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Teaching Method Preferences of Teachers: The Cooperative Teaching Method

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Abstract

Teachers' preferred teaching methods are of the utmost importance. The aim of this qualitative study is to examine 47 primary and secondary-school teachers' (1) teaching method preferences, (2) reasons for group work preferences, and (3) implementation paths for the methods they use. Results show that (1) teachers mostly prefer direct instruction; group work is the second preference; (2) permanent learning, physical conditions, and comprehensive programs are the result of the preference; (3) while teachers are implementing the cooperative method, they implement activities and projects at all levels, form the groups themselves based on students' qualifications, and see the highest success in 4th, 6th, and 11th grades.

Keywords: cooperative teaching; group work; primary education; secondary education

Introduction

One of the primary aims of a school is to provide a qualified learning environment. This environment, the school atmosphere, includes communication among students, teachers, and parents; academic expectations of teachers; students' active participation in the learning process; and student support during this process (Loukas et al., 2006; Gunbayi, 2007; Hoy & Miskel, 2010). School atmosphere has several aspects: the learning aspect includes success, teacher behaviour, peer interaction,

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and secure teaching environments; teaching methods include lecturing, discussion, problem solving, question-answer, demonstration, role-play, sample case, experiment, and cooperative teaching (Sisman, 2002; Ozdemir et al., 2008; Calik & Kurt, 2010; Ozdemir et al., 2010a; Yilmaz & Altinkurt, 2013).

Cooperative teaching involves collaboration with students for a shared purpose (Gelici & Bilgin, 2011; Capar & Tarim, 2015). It plays an important role in children's development, it contributes to their motivation to learn, and it improves their classroom performance. The ways teachers perceive this method and the reasons they apply it are important. It remains popular because each student can achieve his or her goals as other members achieve theirs. Teachers have used this instructional procedure from preschool to graduate levels, in all subject areas and in after-school and non-school education programs. Its foundation is an instructional theory, functionalized with procedures instructors can use, and which research has validated. Studies emphasize the benefits of cooperative learning, in which teachers often use group work to encourage students' cognitive and emotional development (Johnson & Johnson 1990; Cantwell & Andrews, 2002; Simsek et al., 2006; Gülec & Macan, 2014; Capar & Tarim, 2015). Simsek et al. (2006) also claim that the individual feels responsible in cooperative learning environments, and that group members feel connected. Additionally, group-based warm-up activities give students social experience and develop cognitive thinking skills. Educators who can get involved actively in group work encourage student interaction in class, facilitating the learning process and simplifying the procedure (Cooper et al., 1985).

In classroom environments, cooperative learning encourages teachers to practice a constructivist approach. The Turkish education system has used this method since 2001. In fact, in Turkey the approach is still under implementation and researchers are still studying how teachers use it. In addition, this method encourages a change from teacher-centred to student-centred learning, which does not seem easy to achieve in the Turkish school system (Ekiz, 2001). This is partially because classrooms in Turkey are too crowded. Second, teachers are stuck with the heavy burden of the curriculum which they think they can finish on time only by direct instruction. There seems little evidence about teachers' teaching method preferences in the literature. Although some studies (Johnson et al., 2000; Yildirim & Donmez, 2008; Yolcu & Kurtulus, 2010; Bozkurt & Demir, 2013; Sun et al., 2014; Capar & Tarim, 2015) focus on the effects of cooperative teaching and its advantages or weaknesses, researchers need to study teachers' per-

ceptions. Therefore, teachers' preferences for this method and their views about its implementation seem significant. Accordingly, the aim of this article is to reveal which learning methods teachers generally prefer in their classes, in what levels they apply them, and particularly why and how they apply them in their classes.

Methodology

Research Design

The researchers used a qualitative approach (Glaser & Strauss, 1967) to reflect the perspectives of the participants, using a constant comparative method (Merriam, 2009) to identify the themes within and across data sources. The researchers performed content analysis of participants' responses to questions using the inductive technique of open coding (Corbin & Strauss, 2008). Forty-seven full-time primary- and secondary-school teachers (M =16, F = 31) in Istanbul and Edirne in Turkey took part in the study. During face-to-face interviews, the researchers presented follow-up questions or comments as necessary to clarify particular responses. The researchers ensured the anonymity and confidentiality of the participant teachers.

Sample

The researchers used purposeful sampling to select 47 teachers, which enabled the researchers to include the most productive participants. The researchers selected teachers by gender, age, subject, and work experience. Initially, the researchers contacted the participants by mail, by phone, or face to face to give brief information about the scope of the study. Later, the researchers invited the participants for interviews. Their demographic data are in Table 1 below.

