Mevlana International Journal of Education (MIJE) Vol. 2(3) INVITED ARICLE
Special Issue: Inquiry in Science Education & Argumentation Based Science Inquiry,
pp. 95-108 , 30 December, 2012 Available online at http://mije.mevlana.edu.tr/

Eliciting Secondary Education Pupils' Views on Euthanasia Through Argumentative Paragraphs

Melike OZER KESKIN*
Gazi University, Gazi Faculty of Education, Ankara, TURKEY

Ismet KURT
Gazi University, Gazi Faculty of Education, Ankara, TURKEY

Nilay KESKIN SAMANCI
Gazi University, Gazi Faculty of Education, Ankara, TURKEY

Article history
Received:
21. 12. 2012

Received in revised form:
28. 12. 2012

Accepted:
29.12.2012

Key words:
ethics, morals, bioethics, ethical dilemma, euthanasia, argumentative paragraph

This study aims to elicit secondary education pupils' views on euthanasia based on a survey model and with a study group of 253 pupils in year 9 studying in the city of Ankara in the school year 2010-2011. The study makes use of a combination of qualitative and quantitative research techniques as well as a Questionnaire for Personal Particulars in order to clarify the pupils' demographics in data collection, and scenarios based on ethical dilemmas about active and passive euthanasia in order to elicit their views on the issue. The pupils' views were elicited through the argumentative paragraphs that they were asked to write on the situations given in the scenarios. Of the qualitative data analysis techniques, the content analysis method was selected for the analysis of the argumentative paragraphs on the scenarios. In light of the data yielded by the content analysis, the pupils' basic ethical guidelines in their decision-making processes were studied taking into account such variables as gender, school type, and family's income.

Introduction

Science and technology identify societies' and individuals' needs and work towards satisfying these needs. In our age, societies take advantage of scientific and technological advances while at the same time they try to adapt to the daily impact of these advances. This has resulted in the restructuring of modern educational curricula in which students also consider the social, cultural, environmental, political, and ethical components of science and technology, and "sociological issues" are a new approach in science education. This approach views pupils as the future citizens and decision-makers and presents processes based on argumentation in order to raise their interest in scientific issues. Learning environments of this kind improve individuals' thinking and reasoning skills (Chen & Stroup, 1993) because, in order to develop deep understanding and evaluative skills, students must acquire the ability to construct arguments and engage in dialogic thinking (Driver et al., 2000).

Euthanasia and Ethical Debates

Humans use certain criteria to make sense of the beings around them and, in identifying, evaluating, and appreciating these beings, they make use of the impressions that they have. These emotional impressions are generally named "**values"** (Yeşil & Aydın, 2007). Every human being has a set of beliefs and values of their own, shaped by the cultural values of the society they live in.

* Correspondence: , Gazi University, Gazi Faculty of Education, Ankara, TURKEY

The individual displays an ethical attitude according to these beliefs and values. Although employed interchangeably in daily use, the concepts of "ethics" and "morals" are in fact different in meaning. While ethics is used in reference to universal values, morals refer to attitudes and behaviours encompassed by traditions, customs, and habits, which may vary from one society to another (Aydın, 2001, p: 5). Ethics tackles the moral issues in our personal and social lives and seeks to identify the correct behaviour (Ilgaz & Bilgili, 2006). Bioethics, on the other hand, is concerned with the moral issues caused by the advances in biological sciences (Williams, 2005). The term itself was coined in 1970 in the hope of balancing scientific progress with the values system. A link between scientific data and the values system, bioethics has in recent years gained a wider terminological significance with the growing amount of work in medical ethics and healthcare ethics (Işıl Ülman, 2010). Further, bioethics applies to all situations where human life and other life forms as well as human liberty and dignity are imperilled by scientific research and modern technologies with unforeseeable consequences (Çobanoğlu & Aydoğdu, 2009).

An individual faced with two conflicting values in a decision-making process, in other words an ethical dilemma, has to make a choice. Ethical dilemmas are situations with no right answers or hard rules to follow for a solution (Elçigil *et al*., 2011). An argumentation process comes into play in deciding on the better alternative and this process requires all alternatives to be assessed and thought out. Today, genetically modified organisms, genetic screening tests, reproductive and therapeutic cloning, reproductive technologies, and embryonic stem cell research are all subjects of ethical debates. Euthanasia, too, is one of them.

Progressing day by day in light of scientific developments, medicine has opened to debate such issues as prolonging human life, raising the quality of life, alleviating pain, and ensuring a peaceful death (Kumaş, 2005). Fodder for medical, ethical, social, and religious debates all over the world (Tepehan et al., 2011), euthanasia is defined as allowing terminally ill and greatly suffering patients to die upon their request in order to put an end to their suffering (Mandıracıoğlu & Özsoy, 1995). When medicine is unable to cure certain diseases and technology can only prolong life rather than raise its quality, such patients claim their "right to die" (İçelli & Demet, 2001).

Those opposing euthanasia do so in the belief that there is no need to accelerate death, which is bound to come anyway, that the right to live prevails over all other rights, and that wishing for euthanasia is always a sign of mental trouble (Gündüz et al., 1996). They also stress that "terminally ill" is a vague term. Those in favour, on the other hand, believe that choosing to die is personal freedom, that the right to live gains significance only with the right to die, that every individual has a right to dignified life, that merely breathing cannot be considered living, and that euthanasia is a natural right of the individual. All these views are evidence that euthanasia is a concept that gives rise to an ethical dilemma.

