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Collaborative Teaching as a Social form of Organizing Teaching in Primary Education: Views and Attitudes of Greek Teachers

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Abstract

The purpose of this study is to investigate the views and attitudes of active Greek teachers in Primary Education on the implementation of Collaborative Teaching (CT) as a social form of teaching organization regarding the way of cooperation and organization of relationships between students during the teaching and learning process. More specifically, it seeks to investigate whether the application of CT ensures students' active participation in the learning and teaching process, creates friendly relationships between group members, improves students' social skills, limits individuality and engages students' self-expression, and improves students' academic performance compared to traditional teaching where they work individually. The research sample consisted of two hundred and ten Greek teachers. A structured questionnaire was used to conduct the research and collect data. The main findings of the research are summarized as follows: (i) A fairly high percentage of teachers state that the implementation of CT ensures the active participation of students in the learning and teaching process, creates friendly relationships between group members and improves students' social skills; (ii) A high percentage of teachers state that the implementation of CT improves students' academic performance compared to traditional teaching where they work individually.

Keywords: Collaborative Teaching, social form of organization, Primary Education, views, Greek teachers

1. Introduction

The body In recent years, collaborative learning has been the subject of intense academic debate due to the increasing importance of working in teams to solve increasingly challenging problems in modern life and work (Du et al., 2022). In this context, the idea of collaborative work as a method of promoting social and relational skills in the classroom, such as sociability, cooperativeness, responsibility, empathy, tolerance, as well as feelings of self-esteem, usefulness and acceptance, began to develop in the 1970s (Bores - García et al., 2021; Kaldi et al., 2009; Koutrouba & Alexaki, 2016; Mpotsoglou et al., 2007; Ferguson - Patrick, 2022; Tzika et al., 2015). Scientific literature has shown that a child learns to function socially in a school (Santamaría -Villar et al., 2021). The peer group, which is one of the main sources of emotional support in childhood, plays a key role in the development of a student's social competence (Arseneault, 2018; Pozo - Rico et al., 2020; Santamaría - Villar et al., 2021; Wachs et al., 2019). As an extension of this concern, the collaborative group organization of teaching is a widely accepted pedagogical approach in contemporary educational settings since it is considered to enhance students' learning and social interaction processes (Gillies & Ashman, 2000; Johnson & Johnson, 1986,1999,2009,2017; Johnson et al., 2014; Iglesias et al., 2013; Kaldi, 2010; Kaldi et al., 2014; Koutrouba et al., 2012; Slavin, 1985, 2015, 2016; Stavranioudaki, 2021).

The Cooperative group Teaching movement understands the development of teamwork both as a basic mission of the school, since teamwork is identified with socialisation, which the school aims at, and as an ideal framework for learning and the development of the individual into a complete and autonomous person. It is based on social constructivism, in line with the principles of social and cognitive development (Evangelou, 2023; Johnson & Johnson, 1999; Johnson et al., 2014; Louizou et al., 2019). In this context, learning is a communicative/social activity (Bruner, 1986), coupled with the fact that research reports (Evangelou, 2023; Johnson, 1986, 1999, 2009, 2017) that learning and behavioural changes are facilitated within a supportive environment, which can be provided within the group rather than individually. In Collaborative Teaching (CT), five key elements are required to structure collaboration between participants in work groups: positive interdependence, individual accountability, promotional interaction, social skills and group processing (Evangelou, 2023; Ferguson - Patrick, 2022; Johnson & Johnson, 2017; Prieto-Saborit et al., 2022).

In this context, CT is a social form of organizing teaching in the classroom - for all school levels - where students are organized into smaller groups and all members of each group through collaboration seek to carry out the teaching and learning activities or part of them and implement common goals they have set, thus maximizing learning for all (Chatzidimou & Anagnostopoulou, 2011; Jakavonytė-Staškuvienė, 2021; Johnson & Johnson, 1990, 2009, 2017; Kaldi, 2010; Matsagouras, 2002, 2011; Nikolakaki et al., 2010; Tamimy et al., 2023). As an extension of this problematic, one of the key features of CT, among others, is the "social form of classroom organization" where the classroom is not a sum of 20-30 students, but an organized social system, which depending on its dynamics influences and directs the behavior of students and the teacher towards one side or the other (Dimitriadou, 2016; JNalls & Wickerd, 2022; Matsagouras, 2011; Skopeliti & Riga, 2021).