Table 1. Profile of participants

Interviewee	Subject	Gender	Age	Graduation Year	Work Experience (Years)
1	English	F	25	2008	3
2	English	F	26	2008	3
3	Mathematics	F	24	2010	2
4	History	M	38	1997	14
5	Classroom	F	29	2005	5
6	Hotel Management and Tourism	M	28	2007	1
7	English	F	35	1998	13
8	English	F	23	2010	1
9	Science	M	36	2002	9
10	Turkish	F	42	1991	20
11	Mathematics	M	24	2011	1
12	Mathematics	F	26	2008	4
13	Chemistry	F	26	2008	3
14	Physics	F	39	1995	15

15	Physics	F	38	1998	13
16	Biology	F	30	2003	7
17	Physics	F	27	2008	4
18	Physics	F	37	1997	13
19	Classroom	F	29	2003	7
20	Primary school	F	28	2006	6
21	Classroom	F	28	2006	6
22	Classroom	F	26	2009	3
23	Paint	F	30	2003	7
24	Social science	F	29	2005	7
25	Science	F	25	2008	4
26	Turkish literature	M	38	1998	10
27	Machine	M	42	1994	22
28	English	F	27	2006	4
29	Turkish literature	M	36	2005	2
30	Technical education	M	36	1999	13
31	Technical education	M	47	1989	22
32	Construction	M	42	1992	13
33	Machine	M	49	1990	21
34	Construction	M	39	1994	16
35	Fashion design	F	25	2009	2
36	English	F	25	2008	4
37	Turkish literature	F	23	2011	1
38	Turkish	M	27	2007	5
39	Biology	M	45	1992	11
40	Mathematics	F	24	2011	1
41	History	M	30	2002	10
42	Mathematics	F	24	2010	2
43	Science	F	23	2010	1
44	Computer Technology	F	27	2010	2
45	Mathematics	F	28	2010	5
46	Mathematics	M	27	2011	2
47	Religious Culture	F	26	2013	2

The age of the participants ranged from 23-49. The majority of the participants taught science, vocational high-school subjects, and English. Overall, the subjects were science and technology, vocational courses, mathematics, English language, classroom teaching, Turkish language and literature, social sciences, pre-school teaching, religious culture, and art. All participants were public-school teachers in Istanbul and Edirne in Turkey.

Instrument and Data Analysis

The researchers used interviews to gather data. Before the interviews, the researchers asked the participants demographic questions about age, sex, major, university graduation years, and total years of teaching experience. In order to capture the participants' perceptions, the researchers formulated five open-ended questions in the light of the research questions (see Appendix). The questions explored their

experience, their teaching method preferences, their reasons for group work, and their implementation paths. All interviews took place in Turkish and later underwent translation into English for analysis. The researchers asked the open-ended questions after obtaining the participants' consent. The researchers compressed and categorized the answers into three themes using both in-case and cross-case analysis.

Findings and Discussion

The data revealed three major themes: (1) teaching method preferences, (2) reasons for these preferences, and (3) features of the cooperative teaching method.

Teaching Method Preferences

Five categories emerged: (a) direct instruction ($N = 14$), (b) cooperative learning ($N = 11$), (c) audio-visual method ($N = 10$), (d) eclectic method ($N = 6$), and (e) interactive method ($N = 4$).

Direct Instruction: Fourteen participants reported using direct instruction, which most teachers preferred. For instance, Teacher 43 stated, "I use the direct instruction method. I get the students to take notes." and Teacher 45 replied as follows:

> There are four times as many mathematics curriculum objectives as there are in the science curriculum. There is enough time to do some exciting activities, but it is not possible to follow whole curriculum in mathematics. It is my fifth year of teaching. I actually know how to teach. It is seen as compulsory to do activities, but we cannot find an opportunity to do so. In this respect, I prefer to teach mathematics in front of the blackboard, or at least I do not give the answer, but help the students to find it.

***Cooperative Teaching Method*:** Eleven participants indicated that they prefer the cooperative teaching method. Specifically, while Teacher 31 said, "I prefer the cooperative teaching method, because the students need to practice what they learn," Teacher 47 expressed her views as follows:

> Some students are not interested in the lessons. They are totally disinterested. It is not even possible to make some successful students participate in the lessons. So I make them group leaders. They seem to be interested in explaining the concepts to their peers. They like to teach. I use them as if a teacher is sitting in the table during the cooperative teaching method.