Many studies have sought to find a position on euthanasia (Akın, 2007; Ersoy & Altun, 2001; Gündüz et al., 1996; Karahisar, 2006; Mandıracıoğlu & Özsoy, 1995; Nehir et al., 2005; Oğuz et al., 1996; Tepehan et al., 2011). These studies have mostly elicited the views of medical students, nursing and midwifery students, and physicians, as they are in the healthcare sector. There are also studies in which university students of social sciences and natural sciences as well as terminally ill patients were the participants. All this research has made use of Likert-type scales in order to elicit the participants' views on euthanasia (Akın, 2007; Oğuz *et al*., 1996;), open-ended questions in order to find out nurses' positions on potential requests from terminally ill patients to assist them to die (Ersoy & Altun, 2001), and multiple-choice questionnaires in order to find out healthcare professionals' approach to euthanasia (Gündüz *et al*., 1996).

People are faced with ethical dilemmas on a variety of issues in their daily lives. Considering the rapid advances in science and technology, all societies should be given the opportunity to reach a

position through an analysis of benefits and risks, and to make a decision that has an impact on their and their children's future. Also, the individuals must be taught that ethical principles such as autonomy and justice need to be protected in this process (Macer, 2008, p: 4), for studies show that, in order to form an opinion on sociological issues, individuals need not only scientific background (Olsher & Dreyfus, 1999) but also moral reasoning skills (Hanegan et al., 2008; Sadler & Zeidler, 2005;). From this point of view, processes where students are given the opportunity to construct arguments on sociological issues are more and more of a necessity in educational systems, as debating "values" on sociological issues takes argumentation skills. According to Dori et al. (2003), when it comes to sociological issues, the individual needs the following assessment skills in an argumentative process:

- analysing environmental and moral issues,
- asking questions,
- construct an argument and
- applying these skills to own individual thinking system.

Improving these skills is only possible through argumentative processes where sociological issues are tackled. In these kinds of processes, teachers and students try to have a firm grasp of the subject and evaluate its pros and cons also considering the parties concerned. At the same time, students could engage in small and large group debates and realize different points of view, thereby gaining thinking and decision-making skills using ethical values (Pedretti, 1999).

Tackling sociological issues in a questioning and explaining process in a Socratic way is also important for the moral development and ethical maturity of the individual, in addition to the above-mentioned skills (Macer, 2008), for this argumentation-based process requires first and foremost a value clarification on the part of the individual. In teaching values, the value clarification approach enables the individual to study the available alternatives and probabilities and to realize their own values. The individual later shares these values with others and makes comparisons and analyses where necessary (Doğanay, 2006, p. 268-269; Güngör, 1993).

For this reason, it is crucial to reveal the arguments developed by pupils faced with an ethical situation or dilemma and, thereby, the values that they have. Having reviewed the literature, we have come across no study on eliciting secondary education pupils' views on euthanasia. That is why the present study aims to reveal these opinions through scenarios based on ethical dilemmas and find an answer to the following research question: "What are ninth-year secondary school pupils' views on euthanasia?" The pupils' opinions on euthanasia were studied taking into account such variables as gender, school type, and family's income.

Method

Research Methodology and Data Collection Instruments

A triangulation methodology combining qualitative and quantitative data collection techniques was used in the study. The "Questionnaire for Personal Particulars", designed to find out the basic demographics of the pupils forming the study group, was administered. This questionnaire asked about the pupils' school type, their gender, their parents' education and work status, and their family income, in order to obtain data on the research questions and the variables studied.

Scenarios based on ethical dilemmas were used to elicit the participating pupils' views on euthanasia because ethical dilemmas give students the opportunity to state, clarify, and use their values. So they develop their decision making skills and engage in moral reasoning processes (Stahl, 1979).

In the process of designing the scenarios, the literature on ethical debates on euthanasia was carefully reviewed and these debates were found to focus on "active euthanasia" and "passive euthanasia".

As far as the doctor's role is concerned, euthanasia could be considered active or passive. **Active euthanasia** involves medical interventions intended to terminate a terminally ill patient's life whereas **passive euthanasia** involves not doing what would be necessary to keep the patient alive, such as operating the life support unit (Çobanoğlu, 2009, p. 204). This is why various arguments can be put forward leading to various interpretations of euthanasia. This prompted the design of two scenarios, one involving active euthanasia and the other involving passive euthanasia. After consultation with field experts, the two scenarios based on ethical dilemmas were written up. They were then examined by a Turkish language expert for linguistic clarity and spelling. After the necessary amendments and corrections, they were given to the pupils forming the study group. In the presence of the second author of this paper, the pupils were asked to explain their views on the questions following the scenarios through argumentative paragraphs.

The process of argumentative paragraph writing involves the individual intellectually advancing their arguments and supporting them with evidence (Toulmin, 1958). The process also involves the students defending their own views, looking at the issue from different perspectives, and evidence-based reasoning (Newton et al., 1999). In this study, the pupils were asked to engage in moral reasoning by writing an argumentative paragraph on the scenarios and reflect their values in this way.

Of the qualitative data analysis techniques, the content analysis method was selected for the analysis of the argumentative paragraphs that the pupils wrote on the questions on the scenarios. According to Yıldırım and Şimşek (2006, p. 227), the primary purpose in content analysis is to reach concepts and relations to make sense of the data collected. Coding is the first step in content analysis and involves separating the data into meaningful chunks and giving each one a **code**. Before proceeding to content analysis, the researchers prepared the codes in light of the relevant literature and ethical principles. As for coding in the process of content analysis, the pupils' answers about the scenarios were taken as codes. In the forming of the codes, special attention was paid to the values underlying the pupils' answers. The answers were then classified according to the codes and the upper themes categorizing the codes were found. Universal ethical principles were taken as guidelines in designing the upper themes.