Also, the term 'social form of organizing instruction' relates to the way in which students in a classroom are organized into small groups - either in cooperative teaching in pairs of students or in small working group teaching - and more thoroughly to the way in which the relationships between them are organized (Matsagouras, 2011; Taratori & Kougiourouki, 2003). Many times when utilizing collaborative team teaching students while working in a group engage in similar or different activities that do not require cooperation between them, however this way social interaction and communication is enhanced during their work when working in groups compared to the frontal way of organizing desks in the classroom (Evangelou, 2023; Kaldi, 2010; Prieto-Saborit et al., 2022; Skopeliti & Riga, 2021). The concept of group includes characteristics related to the social dimension of students' personality, such as mutual respect, tolerance, direct interpersonal communication, common goals, joint undertaking of activities, joint problem solving, sharing of responsibilities, cooperation and co-responsibility (Dimitriadou, 2016, p. 222).

The literature review shows the important role of CT in the learning of primary school students. More comprehensively, its implementation has found various benefits for students both academically and cognitively as well as socially and psychologically (Abramczyk & Jurkowski, 2020; Johnson & Johnson, 1986, 1999, 2009, 2017; Laal & Ghodsi, 2012; Matsagouras, 2004; Vriza & Karadimitriou, 2020). Academic and cognitive benefits result from students' engagement during group work combined with long periods of active engagement in the lesson and the development of high quality reasoning strategies that contribute to the cultivation of higher cognitive and communication functions (Chatzidimou & Anagnostopoulou, 2011; Johnson & Johnson, 2017; Kaldi & Stavrianoudaki, 2017; Koutselini & Theofilidis, 1998; Stavrianoudaki, 2021; Vriza & Karadimitriou, 2020). Typically, in a number of studies on the impact of CT on students' academic achievement, it is shown to be a more effective teaching approach compared to the traditional teaching model where students work in a competitive environment (Furtak et al., 2012; Johnson et al., 2014; Kaldi et al., 2014; Lazonder & Harmsen, 2016; Nikolakaki et al., 2010; Slavin, 1985, 1995, 2015, 2016).

The implementation of CT in the classroom results in benefits in the social sector through cooperation, complementarity and the broader climate of fair play that is formed by the students' work in groups (Johnson et al., 2014; Nima & Kapsalis, 2002; Vriza & Karadimitriou, 2020). Students' work groups operate in a context in which they can develop social skills that will help them in their learning and success at school and enable them to use them in different contexts as future citizens both in themselves and in their social and economic life, social and professional relationships (Buchs et al., 2021; Dyson et al., 2021; Drakeford, 2012; Johnson & Johnson, 1999; Johnson et al., 2014; Kakana, 2008; Matsagouras, 2000a, 2000b; Lyman et al., 1993; Nikolakaki et al., 2010; Zinsser, 2009). In addition, students who work in CT feel that they have better and positive relationships with their peers (Johnson & Johnson, 1986, 1999, 2017; Johnson et al., 2000; Johnson et al., 2000; JNalls & Wickerd, 2022; Nikolakaki et al., 2010).

At the same time, it has been found that in CT students are more enthusiastic during the educational process, and as a result they are more active and participate to a higher degree in

discussions compared to their peers who do not work collaboratively (Chatzidimou & Anagnostopoulou, 2011; Gillies & Ashman, 1998; Gillis, 2006; Hermawati et al., 2020; Johnson et al., 2000; Nikolakaki et al., 2010). Typically, it has been observed that group members feel more comfortable expressing their opinions when working in small groups rather than in the whole classroom (Jakavonytė - Staškuvienė, 2021; Nikolakaki et al., 2010; Pimple, 2002). Each student projects his/her individuality in the group which makes him/her unique and different (Johnson & Johnson, 1994; Nikolakaki et al., 2010). CT contributes to students' experiential engagement by enhancing interpersonal communication and the free and spontaneous expression of ideas (Evangelou, 2023; Jakavonytė - Staškuvienė, 2021). In this way, students are motivated to learn in an effective way and partners interact with each other in a creative way (Evangelou, 2023; Buchs et al., 2021; Skopeliti & Riga, 2021).