Audio-Visual Teaching Method: Ten participants out of 47 reported they prefer more than one method. While Teacher 5 prefers pro-

jection and a communicative approach, Teacher 44 generally uses "the demonstration teaching method. Sometimes I use slides. They follow me and apply themselves in computer technology lab lessons."

Multiple Teaching Method: Six participants stated that they use more than one teaching method in their classes. Teacher 13 does not "use a teaching method specifically. It changes according to subject, and student level. Some lessons are experiment-based and in some, modeling is in the foreground." Teacher 46 reflected:

> I was taught many teaching methods . . . and I think all of them are good and have their own advantages . . . If we divide teaching methods in to two, one of them is a subject-based approach, [in which] students are passive. The other one is a student-based approach . . .I support balanced usage. In my undergraduate education, meaningful learning and constructivism got my attention . . . I believe that an individual can teach what he or she knows well and effectively, so I prefer to apply meaningful learning. On the other hand, according to constructivism, children are special and unique, and their schemas can differ. Their experience and background can differ. This kind of thesis is grounded in constructivism, and the experiences of the students can affect effective learning. This thesis has always affected me.

Interactive Teaching Method: Only four teachers preferred the interactive method. Teacher 44, who works in computers and technology, shared her preference:

> It can be very beneficial to use applications . . . to teach Word. On the other hand, verbal explanations may not be sufficient. When explaining the concept of viruses, I ask, "what kind of damage do viruses do to your computers?" The students share their ideas. I can differentiate misconceptions or mistakes they make in demonstrations. For instance, they can imagine viruses as alive.

Reasons for Teaching Method Preferences

In this theme, four categories emerged: (a) permanent learning (N = 14), (b) intensive curriculum (N = 5), (c) physical conditions of schools (N = 4), and (d) number of students (N = 4).

Permanent Learning: Fourteen out of 34 participants reflected that they prefer to make students' learning permanent. For example, Teacher 6 was in favor of the cooperative teaching method: "Because my expertise is in tourism and hotel management catering, I absolutely believe that students should practice in order to provide permanent teaching." On the other hand, Teacher 44 highlighted the importance of audio-visual teaching for permanent learning: "While teaching the

Word program in the computer, it seems that using applications is very beneficial. On the other hand, what I say does not stick, because verbal expressions are not enough to promote permanent learning."

Intensive Curriculum: The majority of the participants stated that the intensive curriculum determines their teaching method preferences. Due to the intensive curriculum, which they have to use as a guide, the teachers tend to use direct instruction. For example, Teacher 18 said "Our curriculum program is very intensive in some grades (9th and 10th). Our courses lose too much time because of the exams, district assignments, and holidays. The program proceeds the fastest with this [direct instruction] method."

Physical Conditions of Schools: Physical conditions such as neatness, classroom temperature, and the presence or absence technological equipment or even desks play an important role in teacher preferences. For example, Teacher 30 stated:

> We use projection because we have the option here, and when we put them in groups, the students work . . . by themselves. We use the visuals with the help of projection. The question and answer method and practice are our class choices already, because ours is technical teaching.

However, Teacher 44 expressed her choice [the cooperative method] as follows;

> I sometimes make my students do group work because most of them do not have a computer in the house. From time to time, the electricity goes off or we are faced with technological breakdowns. In that case, my students and I go back to the classroom and I have to use direct instruction.

Number of Students: Similarly, four out of 34 participants stated that the size of the class determines the teaching method. Some teachers state that their classroom is too crowded, and they cannot apply application-based teaching methods, whereas other teachers reflect that they can easily divide the class into groups. Teacher 11 reflected that "Our classrooms are very crowded and their capacities are insufficient. Accordingly, I think this method [direct instruction] is more useful in crowded classes." However, Teacher 47, who is the religious culture teacher, is in favor of cooperative method, and said:

> When the time is scarce, while following the curriculum, I divided the class into five or six groups. Our topic was bad habits in followers of Islam. For example, alcohol and drug usage. I had thought that if I taught them, it would not stick. I had thought that they could do their own research. Then I delivered the topics. I divided 19 students into four or five

> groups. I prepared a scale and explained the rubric. I mentioned the importance of group cooperation. I asked them to discuss amongst themselves; anyway, they like to express themselves. The students got excited and the lesson seemed to be very effective.

Features of the Cooperative Teaching Method

In this theme, four categories emerged: (a) class levels (N = 15), (b) subjects (N = 15), (c) group formation (N =19), and (d) efficiency in grades (N = 7).

