

## Effects of the ‘Framework For Case Analysis’ in pre-service teachers’ professional ethics education

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**ABSTRACT** This study aims to examine the effect of the framework proposed for professional ethics courses in teacher education on the pre-service science teachers’ analysis of cases involving ethical dilemmas. The research was designed as a case study. The study group was composed of nine (two males and seven females) pre-service science teachers. Participants were expected to analyze the cases in the ethical dilemma case analysis form without and with the framework. The data were subjected to descriptive analysis within the scope of the steps of the framework. It was found that the framework makes pre-service science teachers to better define the case, produce more than one option for the solution of the case, and evaluate these options by considering their teacher identities and various sources. The decisions taken by the pre-service teachers during the analysis changed and the moral level of their decisions increased when they used the framework.

*Keywords:* Case analysis, Ethics education, Teacher education

## ‘Örnek Olay Analiz Çerçevesi’ nin öğretmen adaylarının mesleki etik eğitimindeki etkileri

**ÖZ** Bu araştırmanın amacı, mesleki etik dersinde kullanılması önerilen ‘Örnek Olay Analiz Çerçevesi’ nin fen bilimleri öğretmen adaylarının, etik ikilem içeren örnek olayları çözümlemeleri üzerindeki etkisinin incelenmesidir. Araştırma, nitel araştırma desenlerinden durum çalışması olarak tasarlanmıştır. Çalışma grubunu, Eğitimde Etik ve Ahlak dersini alan ve çalışmaya katılmaya gönüllü dokuz (iki erkek, yedi kadın) ortaokul fen bilimleri dersi öğretmen adayı oluşturmuştur. Katılımcılardan, araştırmacı tarafından geliştirilmiş etik ikilemler formunda yer alan ortaokul öğretmenlerinin karşılaşılabilecekleri etik ikilemleri içeren sekiz örnek olayı, ‘Örnek Olay Analiz Çerçevesi’ kullanmadan ve kullanarak çözümlemeleri istenmiştir. Veriler betimsel analize tabi tutulmuştur. Sonuç olarak, çerçevenin öğretmen adaylarının olayı daha iyi tanımlamalarına, olayın çözümü için birden fazla seçenek üretmelerine yol açtığı anlaşılmıştır. Ayrıca, öğretmen adayları çerçeve sayesinde, bu seçenekleri öğretmen kimliklerini ve çeşitli kaynakları göz önünde bulundurarak değerlendirmişlerdir. Öğretmen adaylarının aldıkları kararlar çerçeve kullandıklarında değişmiş ve kararların ahlaki düzeyi yükselmiştir.

*Anahtar Sözcükler:* Etik eğitimi, Öğretmen eğitimi, Örnek olay analizi

*Citation:* Tezcan, G. (2024). Effects of the ‘Framework For Case Analysis’ in pre-service teachers’ professional ethics education. *Turkish Journal of Education*, 13(4), 410-438. <https://doi.org/10.19128/turje.1406671>

## INTRODUCTION

Undoubtedly, the most important element of education is teachers. Mathur and Corley (2014) related the influence of teachers on students with the Vygotsky's Proximal Development Theory and emphasized that teachers are the adults at schools who influence students' development. Teachers are in contact not only with students but also with their colleagues, administrators, and parents during they work and take many decisions that will affect the development of students. It is expected from them that these decisions are compatible with ethical principles.

Professionals base their decisions on common standards instead of on their own subjective opinions when making the right decision in a situation related to their profession (Maxwell & Schwimmer, 2016). These common standards are professional ethical principles and codes (Malone, 2020). Ethical codes are the written rules and principles that are considered 'good' for a profession (Aydın, 2002). When the international documents related to the ethical codes and principles of the teaching profession are examined, the ethical codes determined by the United States of America National Education Association (NEA, 1975), Australian Capital Territory (ACT, 2006), and Malta Ministry of Education and Employment (2012), and the International Principles of Practice for Educators (Childhood Education International, 2020) has been reached. In Türkiye, there is an 'Ethical Principles for Education and Training Service Providers Circular' (Ministry of National Education [MONE], 2015).

Pre-service teachers enter their universities with confusion over ethical behavior and unfortunately carry it into their professional roles (Malone, 2020). Teachers should be aware of ethical principles and codes through professional ethic courses given during their pre-service education. Teaching ethical principles and codes is only a part of ethical education. Warnick and Silverman (2011) state that there are three ways of ethical education; (1) teaching ethical principles and codes, (2) teaching major ethical philosophical theories (eg utilitarianism, Kant's theory of deontology, care ethics, etc.), and (3) case analysis. Knowing the ethical principles and codes or knowing the main ethical philosophies is necessary; nevertheless, not sufficient for ethics education (Tatto, 2021). These concepts and how to apply them in special situations in which some obligations overlap, require a special reasoning skill which is possibly gained by allowing the application of ethical concepts to cases in ethics education (Maxwell & Schwimmer, 2016). For this reason, a mixed teaching method which means teaching ethical principals, codes and theories and also using case analysis together is recommended in ethics education (Warnick & Silverman, 2011).

While using case analysis in ethics education, students are directed by the teacher to analyze a case (a scenario, a newspaper article...) involving an ethical problem. The case analysis method provides knowledge, develops skills, and creates attitudes and awareness (Şahin et al., 2010). With the help of the case analysis, pre-service teachers also gain the ability to apply the concepts that they have learned about ethics to the situations they may encounter during their professional life, and at the same time, such an application increases their awareness about that their moral intuitions are not an reliable guide to refer in their professional roles (Maxwell & Schwimmer, 2016). Embedding scenarios in courses allow students to be more aware of nuances of ethical codes (Decker et al., 2022) and challenges that will arise in their work (Joyce et al., 2018). For this reason, the use of cases in the professional ethics education of pre-service teachers should be taken into consideration.

The literature on professional ethics education in teacher training is a limited field that needs improvement (Metcalf, 2022). Decker et al. (2022) stated that empirical studies examining the effects of ethics education are limited. By the way, it is still limited. Some studies are showing that professional ethics education improves the moral reasoning (Defining Issues Test [DIT] scores) of people from various professional groups, such as psychology students (Korkut & Aktaş, 2019), nursing students (Krawczyk, 1997), engineering students (Clancy, 2021) social and health care students (Juujärvi & Myyry, 2022); while some compare different researches finding with a metanalysis and concluded in ethics education increase DIT scores (Schlaefli et al., 1985). Cummings et al. (2010) found that direct teaching of Moral Development Theory and the use of ethical dilemmas improved pre-service teachers'

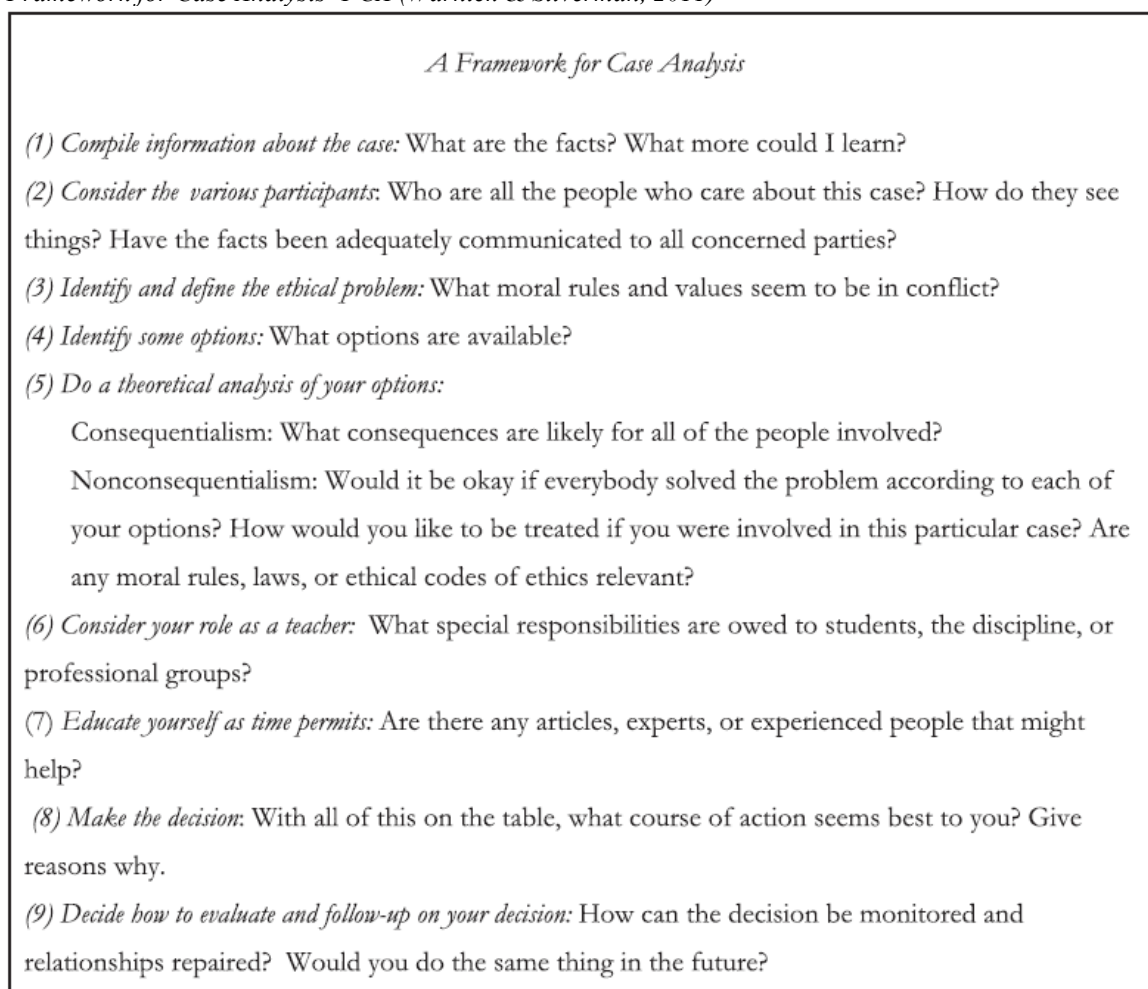
moral reasoning. In addition, Maxwell and Schwimmer (2016) determined that ethics education improves teacher quality in three aspects: (1) in terms of increasing familiarity with professional ethical principles, (2) in terms of ethical sensitivity that is increased by reflecting on the ethical dimensions of the teacher, and (3) in terms of striving to increase moral reasoning skills by dealing with ethical problems. This literature review shows the positive effects of professional ethics education in teacher educations like as it in other professions.