However, it is worth noting that CT has also received criticism that questions its feasibility, applicability and effectiveness (Dimitriadou, 2016, p.224). The main points of this criticism focus on:

- the limitation of students' self-expression and individual activity (Dimitriadou, 2016; Matsagouras, 2004; Nikolakaki et al., 2010)
- the slow pace of teaching, which means that the curriculum cannot be completed (Dimitriadou, 2016; Nikolakaki et al., 2010; Prieto - Saborit et al., 2022; Vriza & Karadimitriou, 2020)
- the fact that many students do not work in the group and expect other group members to do the work (Hahn & Jeon, 2005; Nima & Kapsalis, 2002; Prieto - Saborit et al., 2022; Vriza & Karadimitriou, 2020)
- the difficulty of assessing students' performance (Hahn & Jeon, 2005; Nima & Kapsalis, 2002; Vriza & Karadimitriou, 2020)
- the 'noise' in the classroom during group work (Hahn & Jeon, 2005; Nima & Kapsalis, 2002;Vriza & Karadimitriou, 2020)
- that group formation is very often negatively affected by unmanageable numbers of students (Koutrouba & Christopoulos, 2015)
- the rigid constraints of curricula (Buchs et al., 2017; Koutrouba & Christopoulos, 2015)

Although the literature review shows that the advantages outweigh the disadvantages for the value of CT, its implementation in the modern classroom is a constant challenge for teachers (Buchs et al., 2017). In this context, the present research aims to explore the views and attitudes of active Greek teachers in primary schools in the Epirus Region of Greece on the implementation of CT as a social form of teaching organization regarding the way of cooperation and organization of relationships between students during the teaching and learning process.

2. Method

2.1 The Aim of Research

The main purpose of this research is to investigate the attitudes and opinions of Greek teachers regarding the implementation of CT as a social form of teaching organization in Primary Education.

2.2 Research Questions

The research questions of this research are formulated as follows:

Research question (1): does CT ensure students' active participation in the learning and teaching process?

Research question (2): does the application of CT limit individuality and engage students' self-expression?

Research question (3): does the implementation of CT contribute to the creation of friendly relationships between group members?

Research question (4): does participation in group cooperative activities improve students' social skills?

Research question (5): with the implementation of CT, many students expect other group members to do the work;

Research question (6): does the implementation of CT improve students' academic performance compared to traditional teaching where they work individually?

Research question (7): is it considered that during CT the noise level in the classroom increases (becomes "noisy")?

2.3 Research Population & Sample

The population of the research is the total number of primary school teachers in the Region of Epirus (which includes four Prefectures/Regionals Units: Ioannina, Thesprotia, Arta and Preveza) in Greece.

The sample was selected by "cluster random sampling" (Cohen et al., 2000) from the list of primary schools in the Region of Epirus. From the total list of one hundred and eighty-three (183) primary schools, sixty (60) were randomly selected by drawing. From these school units, the sample of teachers was selected, which formed the sample of the present research. The "cluster random sampling method" was used to construct the sample, because the advantage of this method is that it allows us to have lists of clusters (schools) rather than individual items (teachers), which are time-consuming and almost impossible to find. With 'clustered' random sampling, a certain number of schools can be selected at random, whose teachers will be the sample for the survey (Cohen et al., 2000). As an extension of the above, in this research, it was much simpler to make a list of schools, rather than a list of all teachers across the country.

More specifically, a total of 210 questionnaires were collected out of the 300 administered. The participation rate was 70%. This percentage is considered sufficient to draw conclusions regarding the research questions and the sampling techniques used. In conclusion, the research sample is two hundred and ten teachers (210). Of these teachers, seventy (70) are male (33.3%) and one hundred and forty (140) are female (66.7%).

