



## Improving the positive behavior of primary school students with the gamification tool "ClassDojo"

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**Abstract.** The purpose of this study is to determine the impact of the ClassDojo tool on students' attitudes towards English courses and to reveal students' and parents' opinions about how it affects student behavior. This study has been conducted in a village school located in Turkey's Mardin province, and the data has been collected from 30 primary school students and 19 parents. The process related to the attitude variable has been carried out with a pre-test post-test single-group experimental pattern. The data for how ClassDojo affects student behaviors has been obtained by defining related in-class behaviors on the tool weekly as a result of the observation made by the teacher. Furthermore, the views of students and parents regarding ClassDojo and its influence on behavior has been collected through questionnaires consisting of closed-ended items. The data related to attitude has been analyzed with the Wilcoxon Signed Ranks Test and the views have been presented descriptively. The results revealed that ClassDojo affects the students' attitudes towards English course significantly negative. On the other hand, both students and parents expressed positive views about ClassDojo, and it has been demonstrated that this application contributed significantly to students' positive behaviors.

**Keywords:** ClassDojo, gamification, positive behavior, attitude, behavior management

Received: 13.11.2020

Accepted: 05.12.2020

Published: 10.01.2021

### INTRODUCTION

The improvements in technology in the 21st century are proceeding rapidly. In particular, developments in information technologies cause changing needs of education constantly in the information society, as seen in other fields. This transformation affects the technological infrastructure, teacher skills, learners, and many other elements related to education in educational settings. One of these elements is behavior management. Behavior management is defined as the process of shaping student behavior to create a classroom atmosphere where efficient learning takes place (Smart & Igo, 2010). The problems experienced by teachers in this process influence the efficiency of learning. These problems reduce the time spent on significant information and equipment, causing time to be spent on behavior (Smart & Igo, 2010). It is estimated that half of the lecture hours have been spent dealing with these problems due to excessive undesirable behaviors (Marzano, Marzano, & Pickering, 2003). Atkins (2018) argues that with changing student needs and interests in educational settings, behavior management has been the most challenging circumstance for both inexperienced and experienced educators.

Nowadays, problems in behavior management and negative attitude towards the course affect the learning environment negatively, and the undesired behavior of the student reduces the time spent on education. In cases where traditional methods are not sufficient in behavior management, individuals who are responsible for students' development investigate new strategies and methods. In this context, researchers who emphasize effective behavior management have developed different methods and strategies to attract the attention of the student in learning environments, increase learning efficiency, reduce negative behaviors, and make the attitude towards the lessons positive such as using technology in the classroom, using positive reinforcement, designing the classroom environment properly, informing the student about the target, giving the objectives by gamification, providing instant feedback and using digital programs.

Behavioral theories maintain that learning, in other words, behavior modification occurs mostly through conditioning and reinforcement. Chance (1993) argues that the most effective method in behavior management is external rewarding and that a reinforcement-based rewarding system contributes positively to the learning process of students and increases stability. Garcia and Hoang (2005) state that teachers who sometimes do not pay attention to reinforcing students' positive behaviors in the classroom

- reinforcement is effective in students' behavior development - focus on students' undesired behavior and punish but punishment is insufficient in reducing unwanted behavior. They also argued that consistently dealing with problematic students means forgetting students who do not have problems, and this will cause positive behaviors to disappear, and therefore positive reinforcement should be given importance. In this sense, the game and gamification strategies with rules and reward-punishment methods draw attention among the factors that can be used in behavior management.

Many studies are showing that game and gamification also have an important contribution to behavior management. Game is defined as a rule-based system with measurable results, and the players involved in the game to try to influence this result (Juul, 2003). Gamification is the use of game elements to increase the experience and interest of users in non-game content (Domínguez et al., 2013). Bozkurtlar and Samur (2017) revealed that gamification has positive effects on student behavior and reduces undesired behavior by increasing motivation. An example of the effect of gamification on behavior is that the Piano Ladder application increases the habit of people using stairs (Peeters et al., 2013). Buckley and Doyle (2016) made an assessment that gamification enables individuals to reach their goals by understanding that failure is not an end by providing individuals with the opportunity to try, make mistakes and gain experience. Gamification motivates students to increase their commitment to class and rules and offers students instant feedback on class processes (Kapp, 2012). Özkan and Samur (2017), who stated the results of the studies carried out to determine the effect of the gamification method on the motivations of the students in the learning process, revealed that the most used game elements are points, levels, awards, and rosettes. As a result of the study, it has been stated that well-planned teaching design is required for gamification to be effective; otherwise, the specified goal cannot be achieved. It is recommended to make plans that learners can follow their development, continue their development, receive immediate feedback, and support their sense of autonomy and competence (Özkan & Samur, 2017; Taşkın & Çakmak, 2017). Since gamification increases collaboration among students (Glover, 2013), it eases teachers and facilitates their work in the classroom environment (Özkan & Samur, 2017).

