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Science and Social Studies Teachers' Beliefs and Practices about Teaching Controversial Issues: Certain Comparisons¹

The current study aims to investigate social studies and science teachers' attitudes and classroom practices associated with controversial issues. The study is a qualitative research based on data collected through interviews and observation. Social studies and Science teachers participated in the current study which was conducted in Kirsehir, a city in the center of Turkey, during the 2012-2013 academic years. Data were collected through classroom observation and interviews with teachers. In this study, teachers' positioning during controversial issues are determined by Kelly's (1986) positioning classification: Exclusive Neutrality, Exclusive Partiality, Neutral Impartiality, and Committed Impartiality. According to results of the research, violence against women, education system, terrorism and nationalism are the leading issues among the controversial issues that both social studies and science teachers listed in Turkey. In relation to their area, social studies teachers stated that the issues such as Kemalism, democracy, military coups, and deep state, which are associated with recent history of Turkey, were among the important controversial issues. Science teachers on the other hand stated issues such as cancer and anti-toxic foods and global warming among the controversial issues in Turkey. Both social studies and science teachers stated that the most frequently encountered problem in discussions was lack of knowledge by students. Whereas social studies teachers stated that their priority goals were particularly to raise active citizens and to set up a democratic classroom environment, science teachers pointed to raising scientifically thinking students and increasing students' knowledge as their priority goals. During in-class discussions teachers take some positions. The positions stated by the teachers and in-class observations of them conflict. Whereas the teachers stated that they prefer the 4th and 3rd positions, the in-class observations showed that they mainly adopted the 2nd position. Results of observations in social studies classes show that teachers definitely stated their positions about the discussed issue as a priority; they tried to teach the students their positions about the issue; and occasionally about some issues, they told just their positions.

Keywords:

controversial, social studies, science, teacher, Turkey

1 Introduction

As in all societies, the Turkish society discusses many controversial issues. However, what are these controversial issues? How is a controversial issue defined? These may be disputable. Not surprisingly, a controversial issue is not defined with consensus. Evans, Avery, and Pederson (2000) described controversial issues as "taboo" topics because they are not usually discussed in society as people take personal offense to the discussion. Stradling (1985) defines controversial issues as those issues on which our society is clearly divided and significant groups within society advocate conflicting explanations or solutions based on alternative values. Wellington (1986) states that a controversial issue must involve value judgments, so that the issue cannot be settled by facts, evidence or experiment alone and controversial issue must be considered important by an appreciable number of people (Wellington, 1986). Controversial issues can be local or global, such as bullying, religion, politics, personal lifestyle or values.

Controversy is dangerous. It is intimidating and divisive.

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It makes teachers and students ill at ease (Byford, Lennon, & Russell, 2009). Dealing with these issues in the classroom can disturb the peace and stability of the scholastic environment. It can set students against each other (Philpott, Clabough, McConkey & Turner, 2011).

However, as Dewhurst (1992) argues, students are going to meet moral dilemmas before and after they leave school. Schools therefore have to help their students to handle questions of value, to learn to make judgments which are truly their own as well as learning to take responsibility for their own lives'. Gore (1999) notes, it is not possible to avoid teaching about, political ideas, cultural differences, environmental change, family heritage, human rights and many other topics. Students, therefore, need the skills to resolve controversial issues, as well as the appropriate classroom instruction to promote the development of an informed, skilled and committed citizen. It also should help students develop democratic values, such as toleration of dissent and support for equality (Lockwood & Harris, 1985 cited in Reitano, Kivunja, & Porter, 2008). Students need to explore how it is that individuals can apparently arrive at different positions on an issue. Introducing them to multiple positions is therefore an essential part of the methods of teaching about controversial issues (Oulton, Day, Dillon & Grace, 2004). For the vitality of a democracy to be maintained, students must engage in civic discussions with those that have different points of view, and through this discussion, students will gain tolerance for differences in others and will learn important content knowledge (Hess, 2009). The discussion of controversial issues in the classroom provides students with opportunities to engage in higher order thinking by examining divergent points of view about an

issue (Camicia & Dobson, 2010). Soley (1996) explains that controversial issues help students to think deeper about the content and allow the students to self-reflect about their own values and the values of others. Using controversial subjects in science education may support them in establishing a connection between the subject matter and their daily lives and motivating them (Lin and Mintzes, 2010). Conducted studies have shown that controversial subjects with multiple original solutions can be a very effective tool for encouraging students to discuss and develop argumentation skills (Sadler, 2004; Simonneau, 2007).

Controversial issues that concern society are brought into the classroom by either teachers or students by the curriculum of some courses or outside of the curriculum. The act of bringing these controversial issues into the classroom, as well as the beliefs and applications of teachers regarding the controversial issues and the perceptions of students are highly interesting, in terms of studies. Another point is that the controversial issues may be a subject to pedagogical studies as they are considered an educational ideal or purpose. Students are required to have the skills of critical and systematic thinking, be sensitive and respectful towards cultural differences and have a more active place in the democratic society in order to become efficient and sensitive citizens with superior thinking skills especially in terms of democratic citizen qualifications, which is becoming more and more important (Seçgin, 2009). Soley (1996) stated that the discussion of controversial issues was a "cornerstone of our professional responsibility" within the field of social science education and must be discussed despite the potential barriers. Taking the controversial issues into the classroom is very important in terms of raising individuals with the skills of critical thinking, as well as the development of a democratic society (Parker, 1996; Yankelovich, 1999). This article examines the attitudes of social studies and science teachers towards the controversial issues and their intraclass practices.

2 Controversial Issues in Turkey

Turkey is located on Anatolian peninsula in the southwestern end of Asian continent. A large portion of its land is in Asia and some is in Europe. In this regard, Turkey is both an Asian and a European country. On the other hand, Turkey is also a Middle Eastern country. An important characteristic of Turkey is about its population of 77 million, half of which are youth. In addition, Turkey, featuring a democratic secular state, serves as the bridge between Muslim and the Western countries due to the fact that majority of its population consist of Muslims. Following World War I, upon Ottoman Empire's collapse, new Republic of Turkey based on people's sovereignty was founded in 1920 with Ataturk's leadership after a war of independence. Since then, the constitution was rebuilt 4 times (1921, 1924, 1961, and 1982 Constitution); due to political unrest, the military seized power twice in 1960 and 1980; again they forced the government to resign in 1971 and 1977. For the last 15-

20 years, a rapid scientific, technology, social, and cultural change has been experienced in Turkey.

Turkey's cultural identity is an intersection for four separate elements. These elements consist of: authentic Turkish culture (Central Asia), Islamic culture (Arabic, Iranian), Anatolian local cultures and Western (European) culture (Turan, 1990: 42). This intersection provides for a rich Turkish culture with diversity. All these historical events and rapid changes constitute the source of many controversial issues in Turkey today.

As is expressed in the beginning of the article, controversial issues have various definitions. For instance, Stradling (1984) states the following regarding the controversial issues.

An idea or viewpoint may be considered an issue if a number of people disagree about statements and assertions made in connection with the proposition. Issues that deeply divide a society, that generate conflicting explanations and solutions based on alternative value systems, are considered controversial (Stradling, 1984).

Similarly, Bailey (1975) defines the controversial issues as follows:

If a number of different people think about an issue or a problem and if they have contradicting ideas on that issue, it is considered a controversial issue (Bailey, 1975; Cited by: Yilmaz, 2012:202).