The process of content analysis is detailed below through the illustration of the "active euthanasia" scenario:

"Scenario 1: Mr Cevdet, who is terminally ill, is in unbearable pain. In full consciousness and under no outside influence, he has willingly asked his doctors to terminate his life. How do you react to Mr Cevdet's wish? Why?"

In the process of content analysis, the answers in the argumentative paragraphs were coded by the researchers in light of both the pupils' answers and the relevant literature and ethical principles. The coding samples on the active euthanasia scenario are given below:

- From a religious point of view, it is tantamount to suicide and therefore a sin.
- I think he needs psychological therapy to cope with the pain.
- Perhaps not all treatment options available have been tried.
- With technological advances, a cure could be found in the future. He needs to accept and live with his condition.
- I think he has the right to refuse treatment in his free will.

- Even if he lives on, he will be in unbearable pain and dependent on others.
- Human life is valuable and I think human beings are strong enough to overcome the difficulties they encounter.

The codes used in content analysis were transferred onto an Excel sheet. Any answers from the pupils that did not go under a code were placed in the "other" column. In order to ensure the internal validity of the study, all the data was first coded by the first author. A randomly selected 20% of the data was then independently coded by the two other authors. Finally, the independent coding processes by the three authors were studied for consistency, which was found to stand at around 91%.

Upon completion of the coding of the argumentative paragraphs, the upper themes were found in light of universal ethical principles. These upper themes and their explanations are given below:

- The Utilitarian Approach is about doing the most good and causing the least harm in an ethical action.
- The Rights Approach is about respecting the rights of all parties and partners concerned.
- The Justice Approach is about all humans having equal standards and any inequalities being defendable by objective criteria.
- The Virtue Approach is about the ethical action being in line with values such as honesty, tolerance, and courage, contributing to the progress of all humanity (SCU, 2011).
- The Normative Approach sets forth specific conditions in the decision-making process.
- The Religious Approach is about putting religious standards first in an ethical dilemma.
- Preference for the Natural: In this approach, natural things are considered good and interference with the nature should be limited.
- The Scientific Approach is about putting scientific standards first in an ethical dilemma.
- Belief in Humans' Superiority to Other Living Beings: Humans are more privileged and valuable than other living beings and this should be prioritized in all actions (Keskin Samancı, 2009).

After the themes were set, the codes from the pupils' answers were analysed in light of universal ethical values and each choice was grouped under a theme for the value approach it represented.

Study Group

The study group of the research was composed of 253 pupils going to four Anatolian High Schools and four common high schools, all randomly selected out of the schools in Ankara. In light of the data from the Questionnaire for Personal Particulars, Table 1 shows the gender distribution of the pupils in all schools:

Table 1: Number of Participating Pupils and Their Gender Distribution in Schools

ool	**The number of pupils**	**Gender**	
		Female (f)	**Male (f)**
Ogretmen Necla Kizilbag Anatolian High School	30	16	14
Kalaba Anatolian High School	28	17	11
Kizilcahamam Anatolian High School	29	11	18
Beypazari Nurettin Karaoguz Vakfi Anatolian High School	29	16	13
Dikmen High School	42	17	24
Rauf Denktas High School	32	18	13
Kızılcahamam High School	28	16	12
Beypazari High School	35	17	15
Total	**248***	**128**	**120**

*5 pupils did not indicate their gender.

Table 1 shows that 51.6% of the pupils were female (n=128) and 48.4% were male (n=120). Figure 1 shows comparative data about the educational status of the participating pupils' parents.

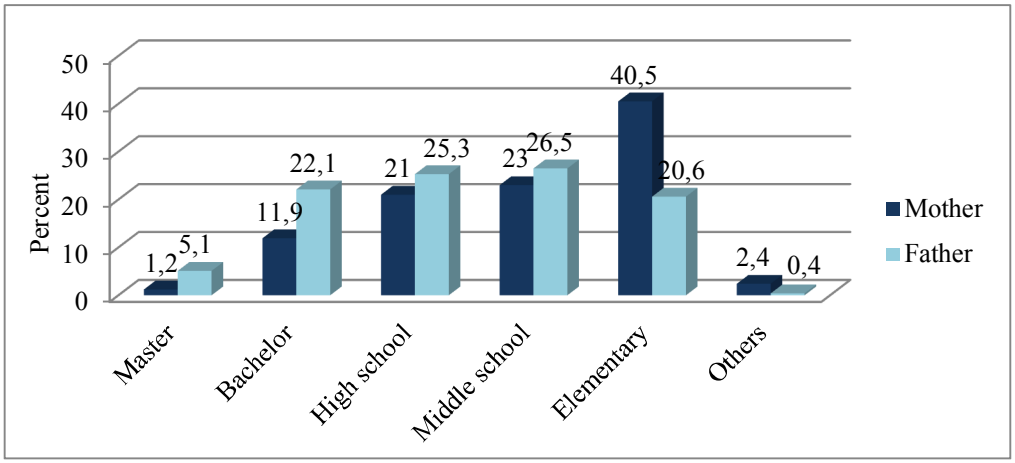

Figure 1: Educational Status of the Participating Pupils' Parents.

Figure 1 shows that the majority of the mothers are primary school graduates (40.5%). They are followed by high school (21%), and university (11.9%) graduates. The highest percentage of the fathers is of secondary school graduates at 26.5%. 25.3% of them finished high school, 22.1% of them graduated from university, and 20.6% are primary school graduates. Figure 2 shows the occupational status of the participating pupils' parents.