Although the problems experienced in classroom management vary, the importance of these problems and their solutions vary according to each teacher. In the research conducted by Atkins (2018) 10 teachers were asked about their problems in classroom management, 7 of the teachers stated that the most difficult thing in the education was the regulation of in-class student behaviors, and 4 of them revealed that they thought to quit the profession due to the problems of the students' negative behaviors.

Advances in technology brought new challenges and opportunities in student and teacher skills. In this context, it is important to make use of Web 2.0 tools, which have increased their role in learning environments in recent years. Teachers said that the most effective way of behavior management, which significantly affected the teaching process, was positive reinforcers, technology use, and gamification, and recommended the ClassDojo tool accordingly (Atkins, 2018).

ClassDojo is an online behavior tracking application that includes game elements in which each student has an avatar, and teachers create a virtual classroom, and student development can be followed by a teacher, student, and parent. When the literature related to ClassDojo is reviewed, it is seen that studies are about the effects of ClassDojo on behavior management, classroom management, academic success, and self-regulation skills and opinions of teachers and students about ClassDojo. In the vast majority of these studies, ClassDojo has been revealed to be a helpful tool for teachers in behavior management. Saeger (2017), in a study with 19 primary school students, which lasted four weeks, revealed that the use of ClassDojo increases students' positive behaviors, significantly reduces their negative behaviors and that students have positive opinions about ClassDojo. In a study conducted by Çetin and Çetin (2018) with 206 secondary school students, ClassDojo was used in a mathematics lesson, and it was seen that the majority of students stated positive opinions about the application in the survey applied to the students at the end of the process. Lacher and Zich (2014) conducted studies with 18 pre-school and 20 first-year students, and with the use of ClassDojo, there was a positive change in student behavior and an increase in in-class participation. Another study has suggested that ClassDojo contributed in terms of discipline, motivation, and class participation (Benhadj, Messaoudi, & Nfissi, 2019). In the study conducted by Garcia and Hoang (2005) with elementary school students, using ClassDojo increased positive behaviors and decreased negative behaviors. Manolev et al. (2019) examined the ClassDojo tool and argued that this application created a culture of performativity, increased, and normalized student supervision in classroom management and created an effective mechanism for behavior control.

ClassDojo is a platform where parents, as well as students and teachers, participate in classroom management. Parents can track students' behavioral scores, class activities, and what kind of behavior they have, anytime and anywhere, via smartphone, computer, or tablet. In a study conducted by Borgonovi and Montt (2012), a questionnaire was applied to investigate the effect of parents, who are actively participated in the educational process, on the academic and general development of students from 13 countries

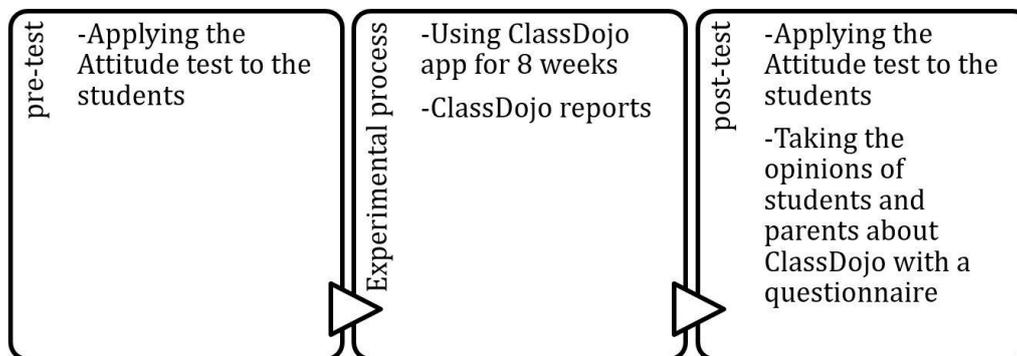
participating in PISA 2009. In the related study, it was concluded that the parents who actively participate in the formal education process are effective in the cognitive, meta-cognitive, social, motivational development, and also learning of their children attending primary school.