As it is understood from all these definitions, the main points in controversial issues involve the disagreements on them and different views in society concerning the reasons and solutions of a problem. A controversial issue in a society may not be controversial in a different society. At this point, elements like the beliefs, culture, history, social and economic position of a society are very important. Besides, controversial issues may differ from time to time. For instance, the enfranchisement of woman in the USA transformed from a controversial political issue to an issue to be accepted almost by all the Americans (Hess, 2004). Should women have the right to vote in the United States? It is no more a controversial issue as it is no more discussed in the United States (even though it is still a controversial issue in some areas of the world). Another instance is related with the position of women in Turkey. It is stated that an important part of women in Turkey should be involved in business life, women and men should have equal rights and violence against women should be terminated. However, a considerable number of groups state that women should stay at home and stand behind men. In some cases, they even assert that a husband may beat a woman (his wife) (although it is against the constitution). Some women may even accept this condition. However, an important part of society objects to this view, which makes it a controversial issue in the Turkish society today.

In conclusion, there are different views about controversial issues according to time and society.

Many controversial issues are included in the curricula in the classrooms in order to help students gain certain values and skills. On elementary level, particularly in social studies and science classes, controversial issues take place. In 2005 – 2006 academic years, curricula of both subjects were restructured through constructive learning approach (MEB, 2005a). Elementary science classes aim to educate researching-questioning and problem-solving individuals, with decision making skills, who are able to think critically (MEB, 2005b). For this purpose, many socio-scientific and controversial issues (brain drain, environmental pollution, global warming, evolution theory, genetically modified products, human genome project, cloning, sexual education, etc.) are included within science curriculum. These subjects, which are part of science education, are referred to as "socio-scientific issues" in international literature. Socio-scientific issues are subjects which concern the society, which cover scientific moral dimensions, which have several different resolutions that can be achieved via reasoning, which do not have a definitive solution and which include open-ended problems (Sadler, 2004; Sadler, 2011; Sadler and Zeidler, 2005). Solution strategies of socio-scientific issues benefit from scientific principles, theories and scientific data. However it cannot be said that there solutions are fully supported by scientific approach. These are also supported several social factors including politics, economics and ethics (Demiral, 2014). With the social studies curricula renewed in 2005-2006 academic years, the content was completely different along with the controversial issues, many of which (Kemalism, freedom of press, democracy, laicism, population, freedom of thought, political issues, etc.) were included in the curriculum. Many of these recent topics are the controversial issues which are included in social studies and science curricula. However, what do teachers think about controversial issues? How do teachers discuss these issues in the class? Response to these issues during instruction is very important because teachers, who are the implementers of curricula, decide if controversial issues will be discussed in the class as well as which ones and their approach can determine if students are able to express their views comfortably to the class (Yilmaz, 2012).

Related Studies

Examining the literature, it is observed that there are various long-term studies regarding the controversial issues and the education of these issues. It is also observed that these studies mainly focus on the teaching of controversial issues in classroom (Hess, 2002a; Hess, 2001a; Hess, 2001b; Dewhurst, 1992), as well as the practices of teachers in classroom, the difficulties they encounter with and their views (Byford, Lennon, & Russell, 2009; Hess, 2005; Hess, 2002b; Philpott, Clabough, McConkey & Turner, 2011; Lockwood, 1996; Oulton, Day, Dillon & Grace, 2004; Wilson, Haas, Laughlin, & Sunal, 2002).

In Turkey, on the other hand, it is observed that there has been an increase in the number of relevant studies in

recent years. Rather than experimental studies, there are studies regarding the thoughts of teachers and pre-service teachers about controversial issues (Avaroğulları, 2014; Ersoy, 2010; Ersoy, 2013; Seğgin, 2009; Sönmez and Kılınc, 2012; Yilmaz, 2012). However, the studies in this field are still very limited. This study, on the other hand, aims to determine and compare the issues being discussed in science and social studies classes and the practices of teachers during the discussions.

Method

The current study is a qualitative research based on data collected through interviews and observation.

Participants

Social studies and Science teachers participated in the current study. In order to become a teacher in Turkey, one must graduate at a 4-year college of education. In addition, graduates of history and geography majors can be appointed as teachers of social studies as well as graduates of physics, chemistry, and biology as teachers of science, following a one-year pedagogical formation program.

The current study was conducted in the city of Kirsehir, geographically located in the middle of Turkey in 2013 academic year.

Kirsehir is a small city near the capital Ankara in the middle of Turkey. In general, families have a medium social economic status (800-1400\$). This city attracts attention particularly with achievement levels in entrance to secondary and higher education on national tests.

The study group was composed of teachers who were selected based on various professional experience, various employment regions, and different genders. Initially, the aim of the current study was explained to 18 social studies and 17 science teachers and they were shown the interview questions. Later, 24 volunteering teachers were interviewed and recorded. Responses of 4 teachers who did not want their voices to be recorded responded to the interview questions in writing.

12 of the participating teachers were social studies and the other 12 were science teachers. 13 teachers were male whereas 11 were female. Teachers' professional experiences varied from 3 to 20 years. All teachers stated that they received no training on teaching controversial issues.

Collecting the Data

Data collected for qualitative research may be diverse and in the form of observation notes, interview records, documents, photos, and other graphic representation (Cohen et al., 2007; Ritchie and Lewis, 2003; Yıldırım and Şimşek, 2005). Data for the current study was collected through classroom observation and interviews with teachers. First, through a semi-structured interview form, teachers were interviewed face-to-face. Teachers were contacted prior to the interviews and at a convenient time and date, they were interviewed in the schools where they worked. Duration of interviews

varied between 14 and 17 minutes. Prior to the interviews, a pilot application was conducted with 2 social studies and 2 science teachers. Teachers were asked about issues that they considered controversial in Turkey, the issues that they discussed during class, their purposes, and problems that they faced during discussions. Teachers took various positions to controversial issues. In the final question teachers were asked about their preference among the four positions (Table 1) that Kelly (1986) described.

Table 1: The positions teachers take on controversial issues

1 st Position (Exclusive Neutrality)	As a teacher, I do not convey controversial issues to the class and I do not express my personal opinion about such an issue.
2 nd Position (Exclusive Partiality)	About a controversial issue, I try to convince students to take a preferred right position. As a teacher, I explain my personal opinion in order for students to accept.
3 rd Position (Neutral Impartiality)	I support discussions about a controversial issue during the class. I do not state my personal opinion about the issue but I encourage students to express their own opinions.
4 th Position (Committed Impartiality)	I support discussions about controversial issues during the class; I state my personal opinion or position about the issue; and I encourage students to explain their own positions.

In addition to the interviews with teachers, observations were conducted during in order to see the classroom practices of those teachers. They were observed during the classes by trained observers. The content of the current study was explained to the observers and they were asked to take notes during discussions in the class. Class sessions of teachers who were interviewed during 2013 fall semester were observed. Thus, the difference between teachers' opinions and practices were identified.