Ethics and Morals in Education course is included as a compulsory vocational knowledge course in teacher training programs implemented in the 2018-2019 academic year in Türkiye. The course content covers the topics listed by Higher Education Institution [HEI] (2018); such as, basic concepts and theories regarding morality and ethics; ethical principles, ethical rules, professional ethics; the teaching profession with its social, cultural, moral and ethical aspects; ethical principles in the learning and evaluation process; ethical principles in relations with educational stakeholders (employers/administrators, colleagues, parents, professional organizations and society); unethical behavior in professional life; unethical behavior in school and education; ethical dilemmas, problems and solutions, and teacher as an ethical leader. This content direct teacher educators to the mixed teaching method suggested by Warnick and Silverman (2011); since, principles, theories, and ethical dilemmas and their solutions covered by the course. Pre-service teachers can be introduced ethical dilemmas and problems and their solutions through case studies. Then, the question of "How should the case analysis method, which is thought to be theoretically useful, be used in pre-service teacher education?" comes to mind.

There are some ethical decision processes in literature. For example, Turkish Psychologists Association [TPA] (2004) gives the ethical decision-making process steps. These are identification of ethical issue, identification of possible action options, identification of their possible benefits and harms, evaluation of these, choosing one action and applying it, reflecting on, activation of the other possible actions if the results are not satisfactory. In addition, Mathur and Corley (2014) also listed the stages of the ethical decision-making process as finding the ethical issue, determining the people that are involved in, defining the conflicting principles, identifying the solution options and their consequences, criticizing whether an expert opinion is needed or not, selecting one option and following it up, reflecting on the action. If the steps listed by Mathur and Corley (2014) are examined, it is seen that although they include the steps determined by TPA (2004), there are also extra steps to determine the participants and to evaluate whether there is an expert to be consulted. However, teaching profession needs a ethical decision process itself. Gao et al. (2021) suggested a decision-making model for teachers for assessment. On the other hand, Warnick and Silverman (2011) developed a framework (A Framework for Case Analysis [FCA]) specifically for the ethics education of pre-service teachers (Figure 1), and in this framework, in addition to the steps specified by TPA (2004) and Mathur and Corley (2014), 'Consider your role as a teacher' step has given place. FCA is also different from the model suggested by Gao et al. (2021), as the FCA is not for only ethical cases about assessment, but also for every ethical dilemma. That is, FCA is special to pre-service teachers' ethical education and give them the steps that they follow up while deciding on an ethical problem. Moreover, it makes pre-service teachers consider their professional role, that is important; since what is expected from professional ethics education is to enable individuals to act by taking into account the requirements of his/her professional role rather than personal values (Maxwell & Schwimmer, 2016). In addition, Ethics and Morals in Education course covers the topic of 'teacher as an ethical leader' (HEI, 2018); that is pre-service teachers required to realize their roles as teachers when an ethical problem occur.

**Figure 1.**

*A Framework for Case Analysis- FCA (Warnick & Silverman, 2011)*



When Figure 1 is examined, it is seen that the framework consists of nine steps. In the first step, it is expected to list all known facts about the case and examine what can be known more. In the second step, the participants of the case and how they will evaluate this case are asked to be analyzed. The third step is the step in which the ethical problem and the conflicting moral rules and principles are determined. In the fourth step, some options are asked to be determined for the solution of the case, and in the fifth step, these options are analyzed. While analyzing both of the two approaches are used: consequentialism and non-consequentialism. Consequentialism means that an action's ethical status is decided according to its consequences (Sosa, 1993). On the other hand, while handled the options with non-consequentialism approach, whether the ethical solution is suitable for everybody or not, ethical laws and principles are considered. The sixth step requires to determine the responsibilities of teachers towards students and professional groups; in other words, it is the evaluation of the role that should be undertaken as a teacher in the solution of the case. In the seventh step, the people and resources that can be supportive while deciding on a solution are determined and consulted, in the eighth step, one of the options determined in the fourth step is decided for the solution of the case. In the last step, it is requested to determine how the decision will be followed. As it is understood, all steps of ethical decision-making are arranged in such a way that they can be used in the professional ethics education of pre-service teachers.

As stated, case analysis is a part of ethics education. Warnick and Silverman (2011) suggested the FCA for teachers' ethical education; however, its effect on pre-service teachers has not been searched yet. Understanding the effect of this framework on pre-service teachers' analysis of ethical cases is important in terms of understanding its usability in professional ethics courses in teacher education undergraduate

programs. Therefore, this study aimed to examine the effect of the use the FCA suggested by Warnick and Silverman (2011) in the professional ethics course, on the analysis of ethical cases by secondary school pre-service science teachers. In other words, the study is about the process of the case analysis within the scope of Ethics and Morals in Education course. By the way, teacher educators would be informed about such a framework which is special to pre-service teachers' ethics education and its effects; so that, some suggestions would be done about the case analysis part of the compulsory and important course of 'Ethics and Morals in Education'.

## **METHOD**

### **Research Design**

The research was designed in the Single Case Design which is one of the qualitative research designs. A single case study is similar to a single experiment; that is the same conditions justify the single case-study (Yin, 2014). In this study, the effect of the FCA, used during the case study analysis conducted within the scope of the Ethics and Morals in Education course (in the authentic setting), on the analysis of pre-service science teachers with different moral schemas was examined as the single case. This is a critical case in testing a well formulated theory explained by Yin (2014) as the first rationale for single case studies. Like the setting and conditions of a well formulated theory (of a critical single experiment) are clear, also in this study, the moral reasoning levels of the participants, the steps of the FCA, the scope of the Ethics and Morals in Education course, and in which part of the course and within the which scenarios' analysis would the FCA be used are also clear.

### **Study Group**

The study group was determined by maximum variation sampling (seeking cases that maximize a range of perspectives and differences), which is one of the purposive sampling methods (Staller, 2021). The study group was determined among the pre-service science teachers who took the Ethics and Morals in Education course in the spring term of the 2021-2022 academic year by taking into account the scores obtained from Defining Issues Test-DIT adapted into Turkish by Cesur and Topçu (2010). The study group was decided on according to the DIT scores that every moral schema will be represented in the study group.

It was given importance to participate the pre-service teachers from each moral level revealed as a result of DIT to the study group; since it was desired to control the possible effect of moral reasoning scores on case analysis. DIT reveals three moral levels/schemas: (1) 'Personal Gain', which is a point of view to stay out of trouble and increase what is for one's good, (2) 'Maintaining Norms', which is to position oneself later than rules, obligations and expectations, and (3) 'Postconventional', which is abstract freedom, equality and solidarity (Cesur & Topçu, 2010). Accordingly, the scores were calculated and nine pre-service science teachers (2M, 7F) were chosen as the study group among the pre-service science teachers who took the 'Ethics and Moral in Education' course and volunteered to participate in the study, including at least one student with a high score for each of the three moral schemes. Table 1 shows the codes, genders, and DIT scores of the pre-service teachers in the study group.

As seen in Table 1, the study group had TC6, TC9, whose 'Postconventional' schema score was higher than the other schema scores, TC2, TC4, and TC5, whose 'Maintaining Norms' score was higher, and TC7, whose 'Personal Interest' score was higher than the other scores. There are TC1 with close 'Personal Earnings and Protection of Norms' scores and TC3 with close 'Maintaining Norms and Postconventional' scores. TC8, whose three schema scores were close to each other, was also included in the study group. In this way, it was ensured that the study group consisted of pre-service science teachers who adopted one of the three schemas more dominantly, two of them together, or all three of them dominantly.



**Table 1.***Codes, Genders, and DIT Scores of the Pre- Service Teachers in the Study Group*

Participant Code	Gender	'Personal Interest' Score	'Maintaining Norms' Score	'Postconventional' Score	A Score	M Score	Inc. Score
TC1	F	12	15	6	2	5	
TC2	F	2	28	9	1		1
TC3	F	8	15	16	1		1
TC4	M	12	19	7	2		7
TC5	M	8	22	7		3	
TC6	F	11	6	17	4	2	
TC7	F	17	6	14	3		3
TC8	F	12	14	12	2		3
TC9	F	9	12	19			

## Data Collection Tools

### *Defining Issues Test (DIT)*

As mentioned above, DIT was applied for diagnostic purposes while determining the study group. DIT was translated and adapted from the 'Defining Issues Test -DIT', a multiple-choice assessment tool developed by Rest (1975) based on Kohlberg's Theory of Moral Development (as stated in Cesur & Topçu, 2010). DIT originally includes six scenarios (Rest, 1979). Firstly, Cesur (1997) translated four of the DIT scenarios and 12 items for each of these scenarios that is they translated a short version. Cesur and Topçu (2010) conducted the follow-up study of adapting DIT into Turkish.

While answering DIT, participants are expected to rate each of these 12 items on a five-point rating scale ('Great', 'A lot', 'A little', 'Little', 'Not at all') according to the degree of importance, and finally, they are asked to choose four of the 12 items and sort them according to the importance level taking into account the rating they made above (Cesur & Topçu, 2010). Some of the 12 items under each scenario in the DIT correspond to any of the three schemas, on the other hand, some of them do not belong to any schemas (constituting the A score), and some are used in consistency control and do not make any sense (constituting the M score). In this way, the 'Personal Gain', 'Maintaining Norms', and 'Post-conventional' scores, A scores, and M scores of the participants are calculated. In addition, it is checked for inconsistency, and the 'Inconsistency-Inc.' score is calculated. Cesur and Topçu (2010) proposed the critical value for the M score as six and below, for the Inc. as eight, and calculated Cronbach alpha and test-retest coefficients of the schemas between .53 and .60. Cronbach's alpha coefficients can be considered slightly low; however, Rest et al. (1997) stated that shortening the test causes a decrease in the internal reliability by 9 to 13 points. Cesur and Topçu (2010) related these low coefficients with using the short version and the difficult structure of the instrument. Therefore, no objection was found to use the instrument in this study.