In this research, behavioral management was emphasized, and ClassDojo Web 2.0 tool was utilized, and the research was conducted to identify the effect of this tool on student's gaining positive behavior in a gamified education environment and developing a positive attitude towards the course, and providing a positive learning environment in the classroom, and also the impact of the participation of the parents to the behavior change was investigated. In this context, answers to the following research questions were sought:

1. How does ClassDojo affect students' attitudes towards English lessons?
2. What are the students' views on ClassDojo and its impact on the process of gaining positive behavior?
3. What are the parents' views on ClassDojo and the impact of ClassDojo on students' positive attitude?

## METHODS

In this study, it is aimed to reveal the effect of ClassDojo tool on primary school students' attitudes towards English lessons within the scope of the English course. Also, how students affect their behaviors and opinions of the students and parents in terms of the application were taken. Correspondingly, the embedded mixed methods design, in which quantitative and qualitative methods are worked together, was preferred. In embedded research design, it can be used in cases where qualitative data is desired to be answered while answering the secondary research question into quantitative research (Creswell & Plano-Clark, 2017). In this research design, quantitative and qualitative data are collected separately and interpreted within themselves (Creswell, 2013). In the quantitative dimension of the research, pre-test post-test single-group experimental design was used to determine the effect of ClassDojo on students' attitudes towards English lessons. Besides, ClassDojo reports on students' behavior were examined. In the qualitative part, the opinions of students and parents related to ClassDojo were taken. The research process is presented in Figure 1.



**Figure 1.** *Research process*

### Sample

The study was conducted during the spring term of the 2018-2019 academic year at a village school of Mardin province in Turkey. The universe of this research consisted of 30 students and 19 parents; 17 students in the third grade and 13 students in the fourth grade in primary school. A virtual classroom environment was created after parents' approval for the research was obtained. Both students and parents are registered in the system. 16 of the students are female, 14 are male, and their ages range between 8 and 10. The experimental process was carried out by the English teacher, who is a teacher in the relevant primary school and is also the first author of the study. The students were observed in the English course for 8 weeks, 2 hours a week, and the behavior feedbacks were recorded to the ClassDojo application. At the end of the process, the parents were asked for their opinions on ClassDojo by applying a questionnaire. The demographic data of parents and data on ClassDojo are presented in Table 1.

**Table 1.** Parents' demographic data and ClassDojo usage status

Parents' characteristics		f	%
Education level	Literate	2	10,5
	Primary school	9	47,4
	Middle school	4	21,1
	High school	3	15,8
	University	1	5,3
Number of logins weekly	Once	10	52,6
	Twice	6	31,6
	Three times	2	10,5
	Five times	1	5,3
The most liked feature	Seeing the behavior score	9	47,4
	Photo sharing	4	21,1
	Getting points	6	31,6
The least liked feature	None	13	68,4
	Minus points	2	10,5
	Login issues	1	5,3
	No working without Net	1	5,3
	Homework	1	5,3
	Losing points	1	5,3

As can be seen in Table 1, the majority of parents have primary school education. Almost all parents have logged in to ClassDojo at least once a week. The opportunity for students to follow their behavioral scores has been the most liked feature of ClassDojo. The least liked feature is that students get negative points.

### ClassDojo Usage Process

ClassDojo is a web and mobile service for teachers to help them to improve their behavior with their students. Teachers simply sign up on the app and can add their class lists while selecting which "positive behaviors" they want to develop and what "the points" will be given for those behaviors. The Point system is a tool to direct students' behaviors and build a positive attitude towards English class. Teachers can easily reinforce the selected behaviors by giving students feedback points in real-time, using a laptop or mobile device. When feedback is given, a visual and auditory cue is triggered that notifies the student of their progress. These feedback points are automatically stored, analyzed, and collated into progress reports that teachers can share with other teachers, parents, and students. In Figure 2, an example of the avatars selected by the students and the reports regarding the behavior scores they have received during the one-week course is presented.



**Figure 2.** Sample reports and avatars in ClassDojo

Users can run the application in their native language. Classroom groups are created by the teacher. Private application codes are given to students and parents to be able to join the class and take part in behavioral development. The parents can handle and control the development of their children in learning. The material, photos, messages, and videos can be shared easily. ClassDojo is an application, which is created by Sam Chaudhary and Liam Don in 2011, with over 17 million teachers and students using its platform, has officially launched in Canada. This application is used to develop behavior in a class by a teacher. Students are expected to control their classroom atmosphere to stay active (Czikk, 2013). Sam Chaudhary, the co-founder, claimed that "Building positive behaviors is shown to improve a child's academic and lifetime outcomes, our goal is to help teachers address this 'other half' of education that goes beyond test scores, towards helping students build positive behaviors for learning, and helping them become well-rounded individuals" (Czikk, 2013). Passwords were given to students and their parents, necessary explanations were made, consent of the parents was obtained, and they were also provided to follow at home.