Data Analysis

In the current study, during data analysis, first, all notes taken during interviews and class observations were directly transcribed. In this way, interviews and classroom observations were documented. Secondly, this document was studied and teachers' responses to questions were coded in Excel format by the researcher and a colleague. Thus, the issues that teachers considered to be the least and the most controversial in Turkey, the issues that they convey to the class and discuss, their targets during the discussion in the class, and their positions were identified. Thirdly, teachers' opinions were compared to their classroom practices through observers' notes. In direct quotes, teachers'

names were not given but abbreviations were provided. For instance, (ST-1/M) represents the first male science teacher; (SST-2/F) represents the second female social studies teacher. When the observers' notes were transferred, (SC-1) represented the first science class observed; (SSC-2) represented the second social studies class observed.

3 Findings

Findings obtained from social studies and science teachers were presented in five categories: 1- Controversial issues in Turkey, 2- Classroom controversial issues, 3- Goals of teaching controversial issues, 4- Problems faced during teaching controversial issues, 5- The positions teachers take on controversial issues

Controversial issues in Turkey

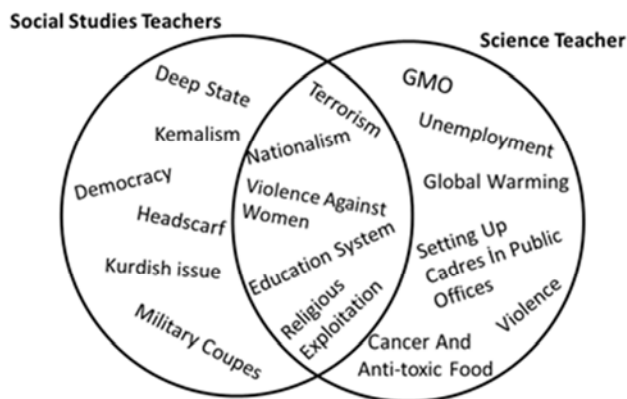
Social studies and science teachers stated many issues that they considered controversial in Turkey. Social studies teachers stated that the issues such as violence towards women, nationalism, terrorism, education system, Kemalism, democracy, military coupes, deep state, Kurdish issue, headscarf, and religious exploitation were particularly controversial. Science teachers stated that issues pertaining to the education system, genetically modified products, violence against women, terrorism, unemployment, violence, religious education or religious exploitation, setting up cadres in public offices, cancer and anti-toxic food, global warming, and nationalism were the most controversial in Turkey. Social studies teachers said that the stated controversial issues were included in the curriculum and thus they convey them to the class to discuss. Some social studies teachers even explained that they took some global and local controversial issues to the class to discuss even if they were not included in the curriculum. Science teachers on the other hand said that these issues were controversial in Turkey; as citizens they discussed these issues outside the class but were not able to discuss all these issues with their students during class.

There are some common issues (violence against women, education system, terrorism, etc.) that both social studies and science teachers consider controversial in Turkey which included violence against women. In general they stated that the issue of violence against women has been experienced for many years in Turkey, but had surfaced and been discussed until recently. Particularly in recent years, the violence against women was in an obviously public form and therefore publicized more by the media and teachers have begun to discuss the issue recently. The science teacher who expressed opinion about the issue said the following:

In my opinion, the most controversial issue in Turkey right now is the violence against women. In fact, the violence against women has always been an issue in Turkey. However, media puts it in their agenda when they want but when they do not, they manage to have people forget it (ST-3F).

Along with violence towards women both social studies and science teachers consider the education system to be among controversial issues in Turkey. Teachers stated that this as a very important issue and many people discussed it and that particularly the test systems in Turkey were very controversial. Another issue that is considered controversial in Turkey is terrorism. Many teachers of both subjects emphasized that terrorism had been a problem for Turkey for many long years and it caused both lives and material losses.

Figure 1: Issues considered the most controversial by teachers in Turkey



In addition to stating the most controversial issues in Turkey, teachers also told the least discussed issues nation-wide. Both social studies and science teachers thought that gene therapy, euthanasia, human genome project, cloning, and hybrid seeds were among the least discussed issues in Turkey. Science teachers stated that these issues were included in the curriculum on various levels and were taught to children. However, teachers said that these issues are rarely on the agenda and the public is not aware of them. Social studies teachers, on the other hand, stated that they had not encountered these issues and they are not presented in the media and people do not discuss these issues. In addition to the commonly expressed issues, social studies teachers said that issues of nepotism, bribery, and corruption are not discussed in Turkey. A social studies teacher stated the following about this:

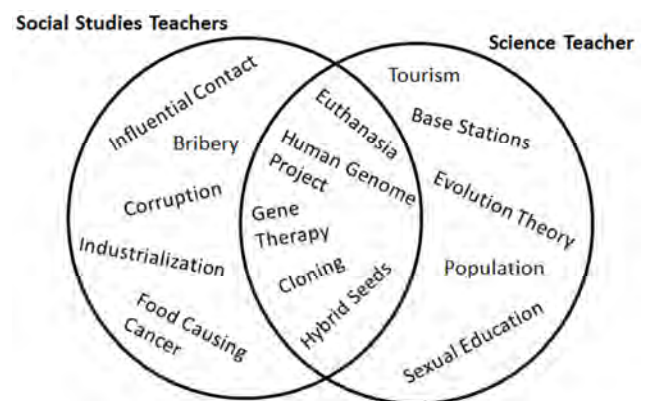
There are many issues that people do not discuss in Turkey such as nepotism, bribery, and corruption that were much discussed in the past but are never on discussion agenda nowadays. I think there are two reasons for that; either people have become very insensitive or these problems are not encountered in Turkey anymore (STT-5/F).

The food causing cancer, which was included among the most controversial issues in Turkey by science teachers, was shown among the least controversial issues by social studies teachers. Science teachers again stated that such issues as evolution theory, base stations, and sexual education included in the curricula were among the least discussed issues in Turkey.

A science teacher expressed their opinion stating following:

In fact, I noticed just now when you asked, many issues that we teach in the class are never discussed by the public, for instance, euthanasia, human genome project, evolution, gene therapy, and sexual education. Because people are ill-informed about such issues, they are not among the controversial issues. The issue of evolution is put on the agenda from time to time but is never supported by the public because the vast majority thinks the same way about evolution due to our beliefs. Therefore, this does not become an issue of discussion. Sexual education is never discussed since there is pressure about this issue and about other issues that I brought up (human genome project, gene therapy, individuals are ignorant in regards to these issues (ST-6/F).

Figure 2: The issues that teachers consider the least discussed in Turkey



In-class Controversial Issues

Almost all social studies teachers stated that the most discussed issue within the class was Kemalism. Most stated that issues associated with Kemalism were included in the curriculum and therefore this issue was largely covered. They emphasized that they even associated Kemalism with many other topics. Furthermore, some social studies teachers stated that students learned Kemalism in a wrong way within the family or in the environment; therefore, they try to provide correct information through in-class discussion. Social studies teachers stated the following about this issue:

I try to almost every week bring up the issue of Kemalism in the class and discuss with my students. I associate it with many topics. However, children have some inaccurate information about this. In particular, inaccurate information they learned from their families. I am trying to correct this (STT-1/F).

Teaching Kemalism is one of the basic goals of social studies subject. Therefore, it is largely covered in the class. In particular, all topics of 8th grade are associated with Kemalism. Therefore, we discuss this issue extensively in the class. However, children are not very

well informed about this or they have difficulty understanding due to their age levels (STT-7/M).