### *Example Ethical Dilemmas Faced by Secondary School Teachers Form*

Eight scenarios were written by the researcher, based on the ethical dilemmas of secondary school teachers that emerged as a result of a previous study conducted by Tezcan and Güvenç (2020). It was found in the study that the ethical dilemmas of secondary school teachers were grouped under 4 categories; (1) Protecting the Student, (2) Fair Evaluation, (3) Protecting Colleague, and (4) Balancing Parent Intervention. The researcher created two scenarios for each category mentioned above (Appendix 1). Scenarios 1 and 5 are related to 'Protecting the Student', Scenarios 2 and 7 are related to 'Fair Evaluation', Scenarios 3 and 6 to 'Protecting Colleague', and Scenarios 4 and 8 to the 'Balancing Parent Intervention' category. Scenarios contain open and closed-ended cases involving an ethical problem that teachers may encounter. In open-ended cases the course of action is not given; while in closed-ended cases, it is clear what happens at the end of the case (Şahin et al., 2010). Scenarios 2 and 3 are closed-ended, whereas the others are open-ended. The scenarios were reviewed by a secondary school teacher

and an educational science expert for clarity and suitability with the category. In the form, these eight scenarios are written one after the other and the participants are asked to analyze each scenario by texting the below space and answer the question of 'What would you do if you were the person in the case?'

### **Implementation Process**

This study was carried out in the last four weeks of the spring semester of the 2021-2022 academic year (05.05.2022-27.05.2022), within the scope of the Ethics and Moral in Education course given by the researcher at a public university's science education department in Türkiye. The course is a compulsory vocational knowledge course with two theoretical course hours per week and is given face-to-face. While the weekly course contents were prepared at the beginning of the semester, the last four weeks of the course were assigned for the case study analysis.

First, preliminary preparations were made before starting the designed study. In this context, the FCA was translated into Turkish by the researcher. A lecturer working in the Department of Foreign Languages was consulted by showing the translation and the original version of the framework. After the necessary corrections were made, a few pre-service teachers made read the Turkish form of FCA and it was decided that the Turkish form was equal to the original form and was understandable. The translation of FCA was given as Appendix 2. Then, the Ethics Committee Approval Report from Çanakkale Onsekiz Mart University Graduate Education Institute (the document date is 14.04.2022 and the number is 08/17) and the research permission from Çanakkale Onsekiz Mart University Post Graduate Education Institute were obtained.

After the preliminary studies, the pre-service teachers were informed about the purpose and the scope of the study, and it was specifically stated that this study would not contribute to the course evaluation scores in any way. DIT was applied to the pre-service teachers who volunteered to participate in the research between 27.04-29.04.2022, and according to the results of DIT, nine preservice teachers with different moral schemas were determined as the study group. Although only the forms filled in by these nine participants were analyzed, all the procedures done during the last four weeks of the course were carried out with the participation of all pre-service teachers who took the course.

In the first week of the procedures, in the Ethics and Morals in Education course, the Example Ethical Dilemmas Faced by Secondary School Teachers Form (Appendix 1) was applied for two lecture hours, and the pre-service science teachers were asked to analyze the scenarios in the form. This was the first analysis of the scenarios and analysis were done without the frame and without any directions of the researcher. During this process, the pre-service teachers worked individually, the cases were not discussed in the classroom or among themselves. The needed warnings were made about this. In the following week, the FCA was introduced to the pre-service science teachers for two lecture hours again and it was explained which questions they would ask themselves for each of the nine items in the framework and how they would search for the answer to each question, based on the studies of Warnick and Silverman (2011). In the third week, the Example Ethical Dilemmas Encountered by Secondary School Teachers Form was implemented again. In second implementation, the pre-service science teachers were expected to analyze the scenarios according to the FCA. During this lecture hour, the case studies were not allowed to be discussed in the classroom again, and everyone analyzed the scenarios individually by themselves without any intervention of the researcher. In the last week, since the data collection process has been ended, within the scope of the course, all the scenarios in the form was analysed one by one by using the FCA through an in-class discussion. In this way, the requirements of the Ethics and Morals in Education course have been fulfilled; while the implementation process has been completed.

### **Data Analysis**

In the data analysis process, only the forms filled by the pre-service teachers included in the study group according to their DIT scores were analyzed. While collecting the data, it was not requested to write

names on the DIT and forms; however, they were asked to code the first two letters of their parents' names and the day, month, and year of their birth on the forms. For example, for a pre-service teachers whose mother's name is Mariam, whose father's name is Jack, and whose date of birth is 03.07.1984, the code is 'MAJA03071984'. In this way, the DIT scores and the analysis of the cases with and without using the FCA could be matched during the data analysis.

While evaluating the analysis of the pre-service teachers, the data were subjected to descriptive analysis within the scope of nine steps in the FCA. In descriptive analysis, the data are summarized and interpreted by considering the dimensions used in the data collection process (Tomaszewski. et al., 2020). In this way, the data were analyzed by considering the nine steps of the framework. In the framework, it is clear what is expected from the participants for each step, while analyzing the answers of the participants with and without framework, these steps of the FCA was accepted as categories. For example, in the 'Compile information about the case' category, the analysis of the pre-service teachers with and without using the framework were analysed whether the analysis includes the facts about the case and the more information needed to know as mentioned in the first step of the FCA. The analysis done by using the FCA already had each steps separately; however, even if the analysis done without using the FCA did not have these steps one by one, they also might include the facts about the case. Therefore, both the analysis done with and without the FCA were analyzed under the categories which are the steps of the FCA.

### **Validity-Reliability**

In qualitative research, validity is defined as an attempt to evaluate the accuracy of the findings made by researchers, and it is recommended that researchers engage with at least two of the 'validity strategies' available for this evaluation (Creswell, 2012). In this study, rich descriptions and external control were used as validity strategies. While presenting the findings, it was tried to be exemplified with as many quotations as possible. At the same time, an educational research expert who is outside of the study was assigned as the research consultant to follow the research implementation process and examine the data and findings.

For reliability, consistency between encoders was checked. Reliability usually means consistency in the analysis of more than one coder (Creswell & Creswell, 2022). The data were analyzed according to the steps of the FCA with the descriptive analysis of the ethical dilemmas form that the participants filled in according to the steps of the FCA and the analysis without using the framework. Therefore, the categories are known in advance. Therefore, a quantitative process, like calculating consistency coefficient was not conducted. On the other hand, it was tried to be guaranteed that the researcher acted consistently at all stages of the study. Such a consistency should be sought in data collection tools, data collection process and analysis stages by looking at the research from an outside perspective (Yıldırım & Şimşek, 2018). Data analyzes of the researcher was investigated by the consultant and researcher and the consultant were discussed together.

## **FINDINGS**

The findings have been compiled under the nine steps of the FCA. At each step, the answers given by the pre-service science teachers to the questions about the scenarios and the evaluations they made were examined and compared with the analyzes they made without the framework.

### **Findings About the Step of 'Compile Information About the Case'**

In the first step of the framework, the case is expected to be defined; At this step, what the facts are and what needs to be known are expected to be determined. When the scenario analyses made by the pre-service teachers without the framework were examined, it was found that only in Scenario 7, some pre-



service teachers summarized what they knew about the case:

*TC2: I know that Can's father is an engineer. I am aware of that his project is not a project that Can can do alone. First, I would talk to Can and ask him how he did the project, and whether he got any support or not. (Scenario 7)*

*TC3: However, although the teacher expressed his expectations at the beginning of the term, Can did not act by them. Like his other friends, Can also developed a project, but his father made the construction phase. He has labored in the project, but unlike the other friends, it is not just his labor. (Scenario 7)*

When the Scenario 7 is analysed, it is seen that it is longer than other scenarios. For this reason, TC2 and TC3 might need to summarize the scenario first. Apart from these, none of the pre-service teachers defined the case in their analysis done without using FCA. In the analyses that they did with FCA, most of the pre-service teachers summarized the case in their own words at the first step:

*TC2: The teacher wants to help his student with a low socio-economic level. He thinks that this help will increase the student's success. He plans to teach a private course outside of the school hours. (Scenario 5)*

*TC3: Hazal is a music teacher. She discovered a student's talent for music. His family is disturbed by the teacher's behavior. The student wishes to have a career in music. (Scenario 8)*

*TC5: - The class is guided by Teacher Zeynep. Another subject teacher insults the students. Students are uncomfortable with this situation. Zeynep teacher finds her colleague unfair. (Scenario 3)*

Some pre-service teachers added their comments to their summaries:

*TC4: The teacher is running away from the growth of the case. The teacher approaches the case with prejudice. She has a biased view of the case. She ignores some facts that she should do about the case. (Scenario 3)*

*TC7: There is a student in Gürsoy Teacher's class who is unsuccessful because of his low socio-economic level. If the socio-economic level improves, the student will be successful. To support the student, Gürsoy Teacher wants to give lessons outside of school hours by getting permission from the family. (Scenario5)*

As can be seen, the pre-service teachers summarized the case as expected in the analysis done with the framework. However, some of them added their interpretation while summarizing the case. For example, TC4 wrote down his comments about the case by stating that although it was not mentioned in Scenario 3, the teacher avoided the case from escalating and approached the case with prejudice. Similarly, TC7 wrote that if the socioeconomic level improves, student success will improve and Gürsoy Bey will get the permission of the family before giving private lessons. However, these expressions are not included in the scenario. TC7 did not write the information given in the scenario that she read, however, she wrote her inferences.

In this step, which is the first step of the framework, it is essential for pre-service teachers to determine what they know and need to know about the case. This will enable them to understand the case correctly so that they can analyze the case in the right way. In almost none of the unframed analyzes (except a few analyzes of Scenario 7), cases were not defined, and what was known and what needed to be learned were not determined. In the analysis made with the framework, the secondary school pre-service teachers were directed to summarize the case. All of the pre-service teachers identified what is known, if not more, about the case for all scenarios; however, some of them also added their inferences and comments about the case, different from what was requested.

## Findings About the Step of 'Consider Various Participants'

In this step, the participants of the case (people who care about the case) and how they will evaluate the case are determined. Participants were not identified in any of the analyzes conducted without using FCA by the pre-service teachers. Although the participants and how they will be affected are mentioned by some pre-service teachers, it is not clear and there are some deficiencies:

*TC2: As a teacher who was subjected to treatment, I would verbally warn the students if it was the first time that they did such a thing. I would say that I did not want to face such a situation again and that if the same thing happens again, I will call parents... (Scenario 6)*

*TC3: I find Zeynep teacher's behavior extremely wrong. By behaving in this way, she both imposed a conscientious responsibility on herself and negatively affected the student. Afterward, I would talk about the situation with my colleague, I would explain the situation to him. I would try to fix the problem. (Scenario 3)*

*TC7: I think that the teacher İpek acted right since the teacher who was joking would be considered a passive teacher by the students in the case that the teacher İpek got involved. (Scenario 6)*

As it can be understood, TC2 referred to her colleague and other students as participants in the analysis she made without using the framework, saying that she was the teacher who was exposed to the treatment. Similarly, Zeynep Teacher, the student, and the colleague were identified as participants in the analysis of TC3; however, TC3 did not mention other students, teachers, and school administration. TC7, on the other hand, talked about how the other students would evaluate what happened, and although TC7 mentioned İpek teacher and her colleague as participants, she did not state how they and the student who was the main hero of the case, the prankster, would evaluate the case.