### **Data Collection Tools**

Data were collected using ClassDojo behavior reports, closed-ended interview forms (questionnaires), and attitude scale. Before the study, the attitude scale was applied to the students, and their attitudes towards the English course were measured. During the study, students were observed as the first researcher (also a teacher), and their positive behaviors and negative behaviors were defined to ClassDojo for each student. After the study, the attitude scale was applied as a post-test. Also, a questionnaire reflecting the opinions of students and parents about ClassDojo and behavior change was applied.

### **ClassDojo Behavior Reports**

The positive and negative behaviors that the students display weekly are recorded in ClassDojo. Positive behaviors indicate that group work, being prepared for class, attending class, raising hands, being respectful, being helpful, doing homework, being clean, performing tasks, etc. Failure to do the related behaviors was evaluated as negative behavior.

### **Student Questionnaire**

The student survey consists of 32 closed-ended items and three sections. The first 13 items are about general opinions about ClassDojo; 14-21 items reflect opinions about scoring; 22-32 items reflect the opinions regarding the effect of ClassDojo on behavior. "Yes", "No" and "Sometimes" were utilized as the rating scale. The items 1, 7, 8, 13 were taken from the study of Lacher and Zich (2014); the items 2, 3, 4, 5 and 14, 15, 16, 17, 18, 19, 20, 21 were taken from the study of Bozkurtlar and Samur (2017); the items 6, 9, 10, 11 and 12 were taken from Çetin and Çetin (2018), and the last items (22-32) are related to the behaviors defined in ClassDojo and prepared by the researchers.

### **Parent Questionnaire**

The parent questionnaire consists of 16 items to get parents' opinions about ClassDojo and their views on the behavior change they have observed in their children. This questionnaire was prepared and revised by the researchers based on the work of Lacher and Zich (2014) and was rated as "Yes", "No" and "sometimes". In the last week of the study, 19 parents were visited, and the questionnaire was applied at their home.

### **Attitude Scale for Primary School English Course**

The Attitude Scale for Primary School English Lesson developed by Baş (2012) was used in the study. Validity and reliability analyzes of the scale were made and the internal consistency reliability coefficient was found as  $\alpha = .91$ . The scale consists of a total of five dimensions, namely "sensitivity", "consciousness", "importance", "methods and materials" and "Language and culture", and 27 items arranged as 15 positive and 12 negative expressions. Answers to attitude scale are designed as "1: Strongly disagree", "2: Disagree", "3. I am indecisive", "4: I agree", "5: I definitely agree". The scale items used as pre-test and post-test were read to the students at the same time by the teacher, and the students were asked to rate them. Every item was explained by the teacher.

### **Data Analysis**

The data obtained in the context of the first research question examining the effect of ClassDojo on students' attitudes were analyzed with the Wilcoxon Signed Ranks test since it did not meet the assumptions of paired samples t-test. Opinions of students and parents regarding ClassDojo are presented as percentages and frequency tables. The follow-up report of the students' weekly behaviors is presented with a line chart.

## RESULTS

### The Effect of ClassDojo on Students' Attitudes

To examine the effect of the ClassDojo tool on students' attitudes towards English lessons, Wilcoxon Signed Ranks test was used to compare students' pre-test and post-test scores. The findings are presented in Table 2.

**Table 2.** *The effect of ClassDojo on students' attitudes*

Test Average	N	Mean Ranks of	Sum of Ranks	Z	p
Post-test Average - Pre-test Average	Negative Ranks	20	15,33	-2.36	0.02
	Positive Ranks	8	12,44		
	Equity	2			
	Total	30			

The analysis conducted in terms of the effect of ClassDojo on attitude towards English course showed a significant difference in favor of students' pre-test scores ( $Z = -2.36, p < .05$ ). This finding revealed that the English lesson conducted with ClassDojo significantly reduced students' attitudes towards English lessons.

Wilcoxon Signed Ranks test was applied for the sub-dimensions of "importance", "sensitivity" and "methods and materials" of the attitudes of the ClassDojo tool towards the English course and paired sample t-test was utilized for the sub-dimensions of "language" and "consciousness".