Most social studies teachers stated that they bring up issues of education system, environmental pollution, democracy, and laicism, freedom of press, brain drain, terrorism, and nationalism in the class. Some social studies teachers, on the other hand, said that they convey issues of violence against women, internet, and independence of judiciary, Armenian problem, and earthquake to the classroom to discuss with students. Social studies teachers stated that they discussed issues such as democracy, laicism, freedom of press, nationalism, and independence of judiciary particularly with 8th grade students but at lower grades, they did not find much ground for discussion.

According to the in-class observation results, the leading topic among issues that all social studies teachers discussed during class was Kemalism. Observation results showed that social studies teachers associated social studies topics with Kemalism and discussed it often. An observer took the following notes about this:

Because it is the subject of the 8th grade History of Ataturk's Principles and Reforms, the topic of Kemalism is brought up every period. Teacher often talks to the students about this issue. Even if different topics are discussed, this issue is brought up in a way (STC-3).

Regarding the issue of Kemalism, observers stated that in today's deviation from Kemalism, misconceptions, and misunderstanding true Kemalism were discussed. One observer wrote the following about this issue:

In particular, teachers discuss about particularly the assaults against Kemalism during class. One Teacher emphasizes that Kemalism is interpreted in favor of their interests by each segment of the society or defamed. Discussions about this are often held so that teacher can truthfully inform their students. Because political topics are too abstract for students and they cannot understand many of the concepts, they only state slogan statements heard in the family or environment (SSC-11).

Based on the observation results, other issues that are brought up in social studies classes included human rights, environmental pollution, nationalism, test systems, terrorism, democracy, cultural corruption, unemployment, brain drain, internet, laicism, population, education system, and some political issues. The Observation results also show that some social studies teachers convey with the class and discuss with students the TV series associated with Turkish history and issues such as Turkey-EU relations, violence against women, Kurdish problem, ethnic problems, unplanned urbanization, hydroelectric power plants, religious communities, and Syrian problem. However, majority of the observers state that, in social studies classes, these diverse topics were not discussed. When they were

discussed, not all students participated. They state that these topics were not covered as discussion points but rather points to lecture about and teachers gave brief description of these issues, told their personal opinion, or presented the information from the textbook. One observer told the following associated with this:

The teacher talks about democracy, laicism, and freedoms, in the 7th grade. In this unit, the teacher asked about the definitions of democracy and other government styles, one at a time. S/he informed the students about gains of democracy and its brief history. No discussion was held about these topics (SSC-5).

Almost all science teachers, on the other hand, stated that the topic of evolution in class was a controversial issue. However, they stated that there were no detailed discussions about this topic because students were not knowledgeable in regards to this topic and they taught this only as a scientific theory as required in the curriculum. A science teacher stated the following:

Evolution theory is included in the 8th grade curriculum. Therefore, we discuss it in the class. Children think that this topic is against the truth of creation. In fact, we teach this only as a theory and since we do not think differently, there is no room for discussion (ST-1/F).

Other topics that science teachers discuss with students in the class are genetically modified foods, environmental pollution, cloning, sexual education, human genome project, nuclear power plants, organ transfer, and gene therapy. In addition, some science teachers stated that they discussed issues such as Kemalism, hydroelectric power plants, earthquake, hybrid seeds, and internet use in the class. Some science teachers stated that these were scientific topics and therefore children accept them easily and there was no room for discussion. One science teacher stated the following about this:

Our topics are different from the topics in social studies. Topics within science are scientific; therefore, if they are not against students' values, students think that these are true. On the other hand, because many topics are about the everyday life, in social studies, students can have more discussions (ST-2/F).

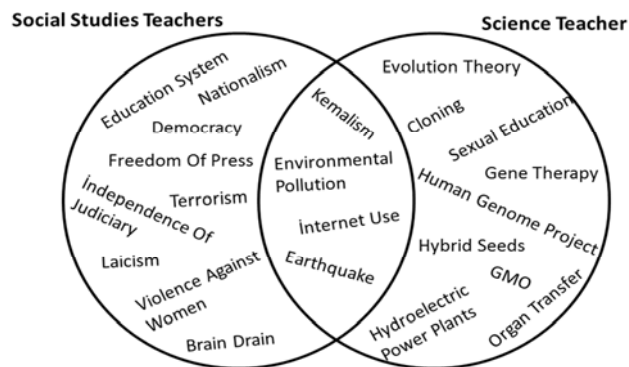
According to the observations in science classes, the most discussed topics by science teachers in the class were environmental pollution, nuclear power plants, and education system. Other topics that science teachers discussed were internet, genetically modified products, cultural corruption, sexual education, evolution theory, organ transfer, brain drain, violence, and cloning. Observers took the following notes in science classes:

For a long time the teacher had not set up a discussion in the class and today, s/he had a brief discussion session about environment and environmental

pollution (SC-9). The teacher wants to include current issues as well as science topics in the class. Before the class, s/he asks about what students think about the day's current issues (such as internet, politics, and violence) briefly (SC-12).

In the classroom that I observed, the teacher talked about the education system and exams in Turkey in a few class sessions.

Figure 3: The issues that Social Studies and Science teachers discuss in the class



Purposes of Teaching the Controversial Issues

Teachers also stated their priority goals for in-class discussions. Social studies teachers said that their priority goal in particular was to educate active citizens and to set a democratic class environment whereas science teachers stated that their priority goal was to educate scientifically thinking citizens and to increase students' knowledge. Both social studies and science teachers stated the goal for students to learn to respect others' opinions as the common goal. Teachers told the following about their priority goals in class discussions:

As a social studies teacher, my priority goal is to educate active citizens by setting up a democratic class environment because so far passive citizens, including us, have been raised. This should be replaced by active citizenship from now on. The best place to teach this is the school and the best subject to teach it is the social studies (STT-3/M).

My priority during the discussions is to teach the children the respect for diverse opinions because the most important requirement of social life is to accept the others as they are. When this is established, ideas, dialogs, and brainstorming will increase. Otherwise, we will not be able to progress (STT-4/F)

My priority is to raise scientifically thinking citizens, which I think what we need the most. Scientific knowledge should be taught within this. When people can think individually, many things will have been accomplished (ST-5/F).

In addition, some social studies teachers stated their priorities as improving analytical thinking skills, increasing students' knowledge, changing students' values, and raising scientifically thinking citizens. On the other hand, some science teachers stated their priority goals as setting up a democratic class environment,

changing students' behaviors, and improving students' analytical thinking skills. Observation results show that during discussions social studies teachers' priorities were to increase students' knowledge and to change students' attitudes. Some observers on the other hand stated that in social studies classes teachers tried to set up a democratic class environment.

Observers stated the following about social studies teachers' goals in classroom discussions:

During discussions, the most frequent activity accomplished by teachers was to provide information about the topic. However, this is not a well-rounded position. The teacher was informing the children about the topic from whatever was his/her knowledge and aimed to change students' attitudes and opinions which s/he considered erroneous (SSC-1).

Teachers are in fact using the discussed topics as a tool. By setting up a democratic class environment, s/he is showing the students that diverse opinions may be held and must be respected (SSC-7).

Furthermore, the observers stated that in science classes the first priority of teachers was to increase students' knowledge. Some observers also stated that teachers' priority was to change students' behaviors and attitudes. Observers stated the following about science teachers' goals in class discussions:

Teacher completely focuses on knowledge. For instance, when explaining the evolution theory, s/he states that s/he also does not believe in this theory and explains the assumptions this theory puts forward and adds that s/he teaches the theory because it is included in curriculum (SC-5).