2.4 Research Measurement Instrument

The measurement instrument of the survey was a structured questionnaire of closed questions. To conduct the proposed research and to collect data, a structured questionnaire with "closed-ended" five-point Likert scale questions was used as a research instrument, which facilitates the connection with the objectives and research questions of the proposed research (Robson & McCartan, 2015) and satisfies the following two parameters. 'Closed' type questions offer the possibility of more controlled standardization of the collected data and through this effective comparisons of responses, are easy to understand and specific in terms of answers (Friborg & Rosenvige, 2013, p. 1398). b) 'Closed' type questions offer the same answer possibilities to all survey participants, yield data that are easier to manage and statistically processable (Gaskell et al., 2016, p. 1039).

In the present research, six of the thirty-six questions of the questionnaire are analyzed, because these questions investigate the opinion of the subjects of the research on the implementation of CT as a form of social organization of teaching, a dimension which is the main objective of the present publication. It is worth noting that almost all of the remaining questions refer to other teaching practices and techniques, such as differentiated teaching, participatory - experiential teaching techniques, etc.

At the same time, the measurement scale was varied from "1" to "5" of the Likert scale, due to the fact that it offers the possibility of a more controlled standardization of the collected data and through this, effective comparisons of responses.

The questionnaire used in this research was constructed on the Google Forms online platform because this allows it to be shared in a short period of time with the research subjects and allows us to have large samples of responses with relatively little additional effort (Evangelou & Fykaris, 2023; Robson & McCartan, 2015). In addition, this ensured the anonymity of the research subjects, which is a key element of the reliability of the research.

The link created corresponding to the questionnaire was emailed to the survey subjects. Upon completion of the questions and submission, the questionnaire database was updated in real time to allow immediate access to the research data for further statistical processing and analysis by the researcher. At the same time, uniqueness in the completion of the questionnaire for each survey subject was also ensured.

Regarding the "measurement instrument", the following are also noted: a) The questionnaire was sent electronically to the sample teachers in their personal emails and was accompanied by an information letter on the purpose of the survey and how to complete it. b) A telephone contact was made with each teacher in the sample, where the teachers in the sample were contacted in case they had any questions regarding the completion of the questionnaire or the

content of the questionnaire. The subjects were also informed that the questionnaire took between five and ten minutes to complete and that completion of the questionnaire was voluntary and anonymous. c) After fifteen days, from the initial mailing of the questionnaire, a second telephone contact was made with the sample teachers who had not completed the online questionnaire in order to reinforce the number of completed questionnaires.

2.5 Time Period for the Implementation of the Research

The research was conducted from the beginning of December 2022 to the end of January 2023.

2.6 Data Collection

The statistical analysis, processing and interpretation of the empirical data was carried out using the statistical package. More specifically, the analysis of the questions was performed as follows:

- first, the reliability of the questionnaire was checked using the Cronbach - Alpha index.
- then an analysis of the frequencies obtained from the recordings of the answers given was carried out.
- finally, a One-way Anova test of means was performed to determine statistically significant relationships between the variables. The independent variables were considered to be gender, age, speciality, employment relationship, studies, years of educational and teaching experience. The dependent variables were the views and attitudes of Greek teachers regarding the implementation of CT as a social form of teaching organization. It is worth noting that no statistically significant correlations were found between variables such as age, educational experience, gender and specialization.

2.7 Reliability of the Research Tool

The reliability of the questionnaire was checked by Cronbach's Alpha reliability index and it was found that it has a value of a=0.838>0.7 in all thirty-seven variables (Table 1 and 2). Consequently, the questionnaire is considered reliable due to the satisfactory and high value of the index (7 variables - questions are analysed in this research) (Evangelou & Fykaris, 2023).

Table 1. Case Processing Summary

		N	%
Cases	Valid	206	98,1
	Excluded[a]	4	1,9
	Total	210	100,0

Listwise deletion based on all variables in the procedure.

Table 2. Reliability Statistics

Cronbach's Alpha	N of Items
,838	36

2.8 Limitations of the research

A key limitation of the research is the relatively limited number of the sample, which means that it is not possible for the findings to be generalisable.

Also, the measurement instrument of the survey is a structured questionnaire, with "closed-ended" questions, which can create a limitation in the number of responses, as well as grouping them into general categories to collect information. In order to limit these, in addition to the pilot - test survey, it was sought from the beginning to properly design and formulate research questions that are specific, observable on the variables and measurable (Creswell, 2014).