**Table 3.** *Importance, sensitivity, method and material dimensions*

Dimensions	Test		N	Mean Ranks of	Sum of Ranks of	Z	p
Importance	Post-test, Pretest	Negative Ranks	18	14,61	263,00	-.63	.53
		Positive Ranks	10	14,30	143,00		
		Equity	2				
		Total	30				
Sensitivity	Post-test, Pretest	Negative Ranks	11	11,64	128,00	-1.37	.17
		Positive Ranks	13	13,23	172,00		
		Equity	6				
		Total	30				
Methods and materials	Post-test, Pretest	Negative Ranks	21	13,60	285,50	-1.89	.06
		Positive Ranks	7	17,21	120,50		
		Equity	2				
		Total	30				

According to Table 3, ClassDojo did not make a significant difference according to the  $p = .05$  significance level in terms of the post-test and pre-test scores of the students' attitude scale sub-dimensions, importance, sensitivity and methods and materials. ( $Z_{\text{significance}} = -0.63, p_{\text{significance}} = 0.53, Z_{\text{sensitivity}} = -1.37, p_{\text{sensitivity}} = 0.17, Z_{\text{method\&material}} = -1.89, p_{\text{method\&material}} = 0.06$ ).

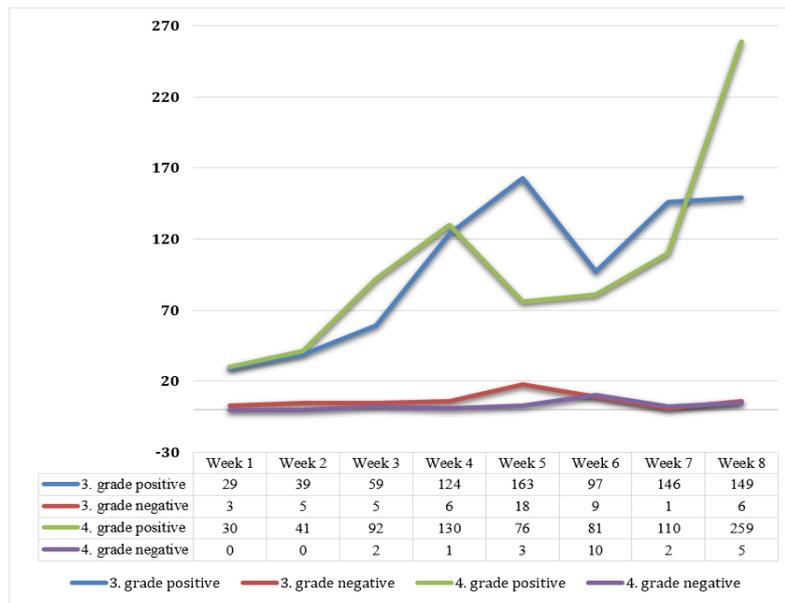
**Table 4.** *According to language and culture and consciousness dimensions*

Dimensions	Test	N	M	SS	t	p
Language and Culture	Post test	30	3,60	0.93	-1.33	0.19
	Pre test	30	3,89	0.77		
Consciousness	Post test	30	3,76	0.91	-0.61	0.55
	Pre test	30	3,86	0.74		

According to Table 4, ClassDojo did not make a significant difference according to the  $p = .05$  significance level in terms of the post-test and pre-test scores that students received from the sub-dimensions of the attitude scale towards the English course and the language and culture and consciousness dimensions. ( $t_{\text{language\&culture}} = -1.33, p_{\text{language\&culture}} = 0.19, t_{\text{consciousness}} = -0.61, p_{\text{consciousness}} = 0.55$ ).

## ClassDojo Enrollments of Students

The changes in students' behavior during the eight-week period in which ClassDojo was used are presented in Figure 3, based on 3rd and 4th grades, with positive and negative.



**Figure 3.** Change in students' behavior in the eight weeks

As seen in Figure 3, when the data about the positive and negative behaviors defined in the ClassDojo environment of the students are analyzed, it is seen that there is a significant increase in the positive behavior of the students week after week. It was observed that there was a small increase in the negative behaviors of third-grade students in the fifth and sixth weeks, then this declined, while an increase in the sixth week was observed in the fourth-grade students but decreased in the following weeks. This shows that the teacher's definition of the behavior scores she determined as a result of the observation she made in the classroom towards the behaviors was effective in the context of the behavior change.

## Students' Views on ClassDojo

As a result of the eight-week ClassDojo experience, students' opinions; General opinions about the application (G), opinions regarding the scoring system (S), and opinions about the effect on behavior (B) were evaluated in three sections and presented in Table 5.