Figure 2: Occupational Status of the Participating Pupils' Parents.

Figure 2 shows that the majority of the fathers (87.3%) are employed whereas the majority of the mothers (73%) do not work. In addition to the educational and occupational status of the pupils' parents, their family income was also asked about in order to get a clearer picture of the families' socio-economic standing. This is shown in Figure 3.

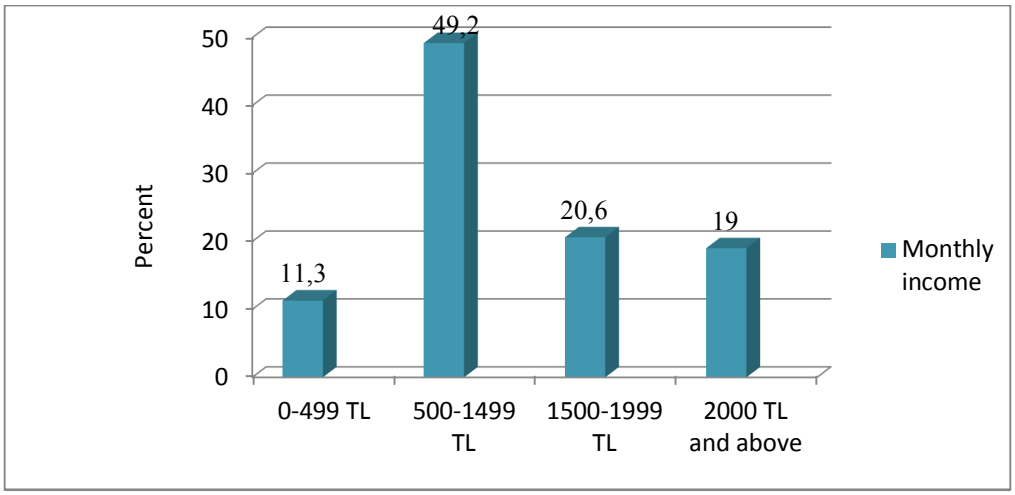

Figure 3: Income of Participating Pupils' Families.

Figure 3 shows that 60.5% of the pupils' families have a monthly income below TL 1,500 and 39.6% have a monthly income of TL 1,500 or over.

Findings and Interpretations

Pupils' Views on Active Euthanasia

In order to elicit the pupils' views on active euthanasia, they were given Scenario 1 (see p. 8) and asked to write argumentative paragraphs on this ethical dilemma. The results of the thematic coding of the pupils' answers by universal ethical principles are summarized in Table 2.

Table 2: Distribution of the Pupils' Views on Active Euthanasia by Upper Themes

Final decision	Themes	(f)	%
Against	Religious Approach	21	10
	Normative Approach	16	7,6
	Scientific Approach	32	15,2
	Virtue Approach	28	13,3
	Total	**97**	**46,1**
For	Rights Approach	23	11
	Utilitarian Approach	89	42,4
	Humans' Superiority	1	0,5
	Total	**113**	**53,9**
	Grand total	**210***	**100**

*210 pupils' argumentative paragraphs were taken into consideration.

Of the 210 pupils whose answers were considered in Table 2, 46.1% oppose active euthanasia while 53.9% are in favour of it. The Chi-square harmony test was conducted to test the difference between the expected and observed frequencies of active euthanasia support and opposition. The results indicate that the difference is statistically insignificant (X^2= 2,42, sd=1, p=,120). This could be interpreted as an equal tendency to support or oppose active euthanasia. 15.2% of those opposing active euthanasia were found to do so on scientific grounds. The analysis of the pupils' argumentative paragraphs showed approaches like "*With technological advances, a cure could be found in the future"*. The scientific approach is followed by the virtue approach with a rate of 13.3%. With this approach, the pupils held that *"... instead of choosing to die, he should be patient and learn to live with his condition"*. 10% opposed active euthanasia on religious grounds and 7.6%

on normative grounds. With the religious approach, the pupils held that *"... God gives life. The patient should not be able to decide"* and with the normative approach the pupils put forward a prerequisite suggesting that *"... he may be psychologically unstable. He should be offered psychological support first and then asked to review his wish"*.

Table 2 shows that 53.9% of the pupils are in favour of active euthanasia. A study of their ethical approaches yielded 11% for the rights approach and 42.4% for the utilitarian approach. With the former approach, there were suggestions like *"... this only concerns the patient himself. The individual has the right to make decisions with their free will and nobody should interfere"* and with the latter there were calculations of benefit and harm: *"... even if he lives on, he will be dependent on others. It would be better if he did not live that way"*.

The pupils' ethical approaches to the scenario were also studied in relation to a number of variables. First the pupils' gender and its impact on their ethical approaches in the decision-making process was studied. The Chi-square test results showing the gender-related differences in the pupils' ethical approaches are given in Table 3.

Table 3: Chi-Square Test Results Showing the Gender-Related Differences in the Pupils' Ethical Approaches to the Active Euthanasia Scenario

		Approach							
Gender		**U**	**R**	**V**	**N**	**Re**	**S**	**H**	**Total**
Female	**f**	46	12	14	6	11	18	1	**108**
	%	42,6	11,1	13	5,6	10,2	16,7	0,9	**100**
Male	**f**	40	11	14	10	10	14	0	**99**
	%	40,4	11,1	14,1	10,1	10,1	14,1	0	**100**
Total	**f**	86	23	28	16	21	32	1	**207**
	%	41,5	11,1	13,5	7,7	10,1	15,5	0,5	**100**

U: Utilitarian Approach, R: Rights Approach, V: Virtue Approach, N: Normative Approach, Re: Religious Approach, S: Scientific Approach, H: Humans' Superiority

Table 3 shows no significant relation between the pupils' gender and their ethical approach(X^2 = 2,623; sd=6; p= ,854). In other words, the pupils' ethical approaches to active euthanasia are therefore independent of their gender.