3. Results

3.1 Frequency Analysis of Data for 7 Variables - Research Questions

The following is an analysis of data in terms of frequency for 7 variables - survey questions with tables and a description of the results.

Table 3. The frequencies with respect to the question variable (1)

Variable (1)	**Frequency**	**Percent (%)**
Not at all	2	1,0
Slightly	12	5,7
Moderately	41	19,5
Very	123	58,6
Extremely	32	15,2
Total	**210**	**100**

In the variable - question (1): 'to what extent do you consider that collaborative teaching ensures the active participation of students in the learning and teaching process?' from the 210 teachers who completed the questionnaire (Table 3), 2 (1%) answered "Not at all", 12 (5.7%) answered "Slightly", 41 (19.5%) answered "Moderately", 123 (58.6%) answered "Very" and 32 (15.2%) answered "Extremely". Consequently, a fairly high percentage (78,1%) is found between the answers "Moderately" and "Very".

Table 4. The frequencies with respect to the question variable (2)

Variable (2)	Frequency	Percent (%)
Not at all	44	21,0
Slightly	53	25,2
Moderately	55	26,2
Very	52	24,8
Extremely	6	2,9
Total	**210**	**100**

In the variable - question (2): 'to what extent do you think that the implementation of collaborative teaching limits individuality and binds students' self-expression?', of the 210 teachers who completed the questionnaire (Table 4), 44 (21%) answered "Not at all", 53 (25.2%) answered "Slightly", 55 (26,2%) answered "Moderately", 52 (24.8%) answered "Very" and 6 (2.9%) answered "Extremely". Consequently, half of the teachers' responses (51.4%) fall between the answers "Moderately" and " Slightly".

Table 5. The frequencies with respect to the question variable (3)

Variable (3)	Frequency	Percent (%)
Not at all	1	0,5
Slightly	6	2,9
Moderately	49	23,3
Very	102	48,6
Extremely	52	24,8
Total	**210**	**100**

In variable - question (3): 'to what extent do you think that the implementation of collaborative teaching contributes to the creation of friendly relationships between group members?', of the 210 teachers who completed the questionnaire (Table 5), 78 (20.5%) answered "Not at all", 185 (48.8%) answered "Slightly", 95 (24.9%) answered "Moderately", 20 (5.2%) answered "Very" and 3 (0.8%) answered "Very much". Consequently, a high percentage (73.4%) of teachers responded between " Very " and "Very much".

Table 6. The frequencies with respect to the question variable (4)

Variable (4)	Frequency	Percent (%)
Not at all	1	0,5
Slightly	7	3,3
Moderately	43	20,5
Very	98	46,7
Extremely	61	29,0
Total	**210**	**100**

In variable - question (4): 'to what extent do you think that participation in group activities improves students' social skills?' of the 210 teachers who completed the questionnaire (Table 6), 1 (0.5%) answered "Not at all",7 (3.3%) answered "Slightly", 43 (20.5%) answered "Moderately", 98 (46.7%) answered "Very" and 61 (29%) answered "Extremely". Consequently, a high percentage (75,7%) of teachers responded between "Very" and " Extremely".

Table 7. The frequencies with respect to the question variable (5)

Variable (5)	Frequency	Percent (%)
Not at all	3	1,4
Slightly	36	17,1
Moderately	79	37,6
Very	78	37,1
Extremely	14	6,7
Total	**210**	**100**

In the variable - question (5): 'to what extent do you think that by implementing cooperative group teaching, many students expect other group members to do the work?' of the 210 teachers who completed the questionnaire (Table 7), 3 (1.4%) answered "Not at all", 36 (17,1%) answered "Slightly", 79 (37.6%) answered "Moderately", 78 (37.1%) answered "Very" and 14 (6.7%) answered "Extremely". Consequently, a high percentage (74.7%) of teachers answered between " Moderately" and " Very".