In most of the analyzes made by the pre-service teachers using FCA, the participants and how they would evaluate the case were given in detail. Most of the pre-service teachers stated all the participants in the case and how they would evaluate this case as requested in the framework:

*TC11: •Mr. Kerem : Creates an untrustworthy image against school administration and parents*  
*• Other Branch Teachers: They can stand up to Kerem Bey or thank him for the information.*  
*• School Administration: It gets reactions from parents.*  
*• Students with Special Situations: Their motivation towards school decreases, and they feel in an unsafe environment.*  
*• Parents of Students with Special Situations: They feel distrust towards the school administration and Mr. Kerem. (Scenario 1)*

*TC7: •İpek Teacher: She or other teachers at school may face the same situation in the future. She may feel conscientiously uncomfortable because she was not involved in the situation. Other students may see that she is silent and expose her to the same treatment.*

*• The student who makes the hand joke: He may repeat this situation because he did not learn from his mistake.*  
*• Other students watching the case: They can also exhibit similar behaviors by taking advantage of the teachers' lack of reaction. They can be disrespectful towards teachers. Relationships with teachers deteriorate. They do not take the teacher seriously in the classroom environment. This may affect their success in classes. They can also exhibit these behaviors outside of school.*  
*• The teacher exposed to the joke: He loses his dignity. It is not taken seriously by students. (Scenario 6)*

Some of the pre-service teachers only stated the participants:

*TC4: •The Student •Zeynep Teacher •Other Students •The Branch Teacher •Guidance counselor •School Administration (Scenario 3)*

*TC9: •Students •Parents • Guidance counselor •Other Teachers •Administration (Scenario 1)*

Some pre-service teachers included how participants would be affected by each possible solution option:

*TC8: •Mr. Deniz: If Mr. Deniz repeats the exam and gives the student an oral exam, he may get a reaction from other students. If he does not repeat the exam, he may receive a reaction from the student who does not like the exam grade and his/her parent.*

*• The parent who does not like the exam grade: If Mr. Deniz does not repeat the exam, the parent may react to the school administration and Mr. Deniz.*

*• Student: If the exam is not repeated, s/he may react to the teacher and the school administration. If the exam is repeated, s/he may receive reactions from the other students and their parents. S/he may have conflicts with friends.*

*• Other students: If the exam is repeated and the other student participates in an oral exam, the students who get high marks in the first exam may react to Mr. Deniz, the school administration, and the other student.*

*• Other parents: If the exam is repeated and the other student participates in an oral exam, the parents of the students who get high marks in the first exam may react to Mr. Deniz, the school administration, and the other student.*

*• School administration: If the exam is not repeated, the student and his/her parents who do not like the exam grade may react to the school administration. If the exam is repeated, it may receive reactions from other students and their parents.*

As can be seen, TC1 and TC7 determined the participants of the case completely. They also stated about how each of the participants would evaluate the case. TC4 and TC9 identified the participants; however, they did not mention how they would evaluate the case. TC8, on the other hand, stated how the participants would be affected by the possible solution options of the case. What is required in the FCA is to identify the participants and to determine how the participants will evaluate the case as it is. The subject of the fifth step of the framework is how the participants will be affected by the possible solution options. Therefore, it can be thought that the pre-service teachers, who included how the participants were affected by each possible solution option, did not understand the second step of the FCA correctly.

### **Findings About the Step of 'Identify and Define the Ethical Problem'**

In the third step, pre-service teachers need to determine which ethical rules and principles coincide. In their analysis without a framework, it seems that the ethical problem is not clearly defined; however, pre-service teachers mentioned concepts such as 'justice' and 'equality', although they did not directly mention the principle of 'Fair and Equal Treatment':

*TC2: I wouldn't just give private lessons to that student, this might be equality, but it wouldn't be fair. (Scenario5)*

*TC5: To treat all students equally, I do not re-examine the student. (Scenario 4)*

*TC7: Because I think that students should be treated fairly, not equally... (Scenario 1)*

*TC3: The ethical problem is to give private lessons and to treat them fairly and equally. Other than legal exceptions, the teacher cannot give private lessons to students in return for a fee or other benefit. As a requirement of the teaching profession, primarily by respecting human rights; the teacher should treat students fairly and equally, regardless of race, language, religion, color, political view, or family status. The teacher should give equal attention to students. (Scenario 5)*

*TC7: If Kerem Teacher shares the student's information with other teachers, he violates the Retention of Student's Information Ethics. (Scenario 1)*

*TC6: The principle of being understanding and tolerant and the principle of avoiding abuse coincide. (Scenario 6)*

In the case analysis conducted with the FCA, all of the pre-service teachers clearly wrote the conflicting

ethical principles. While some pre-service teachers defined the ethical problem with a sentence, some of them showed the conflicting principles with the symbol 'X':

*TC9: Overseeing the development of students X Treating fairly and equally (Scenario 2)*

*TC5: Overseeing the development of students X Ethical Principles in Relationships with Parents (Scenario 8)*

As can be seen, pre-service teachers generally identified the ethical problem correctly and stated the conflicting principles. In addition, it is seen that most of the pre-service teachers use the 'Ethical Principles for Education and Training Service Providers Circular' (MONE, 2015) document as a source at this step. 'Giving Private Lessons', 'Fair and Equal Treatment', 'Retention of Student Information', 'Being Understanding and Tolerant', 'Avoiding Abuse', 'Overseeing the development of students' and 'Ethical Principles in Relationships with Parents' are the articles in this document.

Although TC5 identified conflicting principles for the other cases by using the principles in the document, he did not identify ethical issues for the three scenarios:

*TC5: -There is no ethical problem. (Scenario 4)*

*-There is no ethical problem with the teacher. No ethical principles conflict. (Scenario 6),*

*-No ethical principles conflict with each other. (Scenario 7)*

TC5 wrote that there was no ethical problem in this step of the framework, in the next steps, he produced and evaluated options for the solution of the cases in these three scenarios. As it can be understood from this, although TC5 did not see a problem arising from the conflict of various ethical principles, the framework directed him to problem solution.

It is seen that pre-service teachers identify conflicting ethical rules and principles within the scope of the third step of FCA. While determining the conflicting principles, pre-service teachers mostly benefited from the 'Ethical Principles for Education and Training Service Providers Circular' (MONE, 2015). The document in question was examined within the scope of the 'Ethics and Morals in Education' course before the case studies (implementation process) were started, and it was also stated by the researcher that they could use this document in the third step while introducing the FCA to pre-service science teachers. TC5, on the other hand, could not find any conflicting principles for the three scenarios; however, he continued the analysis with the following steps in the framework. TC5 determined how to behave for these three scenarios in the analysis that he did without using FCA. For example, he stated that he would not do a re-exam for Scenario 4 as given above. However, in the analysis he made using the framework, it was understood that the pre-service teacher did not detect an ethical problem in these scenarios. On the contrary, this situation could not be understood in the analysis he made without using the framework and it was assumed that the pre-service teacher identified an ethical problem in the scenario.

### **Findings About the Step of 'Identify Some Options'**

At this step of the FCA, it is required to identify solution options for the case. This step directs pre-service teachers to produce options and write them down. In the analyzes made without using the framework, mostly only one option was emphasized. Probably, even though the pre-service teachers were mentally evaluating more than one option, they decided on one and wrote it down:

*TC7: If I were Mr. Kerem, I would inform other colleagues about this issue. Because I think that students should be treated fairly, not equally. (Scenario 1)*

TC2: *I would not convey it as if there was a misunderstanding with the student. I would talk to my colleague; because this issue is solved best by the teacher and the student ... (Scenario 3)*

TC7 and TC2 decided on an option and clearly stated that they would use that option in the solution of the case, and they did not include any other option.

In the analysis made by using the FCA, the pre-service teachers defined more than one option. Generally, whether or not to do something when there is no third option; that is, they compared two opposing options:

TC1: *1- He remains indifferent to the situation and does not give high marks to Ayşe.  
2- He gives high marks to Ayşe. (Scenario 2)*

In some cases, they chose more options:

TC3: *1- The teacher can warn the student in the presence of his friends.  
2- The student can be sent to the administration for his/her behavior.  
3- The teacher can talk to the student privately with the guidance counselor.  
4- The teacher can inform the parents about the student's behavior.  
TC7: 1- He gives private lessons to the student.  
2- He makes students get scholarships.  
3- He makes parents request courses to be opened at the specified times by meeting with them and the administration.  
4- He asks a relative to give private lessons.  
5- He can provide financial support himself. (Scenario 5)*

As it can be understood from the above, pre-service teachers define at least two options for the solution of the cases as required by the framework. Some pre-service teachers evaluated the option they expressed at this stage:

TC5: *A-) Not informing other teachers about special situations  
B-) Informing other teachers about special situations (Appropriate) (Scenario 1)*

TC6: *1. I would say that I applied this exam to the whole class and it would not be right to apply an individual exam to the student. I would say that the exam I prepared was valid and reliable, that every student got the grade they deserved, and I would end the interview with the parents.  
2. At the request of the parent, I can administer an individual oral exam to the student. In my opinion, this is not the right behavior. (Scenario 4)*

TC5 briefly evaluated the options and dropped the "appropriate" note next to option B. TC6, on the other hand, evaluated the second option as "In my opinion, this would not be the right behavior". However, an evaluation is not expected at this stage. In the framework, the analysis of options is done in the fifth and the decision-making in the eighth step.

### **Findings About the Step of 'Do A Theoretical Analysis of Your Options'**

In the fifth step, pre-service teachers are expected to evaluate the options they have defined with a consequentialist approach for each participant of the case, and also to evaluate each option within the scope of moral rules, laws, and ethical codes without being consequential. Such evaluations were not encountered in the case analysis made without using the framework. Only the pre-service teachers explained why they chose that option in a few analyses:

TC2: *... I would talk to my colleague; because this issue is solved best by the teacher and the student. Since any action that I would take there could cause the student to break up with the other teacher, I would tell my colleague about the incident. (Scenario 3)*



TC3: ... When I saw the wrong situation done to the teacher, I would prefer to be with him, and I would warn the student if it was needed. On that day, the teacher may have walked away without doing anything and closed the subject, but every teacher could experience the same situation on another day. The same situation could have happened to İpek teacher. That's why I think it should be treated with empathy. (Scenario 6)

When we look at the analysis of the pre-service teachers, it is understood that TC2 evaluated the outcome of the option for her colleague and the student with a consequentialist approach. TC3, on the other hand, considered her option with a non-consequentialist approach, thinking about what she would like to do if she had been the person involved in this case.