In the class I observed, there was not much room for discussion. I have been attending the teacher's class for four weeks; as far as I observed, in science class, I think teacher's priority for students was not to miss a question in the test. Namely, the teacher's priority was to add in students' knowledge about the topic (SC-6).

Problems with Teaching Controversial Issues

Both social studies and science teachers stated that the most frequently encountered problem during discussions was the children's lack of information. Some social studies teachers said that students were influenced by families, they occasionally had inaccurate information, and it was so hard to change that.

Teachers stated the following about the problems encountered in social studies classes:

The problem I encountered most during the discussions was a child's inadequate information or misinformation about the topic discussed. The child only states what s/he acquired from the family. Child's family is much determinant in this. The child has the values transferred from his/her family. The child is influenced by the family's view (STT-2/M).

One of the important problems I encounter is disrespect. Students do not tolerate listening to one another; no respect for diverse views. Children do not accept that other people may think differently (STT-11/F).

Observation results showed that the most encountered problems during discussions were chaos, students not listening to each other, teacher-only talks during discussions, students unable to produce different ideas due to incomplete information, and only some students speaking up.

An observer told the following in regards to problems encountered:

During discussions, often teacher lectures. In a 10-minute discussion, teacher himself/herself talks for 7-8 minutes and finally gives the floor to a few students. Students cannot enrich discussions with their thoughts (SSC-10).

The most serious problem during the discussions is that the discussions are very shallow and that students do not listen to one another. Students express their views when social problems are discussed but a discussion setup is not formed in discussions about topics such as democracy, freedom of press, human rights, and freedom of thought. The same students continuously want to talk about all topics (SSC-2).

Due to our (observers') presence in the class, the teacher is very cautious; when the topics are covered, the teacher is only making the students read what is written in the book. The teacher is not moving; and since the students do not question, it is not possible to talk about a medium for discussion (SSC-6).

On the other hand, the science teachers stated that when sexual topics are discussed, students are shy and when obesity is discussed, children with weight are shy.

They shy away when the sexual education topic is covered. They are embarrassed. As long as we state that this is something to know about, we overcome their timidity (ST-4/F).

When I present a controversial issue to the student, the student cannot build an antithesis to that. Even though the student is against the idea, s/he cannot produce an opinion and cannot use evidence. The students do not have a culture of discussion and they need information (ST-11/M).

According to the observation results in science classes, the most serious problem about controversial issues is the teacher not allocating time for these topics. Majority of the observers state that teachers do not allocate time particularly for controversial issues and they mostly teach to the test and practice answering questions. Observers stated the following about this:

There is a lot of pressure by the administration and particularly by the parents on the teacher. Detailed discussions on a topic cannot be held at school. The

classes all are basically like a transfer (teacher) and recording (students) of information (SC-2).

Frequent pilot tests are given at school. Following the test, students' scores are checked. Due to this pressure, the teacher just covers the class so as to increase students' achievements. For instance, the teacher prefers to emphasize what type of questions students may see on the test rather than to discuss a controversial issue (SC-7).

The positions teachers take on controversial issues

Research results show that social studies teachers often prefer the 4th position (see table 1). Teachers taking this position support in-class discussions, state their opinion or position on the issue, and encourage students to express their personal positions. Social studies teachers state the reason why they take this position as that during discussions if they do not express their personal views, students will not express their own positions. Some social studies teachers also stated that they express an idea as if it were their personal idea (devil's advocate technique) in order to activate students and pull them into the discussion. Social studies teachers stated the following about the 4th position:

The child needs to be educated in the class in order to use this education in the street; they cannot take this culture in the streets. In order for me to be a model for them, I need to state my personal opinion bravely. I encourage them by saying 'see, I state my opinions, you can do the same'. Then, I say that no one can judge us for our opinions (STT-12/M).

Eventually, we are citizens too; we have opinions about a controversial issue. I believe if anyone says that they do not have an opinion they are lying. It is not possible to set up a discussion without stating your opinion (STT-5/F).

Some social studies teachers stated that they often prefer the 3rd position. In the 3rd position, teachers support in-class discussions, they do not state their personal opinions but they encourage students to state their personal opinions. Social studies teachers stated that they usually try to prefer this position in order not to influence students. A social studies teacher stated the following about the third position:

During the discussions, as far as possible, I do not state my opinion because this is the right position to take. When we state opinion, students cannot produce counter ideas. They are influenced by what we say (STT-10/M).

Some social studies teachers, on the other hand, stated that they preferred the 2nd position about the issues (homeland, nation, Kemalism, etc.) that they considered sensitive. Teachers taking the second position try to convince students to take a preferred right position and state their personal opinion in order for students to

embrace. A social studies teacher preferring the second position stated the following about this:

We are social studies teachers; we explain the unity of homeland and nation to the children. Children must not get misinformed about these issues. I talk about these with the children and explain for them to embrace. It is not right to remain impartial about these issues (STT-9/M).

Social studies teachers who do not prefer the second and the third positions explained why they did not prefer them as in the following:

I do not prefer the second position because I do not have an obligation to impose an opinion. Everyone's habitat is different; therefore, everyone may have diverse ideas about one issue. I do not think I have the right to impose an idea (STT-4/F).

The third position may be a must. I do not believe that anyone saying that during discussions they do not state any opinion is sincere. This is very hard in our country conditions. There is this objective of teaching one's own ideas even when explaining an issue (STT-8/M).

Research findings show that science teachers often prefer the 4th and 3rd positions. Only one science teacher stated preference for the 2nd position. Science teachers preferring the 4th position stated that they put forward their personal opinion in order to encourage students and in order for them not to misunderstand the evolution theory. Teachers preferring this position stated that they do not impose their ideas during discussions. Science teachers preferring the fourth position stated the following:

I definitely state my personal opinion about the issues during discussions in the class. However, I explain why I defend this idea with its truth. Later, I tell them to state their opinion and to tell the truth (ST-10/M).

I state my opinion during discussions. In particular when explaining the evolution theory, I tell my opinion too. Otherwise, students think that we embrace these (ST-12/M).

We are not like social studies teachers. There are exact scientific truths and I definitely tell them in the class (ST-6/F).

Teachers preferring the third position stated that they do not tell their opinions in order not to influence students. Teachers preferring the third perspective stated the following:

I do not tell my opinion during in-class discussions because children assume that our opinion is correct. However, I ask them questions that may guide them and pull the discussion into different dimensions (ST-1/F).

As with the social studies teachers, some science teachers also stated that about some issues they

considered sensitive, in order to teach the children the truth, they prefer the second position.

The science teachers who do not prefer the second position told the following about why they do not:

I never prefer the second position during the discussions because the goal of discussions is not to influence students' opinions or impose an idea but only to learn to think (ST-5/F).

If I prefer this position, there will not be any room for discussion. Students will not be able to explain their opinions. Students must be free to form their own ideas (ST-8/M).

Observations in social studies classes show that majority of teachers take the second or fourth positions. The Observation results show that teachers prioritize stating their own opinions about the topic; they try to teach their views to the students; and about some issues, they state only their views. Observers told the following about the position that teachers took in social studies classes:

Often an environment for discussion is not set up; teachers just provide information about issues and try to convince students. They explain the issues as they make a presentation. They do not allow for much student dialogue (SSC-1).