Table 8. The frequencies with respect to the question variable (6)

Variable (6)	Frequency	Percent (%)
Not at all	5	2,4
Slightly	23	11,0
Moderately	73	34,8
Very	95	45,2
Extremely	14	6,7
Total	**210**	**100**

In variable - question (6): 'to what extent do you think that the implementation of collaborative group teaching improves students' academic performance compared to traditional teaching where they work individually?', from the 210 teachers who completed the questionnaire (Table 8), 5 (2.4%) answered "Not at all", 23 (11%) answered "Slightly", 73 (34.8%) answered "Moderately", 95 (45.2%) answered "Very" and 14 (6.7%) answered "Extremely". Consequently, fairly high percentage (80%) of teachers answered between " Moderately" and " Very".

Table 9. The frequencies with respect to the question variable (7)

Variable (7)	Frequency	Percent (%)
Not at all	6	2,9
Slightly	42	20,0
Moderately	78	37,1
Very	73	34,8
Extremely	11	5,2
Total	**210**	**100**

In variable - question (7): 'to what extent is it perceived that the level of noise in the classroom increases (becomes "noisy") during CT ?', from the 210 teachers who completed the questionnaire (Table 9), 6 (2.9%) answered "Not at all", 42 (20%) answered "Slightly", 78 (37.1%) answered "Moderately", 73 (34.8%) answered "Very" and 11 (5.2%) answered "Extremely". Consequently, fairly high percentage (71,9%) of teachers answered between " Moderately" and " Very".

3.2 Means and standard deviation of variables

The table below (Table 10) presents the means and standard deviation of the variables, which

is a measure of how much the values of the variable differ from their mean. In particular, a small deviation implies a high concentration of the values of the variable around the mean, while a large deviation implies a low concentration and a larger "spread" (Evangelou & Fykaris, 2023).

A five - point Likert - type scale was used with the following options: 1= Not at all, 2= Slightly, 3= Moderately, 4= Very, 5= Extremely. Thus, the closer to 1 the average of a statement, the more negatively respondents rated it and the closer to 5 the more positively respondents rated it (Evangelou & Fykaris, 2023).

Table 10. Means and standard deviation of the 7 question variables

Question variables	N	Minimum	Maximum	Mean	Std. Deviation
Question (1)	210	1,00	5,00	3,81	0,794
Question (2)	210	1,00	5,00	2,63	1,151
Question (3)	210	1,00	5,00	3,94	0,799
Question (4)	210	1,00	5,00	4,00	0,821
Question (5)	210	1,00	5,00	3,30	0,882
Question (6)	210	1,00	5,00	3,43	0,862
Question (7)	210	1,00	5,00	3,20	0,915

In the variable - question (1) (Table 10) the mean is 3,81 (standard deviation 0.794), i.e. very close to 4, which corresponds to the answer "Very". Consequently, the attitudes and opinions of respondents are positive. From the above data, it can be concluded that the participating teachers state, on average, that CT ensures the active participation of students in the learning and teaching process.

In the variable - question (2) (Table 10) the mean is 2,63 (standard deviation 1.151), i.e. between 3 corresponding to the answer "Moderate" and 2 corresponding to the answer "A little". Therefore, the respondents' attitudes and opinions (or statements) are roughly in the middle - neutral, i.e. neither positive nor negative. From the above data, it can be concluded that the participating teachers, on average, state that they are neutral regarding whether the implementation of CT limits individuality and binds students' self-expression.

In the variable - question (3) (Table 10) the mean is 3,94 (standard deviation 0.799), i.e. very close to 4, which corresponds to the answer "Very". Consequently, the attitudes and opinions of respondents are positive. From the above data, it can be concluded that the participating teachers state, on average, that the application of CT helps to create friendly relationships between group members.

In the variable - question (4) (Table 10) the mean is 4 (standard deviation 0.821), which

corresponds to the answer "Very". Consequently, the attitudes and opinions of respondents are positive. From the above data, it can be concluded that the participating teachers state, on average, that participation in teamwork activities improves students' social skills.

In the variable - question (5) (Table 10) the mean is 3,30 (standard deviation 0.882), i.e. well above the 3 corresponding to the answer "Moderately". Consequently, the attitudes and opinions of respondents are positive. From the above data, it can be concluded that the participating teachers state, on average, that with the implementation of CT, many students expect the other members of the group to do the work.