In the analyzes made with the framework, it is seen that the pre-service teachers analyzed the case with a consequentialist and non-consequential approach as it is stated in FCA. For example, as given above (under the heading 'Findings about the step of 'identify some options'), TC1 identified two options for the solution of Scenario2 and evaluated them with a consequentialist and non-consequential approach in step five:

TC1:1-) Consequentialist Approach: • Ms. Gül: She does not care about Ayşe's development and treats all her students equally. •Ayşe: Her motivation towards the lesson decreases.

Non-Consequentialist Approach: The teacher remains indifferent to Ayşe's situation, but does not conflict with the ethical principle of Fair and Equal Treatment. In addition, giving Ayşe high marks to look after her progress may demotivate other students, which conflicts with the principle of Overseeing the development of students.

2-) Consequentialist Approach: • Ms. Gül: She does not act equally, she looks after Ayşe's development.

• Ayşe: Her motivation towards the lesson increases, but she may be exposed to offensive statements by her friends.

• Demet: Her motivation towards the lesson decreases, she feels herself in an unfair environment, and her trust in Ms. Gül is broken.

• Demet's Parents: They get angry with the teacher for acting unfairly and their trust is broken.

Non-Consequentialist Approach: When Ayşe gets a high grade, Ayşe's motivation towards the course increases, but this conflicts with the ethical principle of fair and equal treatment. The development of other students is not taken into account. If somehow it is revealed why she gave high marks to Ayşe, Ayşe's special situation will also be revealed, and in this case, Ms. Gül will conflict with the principle of retention of student's information....

Some pre-service teachers (TC4 and TC9) created tables at this step. Figure 2 is the table that TC4 created in step five while solving Scenario 4.

**Figure 2.**

The Table That TC4 Created in the Fifth Step While Analysing Scenario 4

5) Do a theoretical analysis of your options:

Consequentialism: What consequences are likely for all of the people involved?

	Teacher	Parent	The student	Other students
Refuses parent's request	His reputation in the class is maintained.  Presents authoritarian teacher profile  Presents a fair and equal teacher profile	Evolves negative thoughts about the teacher  May think that the teacher is treating equally	Thinks that the teacher does not love her/him.  Thinks that the teacher acts equally and fairly to other friends	Think that the teacher present a fair profile  Think that the teacher is an authoritarian person
Makes other branch teachers read it, if available	His reputation hurts.  Be a good example for other teachers  Presents a good teacher profile	Evolves positive thoughts about the teacher  May have negative pint of view about knowing the information of his children by someone else.	Regrets that her/his mark is known by someone else  Evolves positive thoughts about the teacher	The reputation of the teacher hurts.  Think that democracy is at the forefront in the class.

Nonconsequentialism: Would it be okay if everybody solved the problem according to each of your options? How would you like to be treated if you were involved in this particular case? Are any moral rules, laws, or ethical codes of ethics relevant?

	I would refuse the parent's request	I would like other branch teachers to check the exam paper
Fair and Equal Treatment	Not infringed	Infringed
Being a good example	Infringed	Not infringed

Looking at their analysis with the framework, it is seen that TC1 and TC4 evaluated the options in terms of results for all participants (consequentialist) and ethical principles (non-consequentialist). It is seen that pre-service teachers make evaluations in this step as required by FCA.

### Findings on the 'Consider Your Role as a Teacher' Step

In this step, pre-service teachers are asked to determine their stance in the case by considering their roles as a teacher. When the case analyses made without using the framework are examined, it is seen that only a few analyses refer to the role of the teacher:

*TC5: ... and I explain to the family that I should support these talents as their teacher. (Scenario 8)*

*TC9: ...I would not want to draw the image that I show favoritism among my students. (Scenario 5)*

As seen in the quotations above, TC5 states that as a teacher, he should guide his students in line with their abilities. TC9, on the other hand, mentions that as the teacher she should avoid contradicting the role of treating students equally. Teacher roles, which are an important point to be considered while analyzing an ethical case, are discussed in detail in the sixth step of the analysis made with the framework:

*TC1: It is among the responsibilities of the teacher to establish candid and trusting communication with the students, to avoid ill-treatment, to be a good example, to show love and respect, and to take care of the student's benefit. (Scenario 3)*

*TC7: Teacher has responsibilities such as fair and equal treatment. S/he must be understanding towards students. S/he should be a good example to students behaviorally and verbally. (Scenario 7)*

It is seen that TC1 and TC7 benefited from the 'Ethical Principles for Education and Training Service Providers Circular' (MONE, 2015) document when listing their roles as teacher. 'Candid and trust-based communication' is covered by the document in the explanation of the 'Overseeing the development of students' principle. 'Love and respect', 'Being a good example', 'Fair and equal treatment', and 'Relations with parents' are also the principles included in the document.

### **Findings on the Step of 'Educate Yourself as Time Permits'**

In the seventh step of the framework, it is expected that the documents, experts, or experienced people who will help in the solution of the case will be determined. In the analyzes made without using the framework, it is seen that there are few scenario analyzes in which the pre-service teachers stated that they could ask guidance counselor and administrators for help:

*TC6: ... Afterwards, I would go to the school guidance counselor and ask for help in this regard. If possible, I would ask to talk to the subject teacher and my student one-on-one. (Scenario 3)*

*TC9: ... Then I would try to talk to change their minds positively. If necessary, I would try to do this with the guidance counselor. (Scenario 8)*

*TC4: .... If the teacher is wrong, I try to warn her/him. If s/he does not admit her/his mistake, I would ask the school principal or the vice principal to address the issue. (Scenario 3)*

As can be seen, the pre-service teachers stated that they would apply for the help of the guidance counselor and the school administration. When we look at the analyzes in which the pre-service teachers applied for the help of an expert, it was seen that the scenarios were related to the categories of 'Protection of Colleague' and 'Balancing Parent Intervention', that is, the scenarios related to their relationships with a third person other than themselves and their students. Apart from this, pre-service teachers did not mention a source or expert they would refer to in their analysis without using a framework.

In the scenario analyses made with the framework, the pre-service teachers mentioned a source, expert, and experienced person they would refer to in the analysis of all scenarios, as required by FCA. When the pre-service teachers' writings for this step were examined, it was determined that most of the pre-service teachers referred to the 'Ethical Principles for Education and Training Service Providers Circular' (MONE, 2015), some of them cited other sources, and some of them stated that they would consult with experienced colleagues and school administration:

*TC1: I would examine the Ethical Principles for Education and Training Service Providers document and share this case with a more experienced colleague and get his opinion. (Scenario 2)*

*TC9: I would get help from the articles in the ethical principles for the students published by the Ministry of National Education and from my colleagues who are more experienced than me... (Scenario 3)*

*TC7: • There are many articles on ethical principles in teaching, they can be used.  
• General ethical principles can be used. (<https://www.icisleri.gov.tr/etikkomiyon/etik-ilkeler>)  
• ... (A national article on Ethics in Educational Organizations is provided)  
• Ethical Principles for Education and Training Service Providers (All Scenarios)*

*TC4: Help is received from colleagues and school management. (Scenario 4)*

When the analyses made with the framework are examined, it is seen that the pre-service teachers determine from which sources and people they will receive support for all scenarios independent of their category. Although the answers given to the seventh step in the analysis of all scenarios are similar, it is seen that the pre-service teachers are guided by the framework to identify a resource or expert that they can train themselves for each scenario.

### Findings on the Step of 'Make The Decision'

In the eighth step of the framework, it is expected to decide on one of the options defined in the fourth step, taking into account the evaluations made in the fifth, sixth, and seventh steps. When compared with the decisions made in the analyzes without using the framework, it is seen that the decisions of the students in some scenarios remained unchanged when the framework was used:

*TC2(Analysis without FCA): I would tell the parent that I would not make another exam, and I would also just tell his/her child would not take an oral exam, and I would explain the possibility that the child might have gotten a low grade specific to this exam. (Scenario 4)*

*TC2(Analysis with FCA): When we look at the options, if we apply option C (The teacher shows the answer sheet to the parent that there is no problem in his assessment, so he states that he will not make a re-evaluation), it will balance the relationship between the teacher and the parent and will have a less negative impact on the student. ( Scenario 4)*

*TC5(Analysis without FCA): If the students respect me more than the teacher exposed to the prank, I will verbally warn the students... (Scenario 6)*

*TC5(Analysis with FCA): ... I also warn the students again. Students are least negatively affected by this solution. If students respect me more, they will take into account my warning. (Scenario 6)*

*TC6 (Analysis without FCA): I don't find the idea of giving one-to-one (private) lessons to my student outside of school hours right, so this would not be my first choice. I would talk to a teacher that I know, who works at another school, and I would explain the situation to her/him. I would ask to give private lessons to my student. I would also support financially if needed. (Scenario 5)*

*TC6(Analysis with FCA): The first option (...I would talk to a teacher that I know who works at another school and explain the situation to her/him. I would ask to give private lessons to my student. I would support financially if necessary.) is the behavior that I would prefer to implement. I will both help my student and there will be no unfair treatment for my other students. (Scenario 5)*

Looking at the sample quotations given, it is seen that TC2, TC5, and TC6 included the decisions they made in their analysis without using FCA among the options they stated in the fourth step, and they preferred that option in the eighth step. It can be concluded that even if their decisions remained the same in their analysis done without and with the framework when they used the FCA, they made their decisions by analyzing them on paper along with other possible options (fifth step), considering their role as a teacher (sixth step) and referring to various sources (seventh step).