The pupils in the study group went to two types of high school: Anatolian and common. Therefore, any impact of the school type on the pupils' decision-making processes was also studied. The Chi-square test results suggest no link between the school type and the pupils' decisions (X^2 = 7,301; sd=6; p= ,294). The Chi-square test results showing the school type-related differences in the pupils' ethical approaches to Scenario 1 are given in Table 4.

Table 4: Chi-square Test Results Showing the School Type-Related Differences in the Pupils' Ethical Approaches to the Active Euthanasia Scenario

		Approach							
School Type		**U**	**R**	**V**	**N**	**Re**	**S**	**H**	**Total**
Common	**f**	51	10	19	6	9	18	1	**114**
	%	44,7	8,8	16,7	5,3	7,9	15,8	0,9	**100**
Anatolian	**f**	38	13	9	10	12	14	0	**96**
	%	39,6	13,5	9,4	10,4	12,5	14,6	0	**100**
Total	**f**	89	23	28	16	21	32	1	**210**
	%	42,4	11	13,3	7,6	10	15,2	0,5	**100**

U: Utilitarian Approach, R: Rights Approach, V: Virtue Approach, N: Normative Approach, Re: Religious Approach, S: Scientific Approach, H: Humans' Superiority

Table 4 shows no significant relation between the pupils' school type and their ethical approach.

The study also looked at the impact of the income levels of the pupils' families on their preferred ethical approaches. The family income levels were divided into two groups: lower (below TL 1,500) and upper (TL 1,500 and over). The Chi-square test results showing the income level-related differences in the pupils' ethical approaches are given in Table 5.

Table 5: Chi-square Test Results Showing the Income Level-Related Differences in the Pupils' Ethical Approaches to the Active Euthanasia Scenario

Income Level		Approach							
		U	**R**	**V**	**N**	**Re**	**S**	**H**	**Total**
Lower	**f**	48	15	18	9	10	23	1	**124**
	%	38,7	12,1	14,5	7,3	8,1	18,5	0,8	**100**
Upper	**f**	40	8	10	5	11	8	0	**82**
	%	48,8	9,8	12,2	6,1	13,4	9,8	0	**100**
Total	**f**	88	23	28	14	21	31	1	**206**
	%	42,7	11,2	13,6	6,8	10,2	15	0,5	**100**

U: Utilitarian Approach, R: Rights Approach, V: Virtue Approach, N: Normative Approach, Re: Religious Approach, S: Scientific Approach, H: Humans' Superiority

Table 5 shows no statistically significant relation between the upper and lower income groups and the pupils' ethical approaches (X^2 = 6,290; sd=6; p= ,391). The pupils' ethical approaches to active euthanasia could therefore be considered independent of their families' income level.

Pupils' Views on Passive Euthanasia

In order to elicit the pupils' views on passive euthanasia, they were given the scenario below and asked to write argumentative paragraphs on this ethical dilemma.

"Scenario 2: Mrs Handan, who is terminally ill and on life support, has lost consciousness. Believing that nothing further can be done, her family has decided to have the life support unit unplugged. How do you react to the decision of the patient's family? Why?"

The results of the thematic coding of the pupils' answers to Scenario 2 on passive euthanasia are summarized in Table 6.

Table 6: Distribution of the Pupils' Views on Passive Euthanasia by Upper Themes

Final decision	**Themes**	**(f)**	**%**
Against	Rights Approach	20	10,1
	Religious Approach	8	4
	Normative Approach	14	7
	Scientific Approach	25	12,6
	Total	**67**	**33,7**
For	Utilitarian Approach	62	31,2
	Virtue (Value) Approach	60	30,1
	Rights Approach	10	5
	Total	**132**	**66,3**
	Grand Total	**199***	**100**

*199 pupils' argumentative paragraphs were taken into consideration.

Of the 199 pupils whose answers were considered in Table 6, 33.7% oppose passive euthanasia while 66.3% are in favour of it. The Chi-square harmony test was conducted to test the difference between the expected and observed frequencies of passive euthanasia support and opposition. The results indicate that the difference is statistically significant (X^2= 9,563; sd=1, p=, 002). This could

be interpreted as a tendency to support passive euthanasia. 10.1% of those opposing passive euthanasia were found to do so with the rights approach. The analysis of the pupils' argumentative paragraphs showed approaches like "… *The patient is unconscious; her family cannot make such a decision on her behalf"*. Those opposing passive euthanasia also do so on scientific grounds (12.6%), normative grounds (7%), and religious grounds (4%). With the normative approach, the pupils put forward a prerequisite suggesting that *"... such a decision can only be taken by the doctors and it should be left up to them"*.

Table 6 shows that 66.3% of the pupils are in favour of passive euthanasia. A study of their ethical approaches yielded 31.2% for the utilitarian approach and 30.1% for the virtue approach. With the former approach, there were suggestions like *"... even if she lives on, she will be in need of others. It would be very difficult for her and her family alike"* and with the latter there were examples of reasoning like: *"... an unconscious person is identical as dead. The resources would be better spent on treatable patients"*. Those with the rights approach were of the opinion that *"... her family do have such a right and they can decide on her behalf"*.