In the variable - question (6) (Table 10) the mean is 3,43 (standard deviation 0.862), i.e. between 3 corresponding to the answer "Moderately" and 4 corresponding to the answer "Very". Consequently, the attitudes and opinions of respondents are positive. From the above data, it can be concluded that the participating teachers state, on average, that the application of CT improves students' academic performance compared to traditional teaching where they work individually.

In the variable - question (7) (Table 10) the mean is 3,20 (standard deviation 0.915), i.e. well above the 3 corresponding to the answer "Moderately". Consequently, the attitudes and opinions of respondents are positive. From the above data, it can be concluded that the participating teachers state, on average, that during collaborative teaching the noise level in the classroom increases (becomes "noisy").

4. Discussion

After From the answers, as shown in frequency tables 3 - 8 and in table 9 - averages - to the above six questions, it is clear that the attitudes and opinions of Greek teachers are positive regarding the implementation of CT as a social form of teaching organisation.

More specifically, in question (1) a fairly high percentage (78,1%) is found between the answers "Moderately" and "Very" (Tables 3 and 10), i.e. the respondents' statements are positive regarding the fact that CT ensures the active participation of students in the learning and teaching process. The data of question (1) is in line with other researches where it was found that students during CT are more enthusiastic during the educational process, thus they are more active (Chatzidimou & Anagnostopoulou, 2011; Hermawati et al., 2020; Jakavonytė - Staškuvienė, 2021; Johnson et al., 2000; Nikolakaki et al., 2010).

In question (2) half of the teachers' responses (51.4%) fall between the answers "Moderately" and " Slightly" (Tables 4 and 10). The respondents' attitudes and opinions are approximately in the middle - neutral, i.e. neither positive nor negative, regarding the limitation of individuality and the commitment of students' self-expression during CT. In line with question (2) that a neutrality emerges in teachers' statements, research and studies have been identified where this neutrality and ambivalence are related to this neutrality and ambivalence. More specifically, on the one hand, research has found that in CT, students participate to a higher degree in discussions compared to their peers who do not work cooperatively since each student projects his/her individuality in the group which makes him/her unique and different (Chatzidimou & Anagnostopoulou, 2011; Gillies & Ashman, 1998; Gillis, 2006;

Hermawati et al., 2020; Johnson & Johnson, 1994; Johnson et al., 2000; Nikolakaki et al., 2010). It has been observed that group members feel more comfortable expressing their opinions when working in small groups rather than in the whole classroom (Jakavonytė - Staškuvienė, 2021; Nikolakaki et al., 2010; Pimple, 2002). CT develops interpersonal communication, free expression of ideas and spontaneous exchange of opinions (Jakavonytė - Staškuvienė, 2021). On the other hand, researchers claim that in CT, individuality is limited, self-expression and individual activity of students is bounded, so that their ideas are adapted to the demands of the group (Dimitriadou, 2016; Matsagouras, 2004; Matsagouras, 2000a; Nikolakaki et al., 2010; Skopeliti & Riga, 2021).

In question (3) a high percentage (73.4%) of teachers responded between "Very " and "Very much" (Tables 5 and 10), i.e. their statements are positive. From this it can be deduced that the participating teachers state to a high extent that the implementation of CT helps to create friendly relationships among the group members. Similar responses have been given in related studies whereby students working in CT feel that they have friendly and positive relationships with their peers (Johnson & Johnson, 1986, 1999, 2017; Johnson et al., 2000; JNalls & Wickerd, 2022; Nikolakaki et al., 2010; Skopeliti & Riga, 2021).

In question (4) a high percentage (75,7%) of teachers responded between "Very" and " Extremely" (Tables 6 and 10), i.e. their statements are positive. From this it can be concluded that the participating teachers state to a high extent that participation in group activities improves students' social skills. The data in question (4) is also in line with several studies in which it is reported that during CT, students' work groups operate in a context in which they can develop social skills that will both help them in learning and enable them to use them in different contexts as future citizens in social and economic life (Buchs et al., 2021; Dyson et al., 2021; Drakeford, 2012; Johnson & Johnson, 1999; Johnson et al., 2014; Kakana, 2008; Matsagouras, 2000a, 2000b; Lyman et al., 1993; Nikolakaki et al., 2010; Zinsser, 2009).