When the decisions made for all scenarios were analyzed, it was seen that only TC6 did not change any decisions when she used the framework, on the contrary, all the decisions of TC7 changed. It was observed that at least one decision of all other pre-service teachers changed when they used the FCA:

*TC4(Analysis without FCA):...I will also tell the branch teachers by asking them to keep this information confidential. I tell them that I do not want them to reflect on what I have said to the students. (Scenario 1)*

*TC4(Analysis with FCA): I try to get permission from parents. I want the success of my students, but I cannot take this responsibility alone. I involve the parents in this situation. (Scenario 1)*

*TC7(Analysis without FCA): I would give a higher mark to Demet, who is a successful student, since she works harder, she should be rewarded for her efforts ... (Scenario 2)*

*TC7(Analysis with FCA): As I mentioned in option 2, Ms. Gül explains the rubric to the students at the beginning of the year, saying that she will give extra points for their efforts besides the points she gives for grades, and she gets their comments and this is approved by the class. Thus, at the end of the year, no student expects an explanation from the teacher, just by looking at the grades and thinking that he or she will get higher. (Scenario 2)*

*TC8(Analysis without FCA): I would talk to my students' parents and ask permission to tell other teachers about this special situation. If my students' parents would let me, I would. But I wouldn't say this if it wasn't allowed. (Scenario 1)*

*TC8(Analysis with FCA): I used to talk to my student and his/her family and take their permission. Because people always want to choose the right one for themselves. For a parent, they want to choose the right one for their child. In such a situation, I would respect my student's ideas and follow a path that would be best for him. (Scenario 1)*

As seen in the samples, TC4, TC7, and TC8 made different decisions in the analyzes they made with the framework for the same scenarios than in the analyses they made without using the framework. It was understood that the decisions taken by TC4 and TC7 without using the framework are among the options in the fourth step of the framework and that they prefer one of the other options than their previous decision. However, TC8 did not include the decision of "trying to persuade the family", which is her decision in the analysis without the FCA, among the options in the analysis made with the framework. It can be inferred that TC8 has reached a new decision among completely other options.

When the sample quotations continued to be examined, it is understood that the moral level of the decisions taken by the pre-service teachers in their analysis using the framework increased. In the analysis he made without using the framework, TC4 decided to share the student's information without considering the relationships with students and parents by 'Personal Interest'. However, in his analysis done with the framework, he did plan to partner with parents so as not to do anything wrong (to be trustworthy) while striving for the well-being of his students, which overlaps with 'Maintaining Norms'. Similarly, in the analysis without the framework, TC7 decided in accordance with the 'Personal Interest' approach, arguing that Demet should get the highest score since she got high marks by ignoring the process in Scenario 2, however, in the analysis with the framework, TC7 stated about setting rules and adhering to them, which is in accordance with the 'Maintaining Norms'. On the other hand, TC8, in the analysis without the framework, decided to share the student's information in the condition of parent's permission. This decision is in accordance with the 'Maintaining Norms' schema. However, in the analysis with FCA, TC8 emphasized that in accordance with the 'Postconventional', the interest of the student should be considered before the interest of the teacher and the parents.

In addition to these findings, when the moral reasoning level of TC6, who did not change any of her decisions, is examined, it is seen that the 'Postconventional' score is higher than the others. It is also found that the 'Personal Interest' score of TC7, whose all decisions changed when the framework was used, is higher. In short, while the decisions of the pre-service teacher having the high moral score in the highest moral schema (post-conventional) did not change, the frame caused all the decisions of the pre-service teacher having the highest score of the lowest moral schema (personal gain,) change and caused the moral level of decisions increase. Below are a few examples of TC7's changed decisions:

*TC7(Analysis without FCA): -Mr. Deniz should not change his evaluation if he has received a university education on how to evaluate and thinks that he has made a fair evaluation according to this education. But he can make minor changes in his evaluation by meeting with other parents and taking their opinions. (Scenario 4)*



- I would do the scoring in a way that the grading of the design has many points. Since he created the design himself, I would give points accordingly. But I would give a little lower point to the design, to make him understand that it was wrong to let his father do it in the industry. (Scenario 7)

TC7(Analysis with FCA): - First of all, the teacher realizes that he can make mistakes and makes self-evaluation. At this point, he consults other science teachers in the school and gets their opinions about the correct and deficient aspects of the assessment method. As a result of the evaluation of these opinions, if he has not made a mistake in assessment and evaluation, he explains that it was decided not to repeat the exam under the consultation of the experts and information of the school administration. If an incorrect assessment was made, the exam is repeated with a new assessment format. (Scenario 4)

- Muhlis Bey reminds his students of the speech he made at the beginning and explains Can's mistakes on this issue. He states that Can's homework is a successful one that requires effort. He asks his students to evaluate. With Can's knowledge, an evaluation is made in front of the whole class. The teacher has the last word. Thus, the class Can realize the wrong situation and understand that they should not repeat it again. With this assessment, students do not think that they have been treated unfairly. Thinking as the situation that happened to their friend, happened on their own, they empathize and are fair and give Can the score he deserves while evaluating. (Scenario 7)

### **Findings on the Step of 'Decide How to Evaluate and Follow Up on Your Decision'**

In this step of the framework, pre-service teachers are expected to determine how they will evaluate the decision they made in the eighth step and monitor the results. The vast majority of analyzes without the framework did not specify how they would evaluate and follow up on the decision. However, some pre-service teachers mentioned that if a situation occurs as a result of a choice, they would implement another option:

TC1: First of all, I wouldn't get involved in this situation; already my colleague has warned the students. My involvement may also undermine my colleague's authority on the students. I expect them to overcome this situation among themselves. But if I see the same students repeating their behavior, I talk to my colleague and get involved. (Scenario 6)

TC7: I would try to convince the student's family by showing that there are other people who can do healthy work with their musical talent and that they are in a very good place. If they were not convinced, I would talk to the student and ask her/him if s/he wants it despite his family. If s/he wanted, I would continue to support her/him despite the family. (Scenario 8)

In analyzes done without the FCA given above, it is seen that TC1 and TC7 actually chose more than one option. However, both of them start by applying an option first; then it is understood that they plan to apply other options according to the results of this option. In short, they stated that they would monitor the results of their decisions and accordingly decide how they would act in the future.

When the analyses made with the framework are examined, it is seen that some of the pre-service teachers wrote in the ninth step how they would follow their decisions as desired and how they would act when faced with a similar situation in the future:

TC7: A comparison is made between the students' first exams and the results of the repeated exam. Attitudes of parents are evaluated. The opinions of the group teachers on the subject are evaluated. Student satisfaction is taken into account. I would do the same in the future. (Scenario 4)

TC4: The students' behaviors in a certain process can be controlled. If I encounter such a case in the future, I will make the same decision. Because it is not a case to be passed over for student development. (Scenario 6)

*TC3: I would not cut off my communication with my student, I would follow up whether s/he would experience the same situation again. I would also start observing my colleague about her/his behavior toward other students. I would stand by my student in the future. (Scenario 3)*

TC7 took a decision in consultation with the group teachers in the eighth step to get their opinions on whether there was a mistake in the exam and to repeat the exam if there was a mistake. In the ninth step, TC7 stated that in case of repeating the exam, he would monitor and evaluate the difference between the two exam grades, the attitudes of parents and students, and the opinions of the group teachers. TC4 stated that by observing the student's behaviors for a while, he would monitor and control his decision. TC3 specified that by communicating with the student, whether the student would experience the same problem would be checked. TC7, TC4, and TC3 stated that they would take similar decisions in the future and talked about how they would follow their decisions and what decision they would take in a similar situation in the future. TC9, on the other hand, did not mention how they would follow their decisions, however only stated how they would decide in a similar situation in the future:

*TC9: I would apply Ayşe's private lessons in the future. (Scenario 2)*

TC9 wrote down the decision she took in the eighth step and wrote that she would apply it in the future as well.

It is seen that some of them do not understand what is expected from them at this stage:

*TC5: While watching my decision, I do not ignore the effort of my life and make a good evaluation. However, I do not deduct points from other students just because Can's homework is much more costly while theirs are cheaper than it. (Scenario 8)*

*TC 6: First, the guidance counselor is interviewed and his opinion is taken, and then the decision is implemented according to his/her opinions. (Scenario 3)*

As it turns out, TC5 and TC6 understood monitoring the decision as the process of implementing the decision rather than following the results, and monitoring the future effects of the decision.

## DISCUSSION

Ethics and Morals in Education course is a compulsory vocational knowledge course in teacher training programs in Türkiye. In this study, the effect of using the FCA, which was developed by Warnick and Silverman (2011) in the professional ethics education of pre-service teachers. The analyzes made by the pre-service teachers for the same scenarios without using and with the FCA were examined within the scope of the nine steps of the framework. The conclusions drawn from the findings obtained from the analyzes are discussed below.

First of all, it is understood that the framework directs the pre-service teachers to determine what is known about the case, what needs to be known more, and the participants of the case. This allow them to better understand the case. The majority of the analyzes made without using the FCA do not include what is known about the case, what is needed to be known, and participants. In all of the analyzes made with the framework, although the pre-service teachers did not mention what should be known about the case, they explained what is known and the participants of the case. Even though, this is not what was expected in the framework, some of them added their inferences to what is known about the case. To solve the case in a wright way, it is important to understand the case well (Mathur & Corley, 2014; Warnick & Silverman, 2011). For this reason, this step of the framework is important and should be explained better. While introducing the framework to the pre-service teachers, this should be emphasized by teacher educators that determine what is known and what needs to be learned about the

case without adding their own comments.

Moreover, the pre-service teachers identified the ethical problem in the case more clearly in their analysis with the framework and they produce more than one option for the solution. On the other hand, in the analyzes made without using the framework, it was revealed that pre-service teachers choose a single option for the solution without identifying the ethical problem and did not evaluate it. The step, in which the pre-service teachers clearly state the ethical problem, gives them and the instructor of the professional ethics course, an idea about why and how they handle the case. For example, it is understood that a pre-service teacher did not see any ethical problem in three scenarios in the analysis that were made with the framework, while it was not noticed in the analyzes made without using the framework. Pre-service teachers' identification of ethical problems and conflicting principles is an important step toward the solution (Mathur & Corley, 2014, Warnick & Silverman, 2011). In addition, identifying the ethical problem is the first step of the ethical decision-making process (TPA, 2004).

Furthermore, it has emerged as another advantage of FCA that pre-service teachers make decisions by comparing solution options with each other by considering all participants of the case. Tirri and Kuusisto (2022) underline that teachers should consider for all participants 'equality', 'equity' and 'needs' of the case for distributive justice. In addition, one of the aims of the ethical education for all those in educational roles is to contribute to making explicit justifications for particular solutions to ethical issues (Buchanan et al., 2022). By justifying the options, pre-service teachers' ethical sensitivity enhanced. The decision of most of the pre-service teachers in solving the case in at least one scenario changed according to the decision they made in the analysis without the framework. Moreover, the moral level of changing decisions increased mostly when the FCA was used. It was found that the pre-service teacher whose all decisions changed had a low moral schema (Personal Interest), and the pre-service teacher whose solutions did not change had a high moral schema (Postconventional). In the literature, there are studies showing that the professional ethics course increases the level of moral reasoning (Cummings et al., 2010; Korkut & Aktaş, 2019; Krawczyk, 1997; Rest & Narvaez, 1994; Schlaefli et al., 1985). In addition to them, this result reveals that using the FCA in case analysis in the scope of professional ethics courses raises the moral level of the decisions of pre-service teachers.