The pupils' ethical approaches to the scenario were also studied in relation to a number of variables. First the pupils' gender and its impact on their ethical approaches in the decision-making process was studied. The Chi-square test results showing the gender-related differences in the pupils' ethical approaches are given in Table 7.

Table 7: hi-square Test Results Showing the Gender-Related Differences in the Pupils' Ethical Approaches to the Passive Euthanasia Scenario

Gender		Approach						
		U	R	V	N	Re	S	Total
Female	**f**	25	17	33	7	3	16	**101**
	%	24,8	16,8	32,7	6,9	3	15,8	**100**
Male	**f**	37	12	26	7	5	9	**96**
	%	38,5	12,5	27,1	7,3	5,2	9,4	**100**
Total	**f**	62	29	59	14	8	25	**197**
	%	31,5	14,7	29,9	7,1	4,1	12,7	**100**

U: Utilitarian Approach, R: Rights Approach, V: Virtue Approach, N: Normative Approach, Re: Religious Approach, S: Scientific Approach.

Table 7 shows no significant relation between the pupils' gender and their ethical approach to the passive euthanasia scenario (X^2 = 6,352, sd=5, p= ,273).

The type of the school attended by the pupils in the study group and its impact on their ethical approaches to the passive euthanasia scenario has also been looked at. Table 8 shows the Chi-square test results showing the school type-related differences in the pupils' ethical approaches to the passive euthanasia scenario in the decision-making process.

Table 8: Chi-square Test Results Showing the School Type-Related Differences in the Pupils' Ethical Approaches to the Passive Euthanasia Scenario

School type		Approach						
		U	R	V	N	Re	S	Total
Common	**f**	35	13	31	9	4	14	**106**
	%	33	12,3	29,2	8,5	3,8	13,2	**100**
Anatolian	**f**	27	17	29	5	4	11	**93**
	%	29	18,3	31,2	5,4	4,3	11,8	**100**
Total	**f**	62	30	60	14	8	25	**199**
	%	31,2	15,1	30,2	7	4	12,6	**100**

U: Utilitarian Approach, R: Rights Approach, V: Virtue Approach, N: Normative Approach, Re: Religious Approach, S: Scientific Approach.

Table 8 shows no significant relation between the pupils' school type and their ethical approach to passive euthanasia (X^2 = 2,296; sd=5; p= ,807).

The study also looked at the impact of the income levels of the pupils' families on their preferred ethical approaches. The Chi-square test results showing the pre-determined income level-related differences in the pupils' ethical approaches are given in Table 9.

Table 9: Chi-square Test Results Showing the Income Level-Related Differences in the Pupils' Ethical Approaches to the Passive Euthanasia Scenario

Income level		Approach						
		U	**R**	**V**	**N**	**Re**	**S**	**Total**
Lower	**f**	38	16	35	11	5	14	**119**
	%	31,9	13,4	29,4	9,2	4,2	11,8	**100**
Upper	**f**	23	13	24	3	3	9	**75**
	%	30,7	17,3	32	4	4	12	**100**
Total	**f**	61	29	59	14	8	23	**194**
	%	31,4	14,9	30,4	7,2	4,1	11,9	**100**

U: Utilitarian Approach, R: Rights Approach, V: Virtue Approach, N: Normative Approach, Re: Religious Approach, S: Scientific Approach.

Table 9 shows no statistically significant difference between the upper and lower income groups and the pupils' ethical approaches to passive euthanasia (X^2 = 2,350; sd=5; p= ,799). As with active euthanasia, it could be interpreted that the pupils' ethical approaches to passive euthanasia are also independent of their families' income level.

Discussion and Conclusion

Due to the scientific and technological advances of our age, both societies and individuals need to find solutions to the value problems they encounter in their daily lives (Beill, 2003, p. 13). For this reason, values education and moral reasoning skills are now taught at schools. One of the approaches used in the values education process, moral reasoning involves Piaget and Kohlberg's cognitive reasoning, thinking, value clarification, and decision-making processes concerning moral dilemmas (Fernandes, 1999, p. 4). The basic principle of this approach is to expose the students to ethical dilemmas or sample cases and to have them go through an argumentative process for the solution. The teacher's role in this process is not to teach the students a given set of values; it is rather to help them discover their own values (value clarification) and solve the dilemma in light of ethical principles. The individual also gains the decision-making skill in this process. The findings of psychologist James Rent's study with 20-30 year olds on moral development also corroborate this. The study concludes that individuals taught about ethical dilemmas within a "planned educational processes' have significantly improved their problem-solving skills (Velasquez *et al*., 2009). These skills are quite important as today's youths will assume various roles in the future, and question and evaluate the scientific claims. They will also use their critical thinking skills and scientific knowledge in various social reactions (Dawson & Soames, 2006). The present study has sought to elicit secondary education pupils' views on "euthanasia", a bioethical problem, through argumentative paragraphs. In light of the data collected by means of a combination of qualitative and quantitative techniques, the pupils' basic ethical guidelines in their decision-making processes were studied taking into account such variables as gender, school type, and family's income.