The teacher always tells his/her opinion about the issue. However, s/he also tells the truth behind it. S/he tries to have students think freely and sensitively (SSC-7).

The observations in science classes show that teachers often convey the controversial issues into the class but a discussion medium is not fully set up. Observers stated that teachers told their views about the controversial issue and got a few students to talk about the topic. Some observers on the other hand said that teachers preferred the fourth position; they both stated their views and got students' views on the issue. Observers stated the following about the positions that teachers took in science classes:

The teacher does not manage a medium of detailed, long discussion in class. S/he tells his/her opinion and continues to cover the topic. S/he does not present diverse views and does not elicit students' views (SC-11).

First of all, the teacher asks questions about the controversial issue to students; gets students' responses; and later, presents diverse views and elicits students' views again. S/he states his/her opinion about the issue (SC-8).

Because the teacher does not discuss issues in the class, s/he does not take any position. S/he transfers whatever is in the textbook or in the supplementary book to students, answers questions about the issue and finalizes the lesson (SC-2).

4 Results and discussion

The following results were obtained in the current research which was conducted in order to investigate social studies and science teachers' views about controversial issues and their practices within the classroom; they were then compared to each other.

Violence against women is the leading issue among the controversial issues that both social studies and science teachers listed in Turkey. Violence against women is a common problem experienced by all women around the world regardless of religion, race, language, and ethnic background. In Turkey also, the issue of violence against women is a social problem. Several researches conducted indicated various violence types against women in Turkey (TNSA 2003; Vatandaş, 2003; Kalaycıoğlu & Tılıç 2001; Ayaz, Çıra, & Kara 2007; Altınay & Arat 2007). Recently the violence against women has been one of the most discussed issues in Turkey upon becoming more exposed publicly in the mass media attention. Therefore, teachers stated that violence against women was a controversial issue. Because of this, both male and female teachers have defined the subject of "violence against women" as controversial. While female teachers presented more detail and voiced their demands regarding harsh penalties for preventing violence against women, male teachers merely stated that violence against women is a serious problem in Turkey.

Another issue regarded as controversial by both social studies and science teachers in Turkey is education system. Teachers included this issue among controversial issues because they are in the system; it impacts all families; and reorganizations in education are experienced every year in Turkey. Although for the last 11 years a single political party was the ruling party, the minister of national education was replaced five times and based on this, the education system was modified. Many times the standardized tests conducted after elementary and secondary education is considered an important problem in Turkey. Again due to recent reorganization of religious education and the disputes between the ruling and opposition parties, the issues of religious exploitation and the headscarf are among the issue that teachers consider controversial.

Other issues that teachers considered controversial in Turkey are terrorism and nationalism. There is a terrorism problem which has been going on for more than thirty years in Turkey. Main source of terrorist attacks in Turkey is PKK (Kurdistan Workers Party). Central purpose for the terrorist organization PKK is to establish an independent state of Kurdistan in the region including the southeastern part of Turkey. PKK has been organizing terrible attacks, on people including children, seniors, and women, affecting people from all walks of life. The nationalism developing against terrorism is also among the controversial issue teachers consider in Turkey.

In relation to their area, social studies teachers stated the issues such as Kemalism, democracy, military coupes, and deep state, which are associated with recent events

in Turkey, were among important controversial issues. Science teachers on the other hand stated issues such as cancer and anti-toxic foods and global warming among the controversial issues in Turkey. Whereas social studies teachers stated that in the class they brought up issues that they considered controversial in Turkey and discussed them with their students, science teachers said that they discussed the issues, which are included in the curriculum, with their students in the class.

Gene therapy, euthanasia, human genome project, cloning, and hybrid seeds are among the issues that social studies and science teachers considered the least controversial in Turkey. Because these issues are not much on media agenda; they include scientific knowledge; and people do not have knowledge of these issues, they may have been considered as the least controversial.

Almost all social studies teachers stated the issue of Kemalism was the most discussed issue in the class. Mustafa Kemal Atatürk (1881-1938) was the founder of modern Turkey and the first president. During the establishment of the Republic of Turkey (1923), Atatürk brought a set of reforms that transformed social life in Turkey. Secular and western-style reforms brought by Atatürk evoked negative reactions particularly from the religious portion of population. Many conflicts discussed today in relation to Kemalism are rooted on *secularist vs Islamist* or *Kemalist vs anti-Kemalist* grounds. Furthermore, compulsory teaching of Kemalism topics in class, particularly within social studies classes, may be another reason for in-class disputes.

Teaching Kemalism in Turkey is based on goals in general curricula and general goals of Turkish National Education formed in relation to Basic National Education Law numbered 1739. Thus, raising citizens devoted to Atatürk's Principles and Reforms has some legal basis (Milli Eğitim Temel Kanunu, 1973).

The Majority of social studies teachers stated that they discussed issues of education system, environmental pollution, democracy, laicism, freedom of press, brain drain, terrorism, and nationalism in the class, some social studies teachers, on the other hand, said that they brought up issues of internet, independence of judiciary, Armenian problem, and earthquake to discuss in the class. The other issues that majority of social studies teachers brought up to discuss in the class were human rights, environmental pollution, nationalism, test systems, terrorism, democracy, cultural corruption, unemployment, brain drain, internet, laicism, population, education system, and some political issues. The issues of discussion in the class pointed out by the social studies teachers were also stated by the observers. However, observers stated that a discussion medium was not set up in the social studies classes; no technique to teach controversial issues was used; and teachers only transferred information about these issues. These issues were the topics included in the elementary social studies curriculum. It is observed that teachers considered each topic presented based on curriculum in the class, a controversial issue. Then, it is assumed that teachers do

not know how to teach the controversial issues. In the current research, both all social studies and all science teachers stated that they did not receive any training about how to teach controversial issues, neither during in-service trainings nor back in the university. Studies conducted showed that teachers did not receive training on how to teach controversial issues; they were not confident with leading discussions in class; and they had difficulties with including controversial issues within their lessons (Byford, Lennon, & Russell, 2009; Hess, 2002b; Holden & Hicks, 2007; Onosko, 1996, Oulton et al., 2004; Wilson et al., 2002).

Almost all science teachers stated that evolution theory was a controversial issue in the class. Other issues that science teachers discuss with students in class included: genetically modified foods, environmental pollution, cloning, sexual education, human genome project, nuclear power plants, organ transfer, and gene therapy. In addition, some science teachers stated that they discussed issues such as Kemalism, hydroelectric power plants, earthquake, hybrid seeds, and internet use with students in the class. According to the observations from the science classes, the most frequently discussed issues by science teachers in class were environmental pollution, nuclear power plants, and education system. According to the observation results, other issues that science teachers discussed in the class included internet, genetically modified products, cultural corruption, sexual education, evolution theory, organ transfer, brain drain, violence, and cloning. However, a similar situation of social studies classes was observed in science classes. Observers in the science classes stated that these issues were conveyed to the classroom by teachers but discussions on these issues did not happen. The majority of observers said that teachers tried to teach these issues and prepared students for the test. The basic reason for this may be the standardized test taken at the end of elementary education. Based on the results of this standardized test, students are admitted to the secondary education institutions, science topics are considered critical in this test. It is also obvious in the current study that teachers teach the issues as they are presented in the textbooks without setting up discussion environments and do not take any risks.