Even if their decisions did not change, it was understood that under the guidance of the framework, pre-service teachers based their decisions by comparing them with other options (at step five), reviewing their roles as teachers (at step six), and determining the resources that may help (at step 7). Teachers need to justify their decisions during solving ethical problems; since they take responsibility for their ethical decision; in addition, ethical teachers are conscious of their decisions; they evaluate, review, reflect and improve their practices and policies (Mathur & Corley, 2014). However, although most of the pre-service teachers based their decisions by the help of the framework, they did not evaluate and reflect in the last step as it is required. In other words, it was found that the pre-service teachers did not understand correctly what was expected from them in the last step or they did not know the way how they reflect on. Reflecting is an important part of teacher professional ethical development; since morality can be developed, also teachers can learn also from their mistakes in growth-mindset manner (Tirri & Kuusisto, 2022). Therefore, this step of the framework should be explained better to pre-service teachers.

Finally, it was concluded that the pre-service teachers mostly took the 'Ethical Principles for Education and Training Service Providers Circular' (MONE, 2015) document as a source in 'identify and define the ethical problem', 'consider your role as a teacher' and 'educate yourself as time permits' steps of FCA. In certain cases, such as ethical treatment of a child, it is hard to debate the right and wrong on personal values perspective, rather ethical codes provide a relatively fixed and formally adopted anchor for decision-making (Malone, 2020). Since the ethical codes of the teaching profession in Türkiye have not been determined yet, it is the most up-to-date national document for pre and in-service teachers, this document was examined in the theoretical and practical part of the Ethics and Moral in Education course. Therefore, it is thought that pre-service teachers primarily emphasized it. In the analyzes made without the framework, no evidence was found that this document was used as a source. Learning ethical

principles, codes or the common language of ethics is among the aims of professional ethics (Mathur & Corley, 2014; Maxwell & Schwimmer, 2016; Warnick & Silverman, 2011); from this point of view, the framework enabled the professional ethics course to achieve its purpose.

## CONCLUSION

As a result, FCA, which is suggested by Warnick and Silverman (2011) for pre-service teachers to use when solving professional ethics scenarios, helps pre-service science teachers to define the case better, to produce multiple options for the solution of the case, and to consider these options by considering their roles as teachers and various sources. In this way, the decisions taken by the pre-service teachers for the solution of some scenarios have changed. The decisions of the pre-service teacher with a low moral schema were changed more than those of the pre-service teacher with a high moral schema. Moreover, it has been observed that the moral level of changing decisions often rises. At the same time, it has been understood that the framework allows pre-service teachers to justify their decisions. Pre-service teachers emphasized national principles of professional ethics in most of their analyzes with the framework and therefore based their decisions on this document. Thus, it is understood that they have experienced this national document and how they can benefit from it as a resource.

## Recommendations

Based on all these results, FCA has many positive effects on pre-service teachers' decisions than analyzing cases without FCA. Therefore, it is recommended teacher educators to introduce FCA to pre-service teachers within the scope of the Ethics and Morals in Education course and to allow them to use it during case analysis process. While introducing it, all its steps especially the first and the last step, which was not well understood by the participants of this study, should be explained clearly. Pre-service teachers should be warned not to use their comments while describing the case in the first step and directed to reflecting on their decisions in the last step. Maybe, a class discussion can be held while reflecting so that they can criticize their own and peers' choices. In addition, other countries' ethic codes and principles for teaching profession should be introduced and used as a resource while deciding during case analysis; since teaching profession has many common principles accepted internationally.

Since, this study is a single case study, its findings are limited to the participants who are pre-service science teachers. Therefore, examining the effect of FCA on pre-service teachers from other levels and branches is suggested for future research. In addition, as follow-up research, it is recommended to carry out an action research within the scope of the Ethics and Morals in Education course by preparing an action plan using the mixed teaching method proposed by Warnick and Silverman (2011). In such a study, effects on pre-service teachers moral reasoning levels would be examined. Therefore, an efficient way for instructing the Ethics and Morals in Education course could be revealed.

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## APPENDICES

### Appendix 1: Example Ethical Dilemmas Faced By Secondary School Teachers Form

#### *Scenario 1*

Mr. Kerem is a guidance counselor and, due to his branch, he has information about the students themselves and their families at the school. Mr. Kerem knows the students with special conditions at the school; however, other branch teachers do not have this information. Mr. Kerem realizes that in some cases, his colleagues behave, react or evaluate students in a way that they would not have exhibited if they had known about their special condition. He is undecided about whether to inform his colleagues about the special situations of the students. (Open ended)

- What would you do if you were the person in the case?

#### *Scenario 2*

Ms. Gül finds the effort of Ayşe, who does not receive much support from her family, but struggles on her own, very valuable. She gave a high grade to Ayşe's performance in class in order to reward this effort. In this case, this student's end-of-year grade would be the same as that of Demet, a high-achieving student in the class. Demet realized that Ayşe received the same grade as herself at the end of the year; although her midterm exam grades are not high; and she asks Ms. Gül for an explanation. (Closed-ended)

- What would you do if you were the person in the case?

#### *Scenario 3*

Ms. Zeynep received a complaint from a student in her classroom. The student said that another branch teacher insulted him during the lesson, in front of his friends. Although Ms. Zeynep was very upset about the situation and found her colleague to be unfair, she told the student that she was sure, there was a misunderstanding. She tried to persuade and calm the student by saying that s/he misunderstood the situation. (Closed- ended)

- What would you do if you were the person in the case?

#### *Scenario 4*

A parent who did not like his child's grade wanted to meet science teacher Mr. Deniz, after the exam he had done. Mr. Deniz, who accepted the parent's request for a meeting, showed the answer key during that meeting and explained the missing and incorrect answers of the student to the parent. However, the parent, who was not satisfied with these, criticized the teacher's answer key and wanted the teacher that a reputation of this exam or making his own child an oral exam. However, there is no oral exam among the assessment and evaluation methods that Mr. Deniz has determined to apply. In addition, Mr. Deniz believes that he has applied a valid and reliable exam and made a fair evaluation. (Open –ended)

- What would you do if you were the person in the case?

#### *Scenario 5*

Mr. Gürsoy is a secondary school teacher and there is a student in his class who comes from a low socio-economic level family with less family support than other students. The student lags behind in academic success in the class due to his disadvantaged situation. However, Mr. Gürsoy believes that this student's

success can easily increase if he is supported a little more academically. Gürsoy Teacher wants to help his student overcome this disadvantageous situation to some extent by giving him private lessons separately from other students, outside of school hours. However, giving a privilege to a student in this situation makes him think. (open-ended)

- What would you do if you were the person in the case?

### **Scenario 6**

During break, İpek Teacher witnessed a student prank her colleague. The event took place in front of the other students and the students laughed and supported this action of their friends. The teacher who was exposed to the treatment warned the student verbally and closed the issue by moving away from the locale. Ms. İpek could not intervene in this situation where she was a spectator; however, she does not find it appropriate to close the issue in such a way. (open ended)

- What would you do if you were the person in the case?

### **Scenario 7**

Science teacher Mr. Muhlis asked his students to develop an engineering product for the solution of a problem they identified. Students consulted Mr. Muhlis at every step of this process, which required them to deal with many science subjects together, and he guided them. The students, who identified their problems, designed their projects, and determined the product costs, organized an exhibition at the end of the semester to share their work carried out during the semester with their friends. Many students developed the prototype of the products they designed with simple materials such as cardboard, wire, batteries, foam cups or showed them with drawings on paper. However, Can, whose father was an engineer, had the product he developed made in the industry. The teacher knows that under normal circumstances, the cost of this will exceed many students' budgets. Therefore, he stated at the beginning of the semester that he did not expect such an expensive project from his students. However, the effort and the cost that Can gave to his project makes the teacher think. (open ended)

- What would you do if you were the person in the case?

### **Scenario 8**

Hazal Teacher, a music teacher, discovers a student's interest in music, who does not have a very healthy family structure. In order to reveal the student's talent, she tries to encourage the student in the lessons and makes suggestions for activities related to music during extracurricular hours. However, the family is disturbed by this situation. They say that they do not want their daughters to deal with music. The student, on the other hand, does not want to lose the support of the teacher who discovered his talent and dreams of a career in the field of music. (open-ended)

- What would you do if you were the person in the case?

## Appendix 2: Turkish Translation of A Framework For Case Analysis

### Örnek Olay Analiz Çerçevesi

- 1) *Olay ile ilgili bilgiyi derle:* Gerçekler neler? Daha fazla ne öğrenebilirim?
- 2) *Çeşitli paydaşları/katılımcıları göz önünde bulundur:* Bu olay ile ilgili kişilerin hepsi kimdir? Bu kişiler olanları nasıl değerlendirirler? Gerçekler bütün ilgili taraflarca paylaşılmış mı?
- 3) *Etik sorunu belirle ve tanımla:* Hangi ahlaki kurallar ve değerler çakışıyor?
- 4) *Bazı seçenekler belirle:* Hangi seçenekler bu durum için uygun düşer?
- 5) *Seçeneklerin için bir teorik analiz yap:*
  - Sonuççu: Olaya dâhil olan tüm kişiler için olası sonuçlar nelerdir?
  - Sonuççu Olmayan: Seçeneklerinden birine göre problem çözülsün her şey tamam olacak mı? Eğer bu olaya dâhil olsaydın nasıl müdahale edilsin isterdin? Bu konu ile ilgili ahlaki kurallar, yasalar ya da etik kodlar var mı?
- 6) *Bir öğretmen olarak rolünü dikkate al:* Öğrencilere disipline ya da mesleki gruplara karşı hangi özel sorumlulukların var?
- 7) *Zamanın izin verdiği ölçüde kendini eğit:* Yardım edecek makale, uzman ya da deneyimli kişiler var mı?
- 8) *Karar ver:* Bütün bunlara göre hangi hareket sana en iyisi görünüyor? Sebeplerini belirt.
- 9) *Kararını nasıl değerlendireceğini ve takip edeceğini belirle:* Karar nasıl izlenecek? Gelecekte de benzer şeyi yapar mıydın?