**Table 5.** Students' views on ClassDojo

Views items	Yes	No	Sometimes
G.1. In ClassDojo, it makes me happy for my parents to see my behavioral points about the lesson.	24	5	1
G.2. I love this app because I can follow myself in ClassDojo.	24	2	4
G.3. ClassDojo is fun.	23	2	5
G.4. It makes me excited that my teacher uses ClassDojo in the classroom.	21	1	8
G.5. I like the characters in ClassDojo.	20	3	7
G.6. ClassDojo makes me happy.	19	1	10
G.7. ClassDojo helps me listen to the lesson better.	18	8	4
G.8. I would like ClassDojo to be used in all courses.	17	4	9
G.9. ClassDojo has increased my motivation.	17	3	10
G.10. I like my teacher to evaluate my behavior instantly in ClassDojo.	17	5	8
G.11. It worries me that my teacher spies on my behavior with ClassDojo.	7	17	6
G.12. ClassDojo doesn't interest me.	6	21	3
G.13. ClassDojo is an unnecessary application.	1	27	2
S.1. I like getting points in ClassDojo.	22	5	3
S.2. I try to get more points in ClassDojo since my friends see my points.	17	9	4

S.3. I'm sorry when I can't get points in ClassDojo.	15	9	6
S.4. It makes me sad to get negative points in ClassDojo.	14	12	4
S.5. I try my best not to get negative points in ClassDojo.	13	11	6
S.6. I like that there are negative points in ClassDojo.	7	20	3
S.7. I get angry when I can't score in ClassDojo.	5	23	2
S.8. I get bored with the class when I can't get points in ClassDojo.	3	25	2
B.1. I do the activities given by my teacher to get points in ClassDojo.	27	2	1
B.2. I get respectful in the classroom to get points in ClassDojo.	24	3	3
B.3. I do my homework to get points in ClassDojo.	23	2	5
B.4. I attend the lesson to get points in ClassDojo.	23	4	3
B.5. I take care to keep my environment clean to get points in ClassDojo.	21	2	7
B.6. I listen carefully to my teacher in order not to get negative points in ClassDojo.	21	7	2
B.7. I participate in group work to avoid getting negative points in ClassDojo.	21	6	3
B.8. To get points in ClassDojo, I don't talk unnecessarily in class.	20	5	5
B.9. I help my friends to get points in ClassDojo.	18	5	7
B.10. In ClassDojo, I raise my hand before speaking to avoid getting negative points.	15	7	8
B.11. I get my materials (books, notebooks, etc.) to get points in ClassDojo.	13	12	5
Note. G: General, S: Scores, B: Behavior			

When the general opinions of the students in Table 5 regarding ClassDojo are examined, "ClassDojo is an unnecessary application." "No" (f = 27) response to the statement draws attention. Also, the majority of students were seen that they answer "Yes" for the statements "In ClassDojo, it makes me happy for my parents to see my behavioral points about the lesson." (f = 24), "I love this app because I can follow myself on ClassDojo" (f = 24), "ClassDojo is fun" (f = 23), "It makes me excited that my teacher uses ClassDojo in the classroom." (f = 21). Also, it is noteworthy that the students answered "No" (f = 8) to the phrase "ClassDojo helps me listen to the lesson better" and "Yes" (f = 7) to the expression "My teacher watches over my behavior with ClassDojo". When the general opinions of the students are examined, it is understood that they have a positive perception of ClassDojo for all the items. However, it is seen that there are students who think ClassDojo may cause anxiety to be watched by parents or teachers.

It was seen that students answered "No" to the statements about "getting points in ClassDojo", "I get angry when I cannot get points in ClassDojo" (f = 23) and "I get bored when I don't get points in ClassDojo" (f = 25). It is also remarkable that they answered: "Yes" to "I would like to get points in ClassDojo" (f = 22) and "I try to get more points because my friends see my scores in ClassDojo" (f = 17). However, getting a negative score can also make students sad (f = 14). These results show that the point element is effective in behavior. It is also understood that the score triggers competition. Students make an effort not to get negative points, and this situation can motivate the students. However, when they do not get points, they can also get bored or upset.

When the opinions of students about the effect of ClassDojo on their behavior are examined, the answer "Yes" (f = 27), which is given to the expression "I do the activities given by my teacher to get points in ClassDojo", comes to the fore. Also, "I behave respectfully in class to score in ClassDojo" (f = 24), "I do my homework to score in ClassDojo" (f = 23) and "I attend the class to score in ClassDojo" (f = 23) statements were answered "Yes". These answers show that the student's effort to get positive points in ClassDojo reflects positively on behaviors such as attending activities, acting respectfully, doing homework, and attending classes. The students thought that ClassDojo had a positive effect on cleanliness, focus on the lesson, participation in group work, and solidarity, as well as all these behaviors.