Both social studies and science teachers stated that the most frequently encountered problem in discussions was lack of knowledge by students. Teachers said that students could not continue to discuss. Several other studies conducted in different countries also show that students are having difficulties establishing an argument during discussions. While individual characteristics are the main difficulty in this regard, it was found that classroom teacher's role is also a problem (Lin and Mintzes, 2010). It was also suggested that the content of the subject may be a factor (Sadler, 2004; Simonneaux, 2007).

Some social studies teachers stated that students were often influenced by their family's point of view; they occasionally had misconceptions; and it was quite hard to reverse this.

Science teachers stated that students were embarrassed when sexual issues were discussed and overweight children were embarrassed when obesity was discussed. When teachers talk about problems associated with the students in class, in-class observations show that the problems stem from teachers inadequately teaching controversial issues. Observers in social studies classes noted the most frequently encountered problems as chaos during discussions, students not listening to one another, often teachers only lecture, and students are not able to produce ideas due to lack of information, and the same students constantly speaking up.

Observers in the science classes on the other hand pointed to discussion environments not forming in the class and to the classes conducted leading up to the test as a basic problem.

Whereas social studies teachers stated that their priority goals were particularly to raise active citizens and to set up a democratic classroom environment, science teachers pointed to raising scientifically thinking students and increasing students' knowledge as their priority goals. Both social studies and science teachers' goals were to help their students respect diverse views. In addition, some social studies teachers stated their priority goals as increasing students' analytical thinking skills, increasing students' knowledge, altering students' values, and raising scientifically thinking citizens. Some science teachers, on the other hand, defined their priorities as setting up a democratic classroom environment, altering students' behaviors, and increasing students' analytical thinking skills. However, observation results show that social studies teachers' priorities during discussions were to increase students' information and to alter students' attitudes. Observations in the science classes, on the other hand, show that teachers' priority was to increase students' information. Thus, it is clear that teachers expressed what was required during discussions but they were not able to materialize these in class. The IEA researchers reported that open classroom climate for discussion is a significant predictor of civic knowledge, support for democratic values, participation in political discussion, and political engagement (Torney-Purta, Lehmann, Oswald and Schultz, 2001).

During in-class discussions teachers take some positions. Both social studies and science teachers were observed to take similar positions. Some teachers stated that during in-class discussions they explained their position and opinion and encouraged students to declare their positions (4th position). Some teachers, on the other hand, said that they did not state their position but they encouraged students to declare their positions (3rd position). Two social studies teachers and a science teacher pointed out that they made statements of their positions in order for students to accept, about issues that they considered sensitive (2nd position). *In relation to the reason for this, social studies teachers taking the fourth position* stated that if they did not reveal their position, students would not declare their own position.

Science teachers, on the other hand, stated that they revealed their positions in order to encourage students and in order for students not to misunderstand (as in evolution theory issue). Social studies and science teachers taking the third position explained that they preferred this position so as not to influence students. However, the positions stated by the teachers and in-class observations of them conflict. Whereas the teachers stated that they prefer the 4th and 3rd positions, the in-class observations showed that they mainly adopted the 2nd position. Results of observations in social studies classes show that teachers definitely stated their positions about the discussed issue as a priority; they tried to teach the students their positions about the issue; and occasionally about some issues, they told just their positions. NCSS (2007) asserted that controversial issues must be studied in the classroom without the assumption that they are settled in advance or there is only one right answer in matters of dispute. The social studies teacher must approach such issues in a spirit of critical inquiry exposing the students to a variety of ideas, even if they are different from their own. The ways that teachers deal with controversy range from purposeful avoidance of them to one-sided advocacy of particular points of view.

Observations in science classes show that a complete discussion set up was not formed; teachers often stated their positions about the controversial issue and elicited views of a few students and just continued to cover the class. Stradling (1985) reports that teachers 'found procedural neutrality difficult to sustain' as it threatened the rapport they had built up with the class and seemed to cast doubt on their personal credibility. Kelly (1986) proposed 'committed impartiality' in which the teacher attempts to provide all sides of an argument as well as share their own views with the class. Although controversial subjects hold an importance place in both social studies and science lessons, there is no course or content pre-service teachers' education about teaching controversial subjects to students. In addition, it is clear that no adequate education was given to in-service teachers regarding controversial subjects. Likewise, in this study, all participating teachers have stated that they had not received any training about teaching controversial subjects. However, teaching controversial subjects require peculiar methods, techniques and strategies due to the nature of said subjects. Teachers should be able to establish an unbiased, reliable discussion platform for this issues. They also should be able to contribute to students' certain skills such as high level thinking, cooperating with peers, resolving conflicts, achieving democratic participation, presenting and defending own ideas with evidence-based facts. Another result of this study shows that despite these skills are present within Science and Social Studies curricula, they do not reflect in the classroom due to issues and difficulties in teachers' education and teaching methods.

In brief, social studies and science teachers give place to various controversial issues in the classroom. However, since they are not trained about the education

of these controversial issues, they are unable to use these issues on behalf of students. Besides, teachers may encounter with a number of problems during these discussions and display anti-democratic practices.

References

- Altınay, A. G. & Arat.Y. (2007). *Türkiye'de kadına yönelik şiddet*. Punto Baskı Çözümleri. İstanbul.
- Avaroğulları, M. (2014). Conception of controversial issues among social studies teacher candidates. *Aducational Research and Reviews*. Vol. 9 (20).pp. 1013-1020.
- Ayaz, R., Çıra, F., & Kara, İ. (2007). *Kadına Yönelik Şiddet Kadın Danışma Merkezleri Ağı Kadın Yönelik Şiddet Veri Tabanı Oluşturma Projesi*. Kadın Dayanışma Vakfı, Dunet Baskı.
- Byford, J., S. Lennon, & W.S. Russell III. (2009). Teaching controversial issues in the social studies: A research study of high school teachers. *Clearing House*, 82(4) 165-170.
- Camicia, S. & Dobson D. (2010). Learning how to respond to current events: Partner journals between U. S. preservice teachers and children. *Teaching and Teacher Education* Volume 26, Issue 3, P. 576-582
- Clabough, J., Philpott, S., McConkey, L., & Turner, T.N. (2011). Teachers' struggles with controversial issues: Facing the demon. *National Social Science Journal*, 38(2).
- Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education*. London: RoutledgeFalmer.
- Demiral, Ü. (2014). *Fen Bilgisi Öğretmen Adaylarının Sosyobilimsel Bir Konudaki Argümantasyon Becerilerinin Eleştirel Düşünme Ve Bilgi Düzeyleri Açısından İncelenmesi:Gdo Örneği*. Karadeniz Teknik Üniversitesi. Eğitim bilimleri enstitüsü. Yayınlanmamış Doktora Tezi. Trabzon.
- Dewhurst, D. (1992) The teaching of controversial issues. *Journal of Philosophy of Education*, 26(2), 153-163.
- Ersoy, F. (2010). Social studies teacher candidates' views on the controversial issues incorporated into their courses in Turkey. *Teaching and Teacher Education*, 26, 323-334.
- Ersoy, F. (2013). Sosyal bilgiler öğretmen adaylarının tartışmalı konulara katılımını etkileyen etmenler. *Journal of Social Studies Education Research*, 4(1), 24-48.
- Evans, R., P. Avery, & P. Pederson. (2000). Taboo topics: Cultural restraint on teaching social studies. *Clearinghouse*, 73 (5), 295-302.
- Gore, J. (1999). HSIE Syllabus and controversial issues, *Curriculum Support for Teaching HSIE K-6*, (4:1).
- Hess, D. (2009). *Controversy in the classroom: The democratic value of discussion*. NY: Routledge.