In question (5) a high percentage (74.7%) of teachers answered between " Moderately" and " Very", i.e. their statements are positive (Tables 7 and 10). From this it can be concluded that the participating teachers state to a relatively high degree that by implementing CT, many students expect other group members to do the assignments. The data of question (5) is found in similar researches where it is found that during CT many students do not work in the group and expect the other group members to do the tasks (Hahn & Jeon, 2005; Nima & Kapsalis, 2002; Prieto - Saborit et al., 2022; Vriza & Karadimitriou, 2020).

In question (6) fairly high percentage (80%) of teachers answered between " Moderately" and " Very", i.e. their statements are positive (Tables 8 and 10). From this it can be concluded that the participating teachers state to a relatively high degree that the implementation of CT improves the academic performance of students compared to traditional teaching where they work individually. In line with the data in question (6), several researches and studies investigating the effect of CT on students' academic achievement demonstrate that it is a more effective teaching approach compared to the traditional teaching model where students work in a competitive environment (Chatzidimou & Anagnostopoulou, 2011; Furtak et al.,

2012; Johnson et al., 2014; Johnson & Johnson, 2017; Kaldi et al., 2014; Koutselini & Theofilidis, 1998; Lazonder & Harmsen, 2016; Slavin, 1985, 1995, 2015, 2016; Nikolakaki et al., 2010; Vriza & Karadimitriou, 2020).

In question (7) a high percentage (71.9%) of teachers answered between "Moderately" and " Very", i.e. their statements are positive (Tables 9 and 10). From this it can be concluded that the participating teachers state to a relatively high degree that during collaborative teaching, does the noise level in the classroom increase (does it become "noisy"). The data in question (7) can be found in similar researches where it is found that "noise" is created during group work in the classroom (Hahn & Jeon, 2005; Nima & Kapsalis, 2002; Prieto - Saborit et al., 2022; Vriza & Karadimitriou, 2020).

The above discussion demonstrates the importance of CT as a social form of organizing teaching.

5. Conclusions

After From the results of the survey and the testing of the research questions on the factors investigated, some useful conclusions are drawn, which are coded as follows:

(i) A fairly high percentage of teachers state that the implementation of CT ensures students' active participation in the learning and teaching process, creates friendly relationships between group members and improves students' social skills. Based on these data, it becomes evident that the effect of CT is positive as a social form of teaching in the classroom. As an extension of this problematic, some key features and benefits of the application of CT in the social domain are highlighted that arise through cooperation, mutual complementarity and the wider climate of fair play that is formed by students' work in groups (Chatzidimou & Anagnostopoulou, 2011; Jakavonytė - Staškuvienė, 2021; Johnson & Johnson, 1990, 2009, 2017; Johnson et al., 2014; Kaldi, 2010; Matsagouras, 2002, 2011; Nima & Kapsalis, 2002; Nikolakaki et al., 2010; Tamimy et al., 2023; Vriza & Karadimitriou, 2020).

ii) A high percentage of teachers state that the implementation of CT improves students' academic performance compared to traditional teaching where they work individually.

iii) A relatively high percentage of teachers state that by implementing CT, many students expect other group members to do the work.

iii) Teachers' attitudes and opinions regarding the limitation of individuality and the commitment of students' self-expression during CT are about in the middle - neutral, i.e. neither positive nor negative. From these neutral results, it can be concluded that in order to increase the degree of self-expression and engagement of students as individuals in cooperative group teaching, a decisive role can be played by the teacher's judgment and acumen, so that during the teaching and learning process he/she guides and advises the working groups with the main purpose of actively involving each member of the group by providing continuous support and motivation for them to express and creatively use their individuality.

The results of this study show the value and usefulness of CT as a social form of organizing

teaching, which contributes to the general change of teaching and learning teaching and the creation of the appropriate learning environment for the benefit of students both cognitively and socially and psycho-emotionally. In conclusion, in order to achieve as many intended learning outcomes as possible, it is suggested that CT be utilized by teachers in combination with other forms of teaching (Dimitriadou, 2016; Matsagouras, 2007; Prieto - Saborit et al., 2022; Tamimy et al., 2023).

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