The data suggests that students' views of euthanasia differ for active and passive euthanasia. While support is at 53.9% for active euthanasia, it rises to 66.3% for passive euthanasia. While there is no clear tendency to either support or oppose active euthanasia, a majority of the pupils are in favour of passive euthanasia. For the lack of support for active euthanasia, content analysis of the argumentative paragraphs suggests that pupils have faith in scientific and technological

developments, value human life, and consider such a decision as "suicide". The analysis of the answers of the pupils in favour of active euthanasia suggests that "this is a decision taken with individual free will (respect for autonomy)". A review of the literature yields similar findings. According to Gürcan (2011), this view confirms that the right to live is a basic human right and freedom, indispensable and non-transferrable. In our days, when the individual is more valued, there are those who believe that, out of "respect for autonomy", wilful euthanasia should not be considered a crime in the case of terminally ill patients in pain. For the defenders of euthanasia, humans have not only the right to live but also the right to live with dignity. When life becomes unbearable and when there is no hope of recovery, those who live dependent on others lose their dignity. In this case, the individual has the right to die with dignity by refusing treatment that only delays death (Özen & Ekici Şahin, 2010). The findings of this study suggest that secondary education pupils have a different view of the matter. 11.1% of those opposing active euthanasia consider "putting up with pain and learning to live with it" as a virtue. The findings concerning passive euthanasia suggest, on the other hand, that the state of unconsciousness changes the perspectives. In this case, opposition focuses on this state and stresses that nobody has the right to make such a radical decision on behalf of someone else. Those in favour of euthanasia have mostly been found to make analyses of benefit and harm on a social scale. This finding leads one to think that an unconscious individual is perceived to be "dead".

10% of the participants stated their opposition to active euthanasia on religious grounds. This was down to 4% in the case of passive euthanasia. The low percentage of opposition to euthanasia on religious grounds is noteworthy. This, too, is a finding similar to those yielded by other studies in the field. Yaman (2012), for instance, concludes that a religious approach to scenarios on genetically modified organisms and genetic screening tests scores a low percentage.

In this research, the pupils' basic ethical approaches in their decision-making processes were also studied taking into account such variables as gender, school type, and family's income. The findings suggest that these approaches to ethical dilemmas are independent of the variables in question. This, too, is a finding parallel to other studies (Sadler & Donnelly, 2006; Sadler & Fowler, 2006).

Issues of ethical debate such as euthanasia are open to different interpretations due to their ill-structured and open-ended nature (Sadler & Donnelly, 2006). This is why teachers are concerned about discussing such sociological facts in class (Chowning, 2005). However, providing students with a learning environment where they could use their argumentation-focused evaluation skills (the discursive practices associated with evaluating evidence assessing alternatives, establishing the validity of claims, and addressing counter positions) in tackling issues of this kind would facilitate the management of the process. Pre-determination of values in the decision-making processes regarding sociological issues of this type would also make it easier for teachers to manage in-class debates and clarify different points of view.

REFERENCES:

Akın, H. (2007). Çukurova üniversitesi fen edebiyat fakültesi ve eğitim fakültesi öğrencilerinin temel biyoetik konuları hakkındaki görüşleri (Unpublished master's thesis). Cukurova University, Adana.

Aydın, E. (2001). Tıp etiğin giriş. Ankara: Pegem A Yayıncılık.

Beill, B. (2003). İyi çocuk, zor çocuk "doğru davranışlar çocuklara nasıl kazandırılır?" (Çevr.Cuma Yorulmaz). Ankara: Arkadaş Yayınevi.

Chen, D., & Stroup, W. (1993). General system theory: Toward a conceptual framework for science and technology education for all. Journal of Science Education and Technology, 2, 447-459.

Chowning, J.T. (2005). How to have a successful science and ethics discussion. Science Teacher, 72 (9), 4-50.

Çobanoğlu, N. & Aydoğdu İ.B. (2009). Tıp araştırmaları ve hayvan hakları açısından hayvan deneyleri etik kurulları. Sağlık Bilimlerinde Süreli Yayıncılık, 7. Ulusal Sempozyum, TÜBİTAK, 112-118.

Çobanoğlu, N. (2009). Kuramsal ve uygulamalı tıp etiği. (Birinci Basım). Ankara: Eflatun Yayınevi.

Dawson, V., & Soames, C. (2006). The effect of biotechnology education on Australian high school students' understanding and attitudes about biotechnology precesses, Resaerch in Science and Technological Education, 24(2), 183-198.

Doğanay, A. (2006). Değerler eğitimi, Cemil Öztürk (Editör). Hayat Bilgisi ve Sosyal Bilgiler Öğretimi. Ankara: Pegem A Yayıncılık.

Dori, Y.J, Tal, R. T., & Tsaushu, M. (2003). Teaching biotechnology through case studies-Can we improve higher order skills of nonscience majors? Science Education, 87: 767-793.

Driver, N., Newton, P., & and Osborne, J. (2000). Establishing the norms of scientific argumentation in classrooms. Science Education, 84, 287-312.

Elçigil, A., Bahar, Z., Beşer, A., Mızrak, B., Bahçelioğlu, D., Demirtaş, D., Özdemir, D., Özgür, E., & Yavuz, H. (2011). Hemşirelerin karşılaştıkları etik ikilemlerin incelenmesi. Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi, 14(2).

Ersoy, N., & Altun, İ. (2001). Hemşirelerin Yardımlı İntihar Hakkındaki Görüşleri. T Klin J Med Ethics, 9.49-55.

Fernandes, L. (1999). Value personalisation: A base for value education. www.eric.ed.gov adresinden 23 Ekim 2011'de alınmıştır (Erıc Document: ED434880).

Gündüz, T., Öner, S., Çınar, T., & Din, H. (1996). "Hekimler Euthanasiayı Savunuyorlar Mı ?" Adli Tıp Bülteni, l(2).82-8.

Güngör, E. (1993). Değerler Psikolojisi. Amsterdam: Hollanda- Türk Akademisyenler Birliği Yayınları.