- Hess, D. (2005). How do teachers' political views influence teaching about controversial issues? *Social Education*, 69 (1), 47-48.
- Hess, D. (2004). Controversies about Controversial Issues in Democratic Education" PS: Political Science & Politics. 37 (2), 257-261
- Hess, D. (2002a). The pedagogical issues of teaching controversial public issues discussions in secondary social studies classrooms. *The School Field*, 13 (3/4), 113-131.
- Hess, D. (2002b). Discussing controversial public issues in secondary social studies classroom: Learning from skilled teachers. *Theory and Research in Social Education*, 30 (1), 10-41.
- Hess, D. (2001a). Teaching students to discuss controversial public issues. Bloomington: Clearinghouse for Social Studies/Social Science Education. (ERIC Document Reproduction Service EDO-SO-2001-7).
- Hess, D. (2001b, November). Teaching about the discussion of controversial public issues in secondary social studies methods courses. Paper presented at the annual meeting of the College and University Faculty Association of the National Council for the Social Studies, Washington, D.C
- Holden, C., & Hicks, D. (2007). Making global connections. *Teaching and Teacher Education*, 23, 13-23.
- Kalaycıoğlu S, Tılıç HR (2001). *Evlerimizdeki gündelikçi kadınlar*. İstanbul: Su Yayınları.
- Kelly, T. E. (1986). Discussing controversial issues: Four perspectives on the teacher's role. *Theory and Research in Social Education*, 19(2), 113-138.
- Lin, S. S. and Mintzes, J. J. (2010). Learning argumentation skills through instruction in socioscientific issues: The effect of ability level. *International Journal of Science and Mathematics Education*, 8(6), 993-1017.
- Lockwood, A.L. (1996). Controversial issues: The teacher's crucial role. *Social Education*, 60, 28-31.
- MEB. (2005a). *İlköğretim sosyal bilgiler dersi 6-7. sınıflar öğretim programı ve kılavuzu* (taslak basım). Ankara: MEB Yay.
- MEB. (2005b). Talim Terbiye Kurulu Başkanlığı. İlköğretim Fen ve Teknoloji Dersi (6, 7 ve 8.sınıflar) Öğretim Programı. Ankara: MEB Yay.
- Milli Eğitim Temel Kanunu (1973). *Resmî Gazete*. Yayımlı Tarihi: 24.06.1973. Sayısı: 14574. Numarası: 1739.
- National Council for the Social Studies (2007). Academic freedom and the social studies teacher. Retrieved from <http://www.socialstudies.org/positions/academicfreedom>
- Onosko, J. (1996). Exploring issues with students despite barriers. *Social Education*, 60(1), 22-27.
- Oulton, C., Day, V., Dillon, J., & Grace, M. (2004). Controversial issues – teachers' attitudes and practices in the context of citizenship education. *Oxford Review of Education*, 30(4), 490-507.
- Parker, W. C. (1996). *Curriculum for democracy*. In R. Soder (Ed.), *Democracy, Education, and the Schools* (pp. 182-210). San Francisco: Jossey-Bass Publishers.
- Philpott, S., Clabough, J., McConkey, L., & Turner, T.N. (2011) Controversial issues: To teach or not to teach? That is the question! *The Georgia Social Studies Journal*, 1(1), 32-44.
- Reitano, P., Kivunja, C. & Porter, K. (2008). *Teaching controversial issues in schools to prepare children for a sustainable global village*. Paper presented at the Australian Association for Research in Education (AARE) Conference Brisbane, November 30-December 4.
- Ritchie, J. & Lewis, J. (2003). *Qualitative research practice: A Guide for Social Science Students and Researchers*. London: Sage Publications.
- Sadler, T. D. (2004). Informal reasoning regarding SSI: A critical review of research. *Journal of Research in Science Teaching*, 41(5), 513-536.
- Sadler, T. D. (2011). Socioscientific issues in the classroom: Teaching, learning and research. Contemporary trends and issues in science education (Vol. 39). New York: Springer.
- Sadler, T. D. and Zeidler, D. L. (2005). Patterns of informal reasoning in the context of socioscientific decision-making. *Journal of Research in Science Teaching*, 42(1), 112-138.
- Seçgin, F. (2009). Öğretmen adaylarının tartışmalı konuların öğretimine ilişkin algı, tutum ve görüşleri. Yayınlanmamış yüksek lisans tezi. Gaziosmanpaşa Üniversitesi, Sosyal Bilimler Enstitüsü, Tokat.
- Simonneaux, L. (2007). Argumentation in socioscientific contexts. In S. Erduran & M. P. Jiménez-Aleixandre (Eds.), *Argumentation in science education: Perspectives from classroom-based research* (pp. 179-199). Dordrecht, The Netherlands: Springer.
- Soley, M. (1996). If it's controversial, why teach it. *Social Education*, (60) 9-14.
- Sönmez, A. & Kılıç, A. (2012). Preservice science teachers' self-efficacy beliefs about teaching GM Foods: The potential effects of some psychometric factors. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education*, 6(2), 49-76.
- Stradling, R. (1984). "Controversial Issues in the Classroom." In: *Teaching Controversial Issues*, edited by Sidney Hill and Colin Reid. London: Edward Arnold.
- Stradling, B. (1985). Controversial issues in the curriculum. *Bulletin of Environmental Education*, 170, 9-13.
- TNSA (Türkiye Nüfus ve Sağlık Araştırması) (2003) Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü. Sağlık Bakanlığı Ana Çocuk Sağlığı Aile Planlaması Genel Müdürlüğü, Devlet Planlama Teşkilatı ve Avrupa Birliği.

Retrieved from: <http://www.hips.hacettepe.edu.tr/tnsa2003>.

Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries: Civic knowledge and engagement at age fourteen*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).

Turan, Ş. (1990). *Türk kültür tarihi*. Bilgi Yayınevi, Ankara.

Vatandaş C (2003). *Aile ve şiddet: Türkiye’de eşler arası şiddet*. 1.Baskı, Ankara: Uyum Ajans.

Yankelovich, D. (1999). *The magic of dialogue, transforming conflict into cooperation*. New York, New York: Simon & Schuster.

Wellington, J. J. (Ed). (1986). *Controversial issues in the curriculum*. Oxford: Blackwell. www.oxfam.org.uk/publications.

Wilson, E. K., Hass, M. E., Lauglin, M. A. & Sunal, C. S. (2002). Teacher’s perspectives on incorporating current controversial issues into the social studies curriculum. *The International Social Studies Forum*, 2, 31-45.

Yıldırım, A., ve Şimşek, H. (2005). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayınevi.

Yılmaz, K. (2012). Tartışmalı ve tabu konuların incelenmesi: Sosyal bilgiler öğretmenlerinin görüşleri. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 9(18), 201-225.

Endnote

¹ The study was presented in International Social Studies Symposium (2014). Gazi University, in Ankara, Turkey.