Class Levels: Fifteen out of 47 participant teachers stated that they apply the cooperative teaching method in all classes. However, only 11.60% of the teachers apply it in some grade levels. The justification of one teacher is

> I am in my second year of teaching. I do not like small classes. I believe that larger classes can be more successful. I think the cooperative teaching method can be applied in the 7th or 8th grades, but I do not like it in the 5th or 6th grades. I do not think they grasp its importance.

Subjects: In addition, fifteen of the participants strongly encouraged their students by using the cooperative teaching method during the class activity. Teacher 8 explained: "We always apply group work once a week. Every teacher applies it in every class. We apply it by doing an activity, using constructivism-based open-ended questioning. We are trying to make them discover everything themselves." Teacher 23 indicated

> We apply it when we form the student groups and particularly in pattern classes, as this is the clothing department. We make groups and seat them together. The students get both group marks and individual marks, and they deliver their group work to us.

In addition, Teacher 11 pointed out

> Generally, the classes are for 20 students. We study with four students per group. While sometimes I assign a different activity to each group, sometimes I assign the same activity. First of all, each group works together and then if the work of the groups is different, one member from each group presents the results to the class. If the groups are working on the same project, it may be enough for one or two groups to present. Project work takes time, so I rarely get directly involved.

Group Formation: Most of the teacher participants also explained that they prefer to form the groups during cooperative teaching sessions instead of letting their students form their own groups. In this case, Teacher 9 shared

> I adapt group work according to the students' wishes. The groups are formed by the ones who can get together with friends to form groups more easily. Then, we deliver the topics, they study together, either during the class or after, and then they make their presentations.

Efficiency in Grades: Seven of the participants indicated that cooperative teaching was efficient for 11th-grade students, and five of them indicated that it is beneficial for most 4th-grade students. The sixth grade level also uses the cooperative teaching method according to the teachers. Teacher 5 explained her perspective as follows:

> I have 10 classes. Eight of them are in the 4th grade and I spend most of my time with them. 5th-graders have no basis in English, so they struggle with English. For this reason, 4th-grade classes are more productive. It means that they, as beginners, are better, open to everything and more eager. They learn more easily and study more effectively.

Discussion

The researchers took the teaching method choices into consideration. Teachers prefer direct instruction teaching the most; group work second; modelling and multiple methods third, and last interactive teaching methods such as question and answer. Teachers use these methods to enable permanent learning, and due to the physical conditions of schools, the intensive curriculum, and the number of students.

The literature suggests that teachers usually prefer one teaching method. For instance, Temizoz and Ozgun-Koca (2008) stated that many teachers prefer the question-and-answer method because it helps the students to solve problems after instruction and to remember old material, and it helps to evaluate the class's progress at the end of the course. The research emphasizes a preference for interactive, operational, audio-visual-based teaching methods like direct instruction, mathematical games, riddles, modelling, discussion, creative drama, and concept maps. This seems to match the ranking of teaching methods in this study.

Temizoz (2005) reported that a lack of time and the intensity of instructional program prevent the use of different kinds of teaching approaches and methods. The onset of the intensive curriculum was one of the primary reasons for teaching method preference in this research. Simsek et al. (2012), in their research on science and technology teachers, concluded that teachers prefer question and answer, direct instruction, and problem solving to active methods such as observation and trip and project management. They view direct instruction and question-and-answer methods as attractive because they are cheap and

easy to apply. In another study of 211 classroom teachers in Istanbul, Dogan (2003) concluded that teachers preferred question-and-answer, discussion, modelling, writing, and problem-solving methods. Dogan's study does not agree with our study on this point.

Many studies conclude that teachers prefer direct instruction (Dogru & Aydogdu, 2003; Dogan, 2003; Gomleksiz & Bulut, 2007; Temizoz & Ozgun-Koca, 2008; Gunes et al., 2011; Heasty et al., 2012; Simsek et al., 2012). Onen et al. (2009) concluded that teachers prefer classical methods in classroom activities to discovery learning and group work. However, Yildirim and Donmez (2008) emphasized that teachers prefer group work after drama and question-and-answer methods. Others have concluded that the students below the class average are more active when they study with their classmates in a mixed method such as group work (Senel, 2004; White et al., 2005).

The results of this research suggested that teachers prefer group work highly (81.40%) and try to apply it in their classrooms: they adapt it to every grade; they apply it most to activities, projects, and experiments, and the least during subject reviews and discussions. Teachers have done group work successfully in crowded classrooms, aided by the rise in graphics recently (Sanci & Kilic, 2011). To Johnson and Johnson (2002), the reason for this rise is the applicability of this method to every age level, in every course and subject, at every class level. That teachers form groups consciously according to criteria such as student level supports the results of Felder and Brent (2001) and Igel and Urquhart (2012). Even Yildiz (1999) emphasized that the teacher has to explain academic tasks, work, and procedures to the students besides forming the group.