### Parents' Views on ClassDojo

ClassDojo has been used by parents for eight weeks. At the end of this process, the parents of the students were visited, and the opinions of 19 of them were taken through a closed-ended questionnaire. The results of the parents' views are presented in Table 6.

**Table 6.** Parents' views on ClassDojo

Views items	Yes	No	Sometimes
PO1. ClassDojo helps me see my child's progress.	19	0	0
PO2. ClassDojo is a useful application.	19	0	0

PO3. S/he is more willing to do his homework.	18	0	1
PO4. S/he prepares his/her bag without us saying it.	17	1	1
PO5. ClassDojo motivates my child.	17	1	1
PO6. ClassDojo makes my child aware of his/her behavior	15	0	4
PO7. His/her level of studying at home has increased.	13	0	6
PO8. S/he helps us more.	14	1	4
PO9. S/he demonstrates respectful behavior more.	13	1	5
PO10. His/her family communication is affected positively.	12	1	6
PO11. Thanks to ClassDojo, my child's behavior at home has also changed positively.	12	1	6
PO12. Points given by ClassDojo are important for our family.	12	2	5
PO13. ClassDojo should also be used in other courses.	13	5	1
PO14. S/he keeps his/her desk more organized while studying	10	5	4
PO15. ClassDojo is an unnecessary application.	0	19	0
Note. PO: Parent opinion			

When the parents' opinions were examined, it was seen that they had positive opinions about ClassDojo. Parents said that ClassDojo helped them to see their child's development (PO1,  $f = 19$ ), it is a necessary and useful application (PO15,  $f = 19$ ; PO2,  $f = 19$ ), and thanks to this application, their children are more willing to do their homework (PO3,  $f = 18$ ). Besides, most parents thought ClassDojo was more responsible for preparing their school bags. They also argued that this practice motivated children, thanks to this tool, they studied more and were more aware of their behavior. A significant number of parents supported the view that ClassDojo had an impact even in family communication. As a result, it was understood that parents greatly supported the positive opinions about ClassDojo and thought that this tool reflected positively on the behavior and responsibilities of the children.

## DISCUSSION AND CONCLUSIONS

In this study, it was aimed to determine how the ClassDojo tool reflects on the behavior of students in primary school and how it affects their attitudes towards the course. It is also aimed to reveal the opinions of both students and parents regarding ClassDojo. The results obtained were discussed with similar studies in the literature, and suggestions for implementation were made.

In this study, it was revealed that ClassDojo significantly reduced students' attitudes towards English lessons. Also, there was no significant difference between the pre-test and post-test regarding the sub-dimensions (importance, sensitivity, method and material, language and culture, consciousness) related to the attitude. In this study, it has been determined that ClassDojo has a negative effect on students' attitudes towards English lessons. Also, there was no significant difference in the dimensions of the scale (importance, sensitivity, method and material, language and culture, consciousness) between the pre-test post-test. The reason that ClassDojo does not have a positive effect on attitudes because it is a behavior management system. The fact that the behaviors followed with ClassDojo is not directly related to the course may have led to the conclusion that ClassDojo does not positively affect the attitude towards the English course. On the other hand, ClassDojo negatively and significantly affected students' attitudes towards English lessons. This result may be due to the students' focusing on behaviors rather than their course objectives and neglecting content related to the course in this process. Also, as seen in some students' views, being watched by the teacher, and the parents may have caused their attitude towards the lesson to decrease. Besides, the students who failed to fulfill their responsibilities as a result of the application may have raised their concerns about their negative points and the possibility of a negative impact on the course grade. In certain studies, it has been suggested that ClassDojo is an effective tool in terms of participation in class (Benhadj et al., 2019; Lacher & Zich, 2014). However, increasing participation does not mean that the attitude towards the course will be positive. In this process, while teachers utilize ClassDojo, it may be beneficial to emphasize that the system is used only for improving behavior by not correlating the behavior scores with the score of the course. Conducting longitudinal studies focusing on both attitude and academic achievement variables on this subject may also contribute to more clear results.

Another result obtained is the increase in students' positive behavior. As the weeks progressed, a remarkable increase in students' positive behaviors and a decrease in their negative behaviors have been observed. These results show that ClassDojo is an effective tool for gaining positive behavior for primary school students. Similar studies reveal that ClassDojo is an effective tool in the context of behavior

management. Lacher and Zich (2014), working with pre-school and elementary school students, found that ClassDojo caused a positive change in students' behavior. Manolev et al. (2019), on the other hand, revealed that this application is an effective application for behavioral control. Also, the fact that positive behaviors and negative behaviors decreased with the use of ClassDojo in the study conducted by Garcia and Hoang (2005) with primary school students support the findings of our study.

