1	1	3.83	.92
3. I receive more individual attention from my teachers	55	23	79	33	88	37	18	7	0	0	3.71	.90
4. I participate in learning activities more actively	76	32	66	28	53	22	33	14	12	4	3.67	1.20
5. I have more opportunities to work with other students	52	22	55	23	71	30	45	19	17	6	3.33	1.21
6. I get answers to my questions more	80	33	56	24	34	14	20	8	11	5	3.52	1.37
7. I can ask more questions	105	44	67	28	37	15	20	8	11	5	3.84	1.20
8. I learn subjects in more detail	52	22	59	25	75	31	41	17	13	5	3.98	1.16
9. I have stronger rapport with my teachers	58	24	70	30	47	20	27	11	38	15	3.40	1.16
10. I have more opportunities to work in pairs	64	27	103	43	55	23	12	5	6	2	3.38	1.38



11. The teachers use more activities	56	24	56	24	87	36	32	12	9	4	3.86	.95
12. I have more chance to clarify a question mark about a particular subject	65	27	47	20	83	34	44	18	1	1	3.49	1.10
13. Teachers give more examples for the new subjects	52	22	74	31	92	38	20	8	2	1	3.64	1.94
14. I receive more individual help from my teachers	66	28	84	35	67	28	23	9	0	0	3.80	.95

As seen in Table 2, the highest mean was for item 8, which states that “I learn subjects in more detail” ( $M=3.98$ ,  $SD=1.16$ ). In other words, the most advantageous impact of block scheduling was learning subjects in more detail.

On the other hand, the lowest mean was for item 20 (Table 3), which states that “I get bored towards the end of courses” ( $M=1.66$ ,  $SD=.67$ ). In other words, the students reported that the most disadvantageous impact of block scheduling is boredom felt towards the end of courses.

According to the results as seen in Table 2, for item 1, more than half of the students (54%) reported more learning. For item 2, more than three-fifth of the students (63%) reported more discussion. For item 3, more than half of the students (56%) reported more individual attention from teachers. For item 4, three-fifth of the students (60%) reported more active participation. For item 5, about half of the students (45%) reported more group works. For item 6, about three-fifth of the students (57%) reported they could get answers to their questions more. For item 7, about four-fifth of the students (72%) reported they had the opportunity to ask more questions. For item 8, about half of the students (46%) reported more detailed learning of subjects. For item 9, more than half of the students (54%) reported stronger rapport with teachers. For item 10, about four-fifth of the students (70%) reported more opportunities to work in pairs. For item 11, about half of the students (48%) reported doing more activities. For item 12, about half of the students (47%) reported more chance to clarify a question mark about a particular subject. For item 13, more than half of the students (53%) reported provision of more examples for the new subjects by teachers. For item 14, more than three-fifth of the students (63%) reported more individual help from teachers.

Table 3: Descriptive Analysis of Block Scheduling Scale in Terms of Disadvantages

Items	SA		A		UN		DA		SDA		M	SD
	N	%	N	%	N	%	N	%	N	%		
15. I can satisfy my basic needs like toilette, food and drinks in the breaks	0	0	11	4	64	27	102	43	63	26	2.10	.84
16. I lose my concentration in the last courses of the day	95	40	89	37	43	18	13	5	0	0	1.89	.89
17. I lose my concentration towards the end of courses	108	45	83	34	35	15	14	6	0	0	1.81	.89
18. Despite only three short breaks, I spend sufficient time with my friends	0	0	13	5	36	15	89	37	102	43	1.83	.88
19. I am more attentive in my classes	0	0	13	5	38	16	85	35	104	44	1.83	.89
20. I get bored towards the end of courses	114	48	96	40	20	8	10	4	0	0	1.69	.80

Regarding disadvantages as seen in Table 3, for item 15, more than three-fifth of the students (69%) reported they could not satisfy their basic needs. For item 16, about four-fifth of the students (77%) reported that they lost their concentration in the last courses of the day. For item 17, about four-fifth of the students (79%) reported that they lost their concentration towards the end of courses. For item 18, four-fifth of the students (80%) reported they could not spend sufficient time with their friends. For item 19, four-fifth of the students (79%) reported they were less attentive in their classes. For item 20, more than four-fifth of the students (88%) reported that they got bored towards the end of courses.