Teachers see group work as difficult, because some students cannot understand the process and make noise, or because others try to dominate the groups. Furthermore, crowded classrooms and gender differences can cause inefficient class management. In addition, group work may not contribute to the placement test and students may wander off the subject. Accordingly, the disadvantages of group work include one student becoming dominant and doing all the work. In addition, while some are working out how to complete the task, others become passive. Some students are afraid of being left outside the group if others see them as unsuccessful (Slavin, 1999; Igel & Urquhart, 2012).

Most students have insufficient knowledge about how to learn, and some teachers are inefficient in guiding the students in group work. While some students work by themselves, others do not (Igel &

Urquhart, 2012; Korkmaz, 2013). This coincides with the results of this study. Furthermore, according to White et al., (2005), students want to choose the group members themselves, because they may have some problems with their group mates. High achievers state that even though they enjoy the method, some of their friends do not make the same effort as they do, so they fail; middle-level achievers consider themselves successful and enjoy the course; underachievers state that they make an effort and they can ask their friends questions, even if they do not carry out their tasks in the group.

High- and middle-level achievers state that work does not develop their social talents; underachievers state that their social talent improves (Gelici & Bilgin, 2011). For instance, problems between group members, a lack of awareness of the responsibilities, or hiding information from friends (Walker, 2001; White et al., 2005) prevent sharing and positive dependency. Furthermore, Erdamar and Demirel (2010) found that the lack of contribution of some students to group work needs a solution. They emphasized that teaching should depend on instruction, because applying group work too much may cause boredom, and when the class is doing group work, the teacher should help to share tasks among the group.

The results from this study suggested that teachers, who have challenges in applying group work, prefer first to provide motivation and then to change the group form, apply negative reinforcement, avoid group work, and apply punishment respectively in order to cope with these challenges. The advantages of the cooperative learning method include motivating teachers to help students and to encourage group members to learn, while having a common goal can improve the motivation of group members in the same way (Hsiung et al., 2012).

Limitations

This study raises some interesting questions for further research. For instance, it showed that public middle-school teachers can use cooperative teaching methods efficiently when instructing 4th-grade students. Would this be the same for private school teachers, and would it work at other grade levels? Also, this study took place in Istanbul and Edirne, Turkey. Would the results be different or the same with teachers in other cities in Turkey? Although this study has provided evidence for some teachers' teaching method preferences and their application processes, the study depended on a narrative approach; perhaps quantitative approaches could draw more general and significant results. Last, but not least, further research with a larger sample could reach more precise conclusions on the above issues.

Recommendations

The basis of this study is the experience of teachers in Istanbul and Edirne. Interviewing teachers at different schools and in different cities would be worthwhile. Extending this study by interviewing students would widen the point of view on this matter. Cooperative teaching methods may improve the achievements or attitudes of primary- and secondary-school students. Researchers could study the effects of this method on younger children. Teachers should receive induction programs in applying a cooperative teaching and learning process, because teachers need confidence in the cooperative teaching method, helped by in-service-training, to teach their students efficiently. The teachers should also gain experience in challenging the negative side effects of the cooperative teaching method to primary and secondary school students.

Conclusion

The researchers investigated teachers' points of view in various primary and secondary school contexts about the group work (cooperative) method of teaching. The researchers carried out semi-structured interviews with 31 female and 16 male teachers between the ages of 23 and 49 from Istanbul and Edirne, a total of 47 volunteers. They explored teachers' teaching method choices, their reasons, and how teachers applied the group work method. No differences in teachers' teaching method preferences and views about group work between Istanbul and Edirne emerged. Most teachers prefer the direct instruction method; group work came second. Permanent learning, physical conditions, and the intensive curriculum caused this preference. Teachers apply group work to activities and projects, they form the groups themselves in accordance with the students' qualifications, and they get efficient results from the 4th, 6th, and 11th grades.

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Appendix
Interview Questions

Demographic Information:

1. How old are you?
2. From which university and which department did you graduate?
3. What is your branch of teaching?
4. How many years teaching experience do you have?
5. How many students do you have in your classes?

Other Questions:

1. Which teaching method do you prefer the most?
2. Why do you prefer this method?
3. Do you use cooperative teaching method in your lessons?

YES

- Do you apply it in all class levels you teach?
- How do you apply it?
- From which grade levels do you get the most efficiency?