## TÜRKÇE GENİŞLETİLMİŞ ÖZET

Profesyoneller, işleri ile ilgili bir durumda doğruya karar verirken aldıkları kararları öznel fikirlerine dayandırmak yerine ortak standartlara dayandırır (Maxwell ve Schwimmer, 2016). Bu ortak standartlar, mesleki etik ilkeler ve kodlardır (Malone, 2020). Öğretmenlik mesleği etik kod ve ilkeleri ile ilgili Türkiye'deki ulusal belgeler araştırıldığında Eğitim-Öğretim Hizmeti Verenler İçin Mesleki Etik İlkeler Genelgesi (Milli Eğitim Bakanlığı [MEB], 2015) bulunduğu görülmektedir.

Öğretmenlerin ve öğretmen adaylarının bu etik ilkelerden haberdar olması etik eğitimi ile mümkündür. Etik ilke ve kodların öğretimi etik eğitiminin bir parçasıdır. Warnick ve Silverman (2011), etik eğitimin 3 yolu olduğunu belirtmektedir; (1) etik ilke ve kodların öğretimi, (2) başlıca etik felsefi teorilerinin (örneğin faydacılık, Kant'ın deontoloji kuramı, bakım/özen etiği vd.) öğretimi ve (3) örnek olay analizidir. Etik ilkeleri ve kodları bilmek ya da başlıca etik felsefelerini bilmek etik eğitimi için gerekli ancak yeterli değildir. Zorunlulukların çakıştığı özel durumlarda hangi kavramların nasıl uygulanacağı özel bir muhakeme becerisi gerektirir ki bu da etik eğitiminde etik kavramların olaylara uygulanmasına olanak verilmesi ile mümkündür (Maxwell ve Schwimmer, 2016). Bu sebeple, etik eğitiminde örnek olayların kullanıldığı karma bir öğretim önerilir (Warnick ve Silverman, 2011).

Etik eğitiminde örnek olaylar kullanılırken, öğrenciler öğretmen tarafından ahlaki bir sorun içeren bir örnek olayı (bir senaryo, bir gazete haberi...) analiz etmeye yönlendirilirler. Örnek olaylar sayesinde öğretmen adayları etik ile ilgili öğrendikleri kavramları öğretmenlik hayatlarında karşılaşılabilecekleri durumlara uygulama becerisi kazanırlar ve aynı zamanda böyle bir uygulama, onların kişisel ahlaki sezgilerinin mesleki rollerinde başvuracakları önemli bir kaynak olmadığı yönündeki farkındalıklarını artırır (Maxwell ve Schwimmer, 2016). Bu nedenle örnek olayların öğretmenlik mesleği mesleki etik eğitiminde kullanılması dikkate alınmalıdır. Bu çalışmada, mesleki etik dersinde Warnick ve Silverman (2011) tarafından önerilen 'Örnek Olay Analiz Çerçevesi'nin kullanılmasının ortaokul fen bilimleri dersi öğretmen adaylarının etik olayları çözümlenmeleri üzerindeki etkisinin incelenmesi amaçlanmıştır.

Araştırma, nitel araştırma desenlerinden Bütünsel Tek Durum Çalışması deseninde tasarlanmıştır. Durum çalışması, güncel bir örnek olayı veya durumu derinlemesine kendi gerçek dünyasında (otantik ortamda) incelemekle ilgilidir (Yin, 2014). Bu çalışmada da Eğitimde Etik ve Ahlak dersi kapsamında (otantik çevrede) gerçekleştirilen örnek olay incelemeleri sırasında kullanılan analiz çerçevesinin farklı ahlaki şemalara sahip fen bilimleri öğretmen adaylarının etik olayları çözümlenmeleri üzerindeki etkisi bir durum olarak incelenmiştir.

Çalışma grubunun belirlenmesinde Cesur ve Topçu (2010) tarafından Türkçe uyarlaması yapılmış olan Değerleri Belirleme Testi- DBT Değerleri Belirleme Testi-DBT tanılayıcı olarak uygulanmıştır. Test sonucunda puanı hesaplanan üç ahlaki şemadan her biri için baskın olarak yüksek puan almış, şemaların ikisinden birbirine yakın puan almış ve tüm şemalardan birbirine yakın puanlar almış en az birer öğretmen adayı barındıracak şekilde çalışma grubu belirlenmiştir. Bu şekilde amaçlı örnekleme yöntemlerinden olan maksimum çeşitlilik örnekleme ile belirlenmiş, 2021-2022 akademik yılında Eğitimde Etik ve Ahlak dersini alan ve çalışmaya katılmaya gönüllü dokuz (yedi kadın, iki erkek) ortaokul fen bilimleri dersi öğretmen adayı çalışmanın katılımcısı olmuştur. Yalnızca bu dokuz öğretmen adayının doldurdıkları formlar analiz edilse de ders sürecinde son dört hafta boyunca yapılan tüm işlemler dersi alan tüm öğretmen adaylarının katılımıyla gerçekleştirilmiştir.

İşlemlerin ilk haftasında, Eğitimde Etik ve Ahlak dersinde, Ortaokul Öğretmenlerinin Karşılaştığı Örnek Etik İki-lemler Forumu iki ders saati süresince uygulanmış ve öğretmen adaylarının formda yer alan senaryoları çözümlenmeleri istenmiştir. Çözümleme sürecinde öğretmen adayları bireysel çalışmış, olaylar sınıf geneleninde ya da kendi aralarında tartışılmamış, bunun için gerekli uyarılar yapılmıştır. Takip eden haftada, iki ders saati boyunca Örnek Olay Analiz Çerçevesi öğretmen adaylarına tanıtılmış ve çerçevede yer alan dokuz maddenin her biri için hangi soruları kendilerine soracakları ve her soruda



cevabı kendilerinde nasıl arayacakları Warnick ve Silverman'ın (2011) çalışmaları kaynak alınarak açıklanmıştır. Üçüncü hafta ise Ortaokul Öğretmenlerinin Karşılaştığı Örnek Etik İnkilemler Forumu tekrar uygulanmış bu sefer senaryoları çerçeveye göre analiz etmeleri öğretmen adaylarından istenmiştir. Bu ders sürecinde de gene örnek olayların tartışılmasına izin verilmemiş, örnek olayları herkes bireysel olarak çözülemiştir. Son hafta ise, veri toplama süreci sona ermiş olduğundan ders kapsamında örnek olaylar tek tek sınıf içi tartışma ile analiz çerçevesi kullanılarak incelenmiştir. Bu şekilde Eğitimde Etik ve Ahlak dersinin gerekliliği eksiksiz yerine getirilmiş; aynı zamanda da uygulama süreci gerçekleştirilmiştir. Devamında, öğretmen adaylarının aynı senaryolara yönelik çerçeveyi kullanmadan ve kullanarak yaptıkları analizler, çerçevenin dokuz basamağı kapsamında etimsel analiz ile incelenmiştir. Analizlerden elde edilen bulgulardan yola çıkarak varılan sonuçlar aşağıda tartışılmıştır.

İlk olarak, analiz çerçevesinin öğretmen adaylarının olayı daha iyi anlamalarına olanak verecek şekilde olay hakkında bilinenleri, daha fazla bilinmesi gerekenleri ve olayın katılımcılarını belirlemesi yönünde öğretmen adaylarını uyardığı anlaşılmaktadır. Çerçeve kullanılmadan yapılan analizlerin büyük çoğunluğunda olay ile ilgili bilinenler, bilinmesi gerekenler ve katılımcılar yer almamaktadır. Olayın çözümünde, olayın iyi anlaşılması önemlidir (Mathur ve Corley, 2014; Warnick ve Silverman, 2011). Bu sebeple çerçevenin bu basamağı önemlidir ve öğretmen adaylarına çerçeve tanıtılırken bu basamağında kendi yorumlarını katmadan olay ile ilgili bilinenleri ve öğrenilmesi gerekenleri belirleyecekleri dersi veren öğretim elemanları tarafından önemle vurgulanmalıdır.

Diğer bir sonuç olarak öğretmen adaylarının çerçeve ile yaptıkları analizlerde olaydaki etik sorunu daha açık olarak belirledikleri, çözüme dair birden fazla seçenek ürettikleri ve seçeneklerini tüm katılımcıları göz önünde bulundurarak değerlendirdikleri; ancak çerçeve kullanmadan yaptıkları analizlerde etik sorunu belirlemeksizin çözüme dair tek bir seçenek belirleyip onu değerlendirmedikleri ortaya çıkmıştır. Öğretmen adaylarının belirledikleri etik sorunu çözmek üzere birden fazla seçenek üretmeleri ve bu seçenekleri birbiri ile kıyaslayarak karar vermeleri sayesinde, öğretmen adaylarının çoğunun en az bir senaryodaki olayın çözümünde verdiği karar değişmiştir. Üstelik çoğunlukla değişen kararların ahlaki düzeyi analiz çerçevesi kullanıldığında yükselmiştir. Kararlarının hepsi değişen öğretmen adayının düşük ahlaki şemaya (Kişisel Kazanç), hiç değişmeyen öğretmen adayının ise yüksek ahlaki şemaya (Uzlaşım Sonrası) sahip olduğu anlaşılmıştır. Bir başka değişle, analiz çerçevesi kullanmak, etik olayları çözümlmek üzere alınan kararları değiştirmiş ve ahlaki düzeyini yükseltmiştir.

Son olarak, öğretmen adaylarının analiz çerçevesinin etik sorunu belirleme, öğretmen olarak rollerini belirleme ve kendini eğitim basamaklarında çoğunlukla 'Eğitim ve Öğretim Hizmeti Verenler İçin Mesleki Etik İlkeler' (MEB, 2015) belgesini kaynak aldıkları sonucuna varılmıştır. Türkiye'de öğretmenlik mesleği etik kodları henüz belirlenmediği, öğretmenlik meslek etiği ile ilgili en güncel ulusal belge olduğu ve Eğitimde Etik ve Ahlak dersinin teorik ve uygulama kısmında bu belge incelendiği için öğretmen adaylarının öncelikli olarak onu vurguladığı düşünülmektedir. Belge, öğretmen adaylarının hizmetiçi süreçlerinde karşılaştıkları etik sorunlarda da başvurmaları gereken bir kaynak olduğundan çerçeve kullandıkları analizlerde belgeyi kaynak almaları istenen bir durumdur. Çerçeve olmadan yapılan analizlerde bu belgenin kaynak olarak kullanıldığına dair bir bulguya rastlanılmamıştır.