### Findings for the Second Research Question

The second research question asked, “*Is there a significant difference in the perceptions of the students regarding advantages and disadvantages of block scheduling with respect to grade?*” In order to see if students’ perceptions varied with respect to grade level, One-way MANOVA analysis was employed. An alpha level of .05 was used in determining statistical significance. The assumption of homogeneity of variance was violated, so Pillai’s Trace test, of which robustness to violations of assumptions was the most as stated by Bray and Maxwell (1985), was used (cited in Field, 2009, p. 594). It was also recommended by Olson (1979) to use Pillai’s Trace rather than Wilks’s Lambda to evaluate multivariate significance when the assumptions could not be met (as cited in Tabachnick & Fidell, 2013).

Table 3: Differences Among Students Regarding Their Perceptions of Advantages and Disadvantages of Block Scheduling With Respect to Grade Level

Perceptions	5 <sup>th</sup> Grades		8 <sup>th</sup> Grades	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Advantages	51.92	7.98	49.65	10.89
Disadvantages	11.39	4.16	10.85	2.74

A One-way MANOVA was conducted in order to determine the impact of grade level on the perceptions of students regarding advantages and disadvantages of block scheduling. Descriptive statistics are displayed in Table 3, which indicated that with a mean of 51.92, 5<sup>th</sup> grade students’ perceptions of advantages of block scheduling (*SD*= 7.98) was higher than 8<sup>th</sup> graders (*M*= 49.65, *SD*= 10.89). Likewise, with a mean of 11.39, 5<sup>th</sup> grade students’ perceptions of disadvantages of block scheduling (*M*= 11.39, *SD*= 4.16) was higher than 8<sup>th</sup> graders (*M*= 10.85, *SD*= 2.74).

As Levene’s Test for Equality of Variances was statistically significant for both subscales ( $p = < .05$ ), thus violating homogeneity of variance, alpha level was adjusted to .04. As shown in Table 4, the MANOVA results indicated that grade level had no significant impact on the students’ perceptions of block scheduling in terms of its advantages and disadvantages [Pillai’s trace= .021,  $F(2, 237) = 2.50$ ,  $p > .04$ ,  $\eta^2 = .02$ ].

Table 4: The Results of MANOVA for the Effect of Grade Level of Students’ Perceptions of Block Scheduling

Effect	Value	<i>F</i>	<i>Hypothesis df</i>	<i>Error df</i>	<i>P</i>	$\eta^2$
Grade level Pillai’s Trace	0.21	2.50	2	237	.08	.02

$p < .04$

## DISCUSSION

The purpose of this paper was to find out perceptions of middle school students regarding the block scheduling implemented at the school where the researcher worked as a teacher. The results showed that the block scheduling had many advantages in terms of students’ overall learning, improvement in teacher methodology due to the uninterrupted instructional time. This finding is consistent with the results of Cheryl and O’Connell (1997), McCoy (1998), Stader and DeSpain (1999), Peterson, Schmidt et al. (2000), Trenta and Newman (2002), Corley (2003), Todd (2007), Williams (2011), and Mamon (2012). On the other hand, this finding is inconsistent with the results of Calvery, Sheets, and Bell (1998), and Yalar and Yelken (2009). This study also found out that there was no difference between perceptions of the 5<sup>th</sup> grade and the 8<sup>th</sup> grade students.





However, there are a number of issues that we have to take into consideration while interpreting and generalizing the results of this study. First of all, the sample of this study composed of the students in the morning shift, the students in the afternoon shift did not take part in this study. In addition, the other stakeholders of education including teachers, administrators and parents were not included in this study.

#### Implications for Practice

Based on these findings, block scheduling had positive effects on teacher-student relationship and teacher methodology, however it had some problems as well, so the following suggestion can be put forward in order to solve the problems encountered:

- The duration of the breaks can be increased so that the students can satisfy their needs.
- The teachers should utilize student-centered instructional methods which can keep students' attention lively so that they won't get bored and/or lose their attention.
- While arranging the weekly schedule, it must be paid attention to the fact that the last courses of the day be among the ones such as music, physical education, arts which do not necessitate much attention.
- A new curriculum adaptable to block scheduling can be developed so that nothing will be left to occur by chance.

#### Implications for Further Research

A large scale study can be conducted that includes all middle schools using block scheduling in Turkey; a more comprehensive study can be conducted that includes students, teachers, administrators, and parents. In addition, the schools which have had to adopt block scheduling should be examined carefully and regularly utilizing a longitudinal research design to find out the long term impact of block scheduling such as student and school discipline, student attendance, student achievement and overall school climate. This is crucial, because the decision makers in Turkey should start to think about the use of block scheduling at least in the areas where block scheduling is inevitable. In this way, a new curriculum adaptable to block scheduling can be developed so that nothing will be left to occur by chance.

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