Gürcan, E.C. (2011). Ötanazi: yaşama hakkı açısından bir değerlendirme. Ankara Üniversitesi Hukuk Fakültesi Dergisi. 60(2). 255-280.

Hanegan, N. L., Price, L., & Peterson, J. (2008). Disconnections between teacher expectations and student confidence in bioethics. Science and Education, 17:921-940.

Ilgaz, S., & Bilgili, T. (2006). Eğitim ve öğretimde etik. Kazım Karabekir Eğitim Fakültesi dergisi. 14. 199-210

Işıl Ülman, Y. (2010). Etik, biyoetik, hukuk: temel kavramlar ve yaklaşımlar. Acıbadem Üniversitesi Sağlık Bilimleri Dergisi. 1(1). 2.

İçelli, İ. & Demet, M.M. (2001). Rasyonel intihar. Anadolu Psikiyatri Dergisi. 2(4). 230-235.

Karahisar, F. (2006). Ölümcül hasta, hemşire ve hekimlerin ölüm ve ötanaziye ilişkin görüşleri (Unpublished Master's thesis). Atatürk University, Erzurum.

Keskin Samancı, N. (2009). Biyoetik eğitimi kapsamında ortaöğretim öğrencilerine yönelik "biyoetik değer envanteri' geliştirilmesi (Unpublished PhD dissertation) Gazi University, Ankara.

Kumaş, G. (2005). Adana ilindeki çeşitli hastanelerin yoğun bakım ünitelerinde çalışan hemşirelerin ötanazi hakkındaki düşünceleri. (Unpublished Master's thesis). Çukurova University, Adana.

Macer, D.R.J. (2008). UNESCO Chair in Bioethics. Moral games for teaching bioethics. The International Center for Health, Law and Ethics Faculty of Law, University of Haifa.

Mandıracıoğlu, A., & Özsoy, S.A. (1995). Ege üniversitesi tıp fakültesi ve hemşirelik yüksekokulu son sınıf öğrencilerinin ötenazi konusuna yaklaşımları. Kriz Dergisi 3(1-2). 307-310.

Nehir, S., Kardeniz, G., Altıparmak, S., & Tok, N. (2005). Üniversite öğrencilerinin ötenaziye ilişkin düşünceleri: Bir yüksekokul örneği. IV. Ulusal Hemşirelik Öğrencileri Kongresi 5-6 Mayıs 2005 Ordu'da poster bildiri.

Newton, P., Driver, R., & Osborne, J. (1999). The Place of argumentation in the pedagogy of school science. International Journal of Science Education, 21(5), 553-576.

Pedretti, E. (1999). Decision making and STS education: Exploring scientific knowledge and social responsibility in schools and science centers through an issues-based approach. School Science and Mathematics, 99, 174–181.

Oğuz, Y., Şenol, S., Devrimci Özgüven, H., Ankazan, M., Özen, A.R., & Ünal, Ş. (1996). Ankara'da çalışan hekimlerin ötanazi ile ilgili görüşlerini belirlemeye yönelik bir anket çalışması. 3P Dergisi, 4. Ek-3.

Olsher , G & Dreyfus, A. (1999). The "ostension-teaching" approach as means to develop junior high school students attitudes towards biotechnologies, Journal of Biological Education, 34(1), 25-31.

Özen, M. & Ekici Şahin, M. (2010). Ötanazi. Ankara Barosu Dergisi. 68(4). 15-36.

Sadler, T. D. & Donnelly, L.A. (2006). Socioscientific argumentation: the effects of content knowledge and orality, International Journal of Science Education, 28(12), 1463-1488.

Sadler, T. D. & Fowler, S. R. (2006). A Threshold model of content knowledge tarnsfer for socioscientific argumentation, Science Education, 1-19.

Sadler, T. D. & Zeidler, D. L. (2005). The significance of content knowledge for informal reasoning regarding socioscientific issues: applying genetics knowledge to genetic engineering issues, Science Education, 89: 71-93.

SCU (2011). A Framework for thinking ethically. Retrieved October 14, 2011 from http://www.scu.edu/ethics/practicing/decision/framework.html

Stahl, R. J. (1979). Working with values and moral issues in content-centered science classrooms, Science Education, 63, 183-194.

Tepehan, S., Özkara, E., & Yavuz, M.F. (2011). Yoğun Bakım Ve Diğer Birimlerde Görev Yapan Hemşirelerin Ötanaziye Yaklaşımı. Adli Tıp Dergisi, 25(2). 115-123.

Toulmin, S. (1958). The uses of argument. Cambridge: Cambridge University Pres.

Velasquez, M., Moberg, D., Meyer, M.J., Shanks, T., McLean, M., DeCosse, Andre, C & Hanson, K. (2009). A Framework for thinking ethically, Makkula Center for Applied Ethics at Santa Clara University. Retrived October 14, 2011 from http://www.scu.edu/ethics/practicing/decision/framework.html.

Williams, J.R. (2005). Dünya hekimler birliği tıp etiği el kitabı (çev. M. Civaner). Ankara: World Medical Association.

Yaman, H. (2012). Argümantasyon tabanlı biyoetik eğitiminde örnek bir uygulama: genetiği değiştirilmiş organizma ve genetik tarama testi. (Unpublished Master's thesis). Gazi University, Ankara.

Yeşil, R. & Aydın, D. (2007). Demokratik değerlerin eğitiminde yöntem ve zamanlama. TSA, 11(2), 65-84.

Yıldırım, A. & Şimşek, E. (2006). Sosyal Bilimlerde Nitel Araştırma Yöntemleri. (6.Baskı). Ankara: Seçkin Yayıncılık.