With this study, once again, the efficiency of ClassDojo in the context of behavior management has been revealed. ClassDojo's success in behavior management may be due to its gamification-based design. Because gamification motivates students to increase their commitment to class and rules to provide students with instant feedback on class processes (Kapp, 2012) and, as a result, can be effective on behavior (Peeters et al., 2013). When using ClassDojo with the gamification element, it can be important for students' motivation to be given a chance to compensate for their mistakes by giving appropriate feedback and designing the process accordingly. Thus, students can be provided with the opportunity to test, make mistakes, and gain experience (Buckley & Doyle, 2016).

In this study, students emphasized that ClassDojo is an effective and fun tool. However, it is noteworthy that some students think ClassDojo may also cause anxiety to be watched by parents or teachers. The fact that students find ClassDojo fun indicates that their motivation for it is also high. High motivation may be a result of gamification because gamification increases collaboration among students (Glover, 2013) and reduces unwanted behavior by creating a positive effect on student behavior (Bozkurtlar & Samur, 2017). It is also important to note that some students express that ClassDojo is concerned about surveillance. In this process, both the teacher's and the parents' attitudes play an important role in reducing anxiety. Teachers and parents should make students feel that they are trying to gain positive behaviors by cooperating and supporting the student rather than supervising and controlling the student. However, it is also possible that the anxiety of surveillance will normalize and disappear after a certain time. Indeed, Manolev et al. (2019) suggest that ClassDojo increases and normalizes student oversight in classroom management. It is possible to produce clear results on this subject by experimental studies with different research methods.

When students' opinions about the score element in ClassDojo are examined, it is understood that the score element may affect behavior. The point element can cause competition, and this motivates students. Özkan and Samur (2017) have revealed that the score element is one of the most used game elements. However, when students cannot get points, they may get bored or upset. Students strive to get positive points in ClassDojo, and they are more likely to participate in activities, behave respectfully, do homework, and attend classes. Therefore, when teachers use ClassDojo, it may be more effective to focus on giving plus points instead of minus points. Because Garcia and Hoang (2005) argue that the penalty imposed by teachers focusing on unwanted behavior is insufficient in reducing these behaviors. For this reason, it may be more effective for teachers to use positive behaviors when defining behaviors in ClassDojo (doing homework instead of not doing homework) and give plus points (positive reinforcement) instead of deleting negative points (negative reinforcement). Also, students' opinions show that the effort to get plus points can contribute to being clean, focusing on the lesson, participating in group work, and helping. When the general opinions of the students are examined, it is understood that they have a positive perception of ClassDojo. In the study of Çetin and Çetin (2018), it was observed that the vast majority of students expressed a positive opinion regarding ClassDojo.

When the parents' opinions were examined, it was seen that they found the ClassDojo tool positive. Most parents thought ClassDojo contributed to behave more responsibly about preparing children's school bags. Parents also argued that ClassDojo motivates students to study more with ClassDojo and are more aware of their behavior. Another study has suggested that ClassDojo contributes in terms of discipline and motivation (Benhadj et al., 2019). Parents also thought that ClassDojo had a positive impact on family communication. It is understood that there is a harmony when parents' views are compared with students' views. Both parents and students argue that ClassDojo is an important tool. The view that it has an important contribution to positive behavior is supported by both students and parents. However, the opinions put forward showed that the students might be anxious about being watched by the teacher or their parents.

While the results obtained from this study are evaluated by the readers, some limitations should not be ignored. This study was carried out with students living in the village and having a relatively low economic level. Both parents' opinions and students' opinions can be evaluated in this context. Also, our study was carried out with a single-group experimental pattern. Therefore, it was not possible to compare with the control group. In this context, conducting new researches in schools with different economic and environmental characteristics and at different educational levels can provide clearer results regarding the impact of ClassDojo in the context of behavior management. Also, new experimental research processes can be designed by taking into consideration the suggestions that we put forward in this study.

As a result, it has been observed that ClassDojo contributed to achieving significant gains in the context of behavior management but negatively affected the attitude towards the English course. The most challenging thing for teachers at school and in the classroom is negative student behavior and the difficulties these behaviors create in the context of managing the classroom. It is seen that technology can be effective in this regard in general terms, and ClassDojo is a preferred application in this sense (Atkins, 2018). It is also understood from the views obtained that ClassDojo can contribute positively to the positive behaviors in the family environment as well as the positive behaviors expected from the students in the classroom.

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