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Student Opinions On The Attitudes Of Faculty Members And The Effect Of The Exams They Applied On The Development Of Critical Thinking Skills

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Abstract

Critical thinking skill, which is one of the sub-dimensions of thinking, is extremely important in terms of raising individuals who can question information. Undoubtedly, teachers and faculty members have a great responsibility in acquiring critical thinking. The aim of this study is to examine in depth the views of university students about the attitudes of faculty members and the effect of the exams they take on the development of critical thinking skills. Qualitative research method was used in the study. The study group of the research consists of 12 students studying at Amasya University. Data were collected with a semi-structured interview form. The analysis of the data was made with the descriptive analysis method. According to the data obtained, it has been seen that the lecturers mainly use the presentation method in the lessons, the exams are knowledge-oriented, based on memorization and cannot develop critical thinking. Students think that faculty members should be respectful, self-sacrificing and good listeners to all opinions. In addition, they stated that the exams should not be completely knowledge-oriented and that the exams should be prepared in an open-ended style with comments and thought-provoking questions. They think that critical thinking skills can be achieved in comfortable environments by reading a lot, asking questions, making philosophical conversations, creating the awareness that criticism is not a negative thing, and effective communication.

Keywords: Critical thinking skills, Attitudes of faculty members, Applied Exams

Introduction

With the developing technology, life has changed in cultural, social, political and economic aspects. This change has brought with it the need to expand the human horizon. Unlimited use of imagination and broad thinking have been both a necessity and a result of all developments (Aybek, 2007). Today, as a necessity of the modern world, it has become a necessity for people to have thinking skills. The ability to learn to think comes to the fore rather than exchange of information in educational activities. For this reason, modern schools try to raise individuals as critical thinking, producing and knowing the ways to reach information. In this direction, curricula are also prepared to enable students to gain thinking skills (Akbıyık & Seferoğlu, 2006). Considering the 21st century understanding of education, it is seen that it is aimed to raise students as individuals who are far from the old classical understanding, who are student-centered and who can question, argue, avoid dogmas and use their critical thinking skills (Demirkaya, 2008). Thinking skills, which are emphasized on, consist of basic operations, creative thinking, decision making, problem solving and critical thinking skills (Seferoğlu & Akbıyık, 2006).

Critical thinking is the whole of the skills of generating and organizing ideas, making inferences, making comparisons, analyzing facts, evaluating arguments, defending ideas and solving problems (Gürkaynak, Üstel & Gülgöz, 2003). Although critical thinking is not an innate feature, it can be taught, explained and applied. One of the aims of education is to enable students to acquire critical thinking skills, which are accepted as a set of skills that facilitate access to information and overcome

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difficulties (Semerci, 2003). A person who has acquired critical thinking skills; they can ask appropriate questions, collect information on the subject and transform this information creatively, question authority, belief, dogma and doctrine, and discover new information (Özdemir, 2005).

It is difficult to develop critical thinking skills on one's own. For this reason, it is the responsibility of schools, especially higher education institutions, to acquire the skills of critical thinking and analyzing information today (Korkmaz, 2009). The critical thinking skill, which is important at all levels of education, comes to the fore more in universities that aim to think freely and scientifically. It is important to bring critical thinking skills to undergraduates (Tümkaya & Aybek, 2008). Faculty members play an extremely important role in the development of critical thinking, which is accepted as a dimension of thinking. The sole purpose of faculty members should not be merely to convey information. At the same time, he/she should be able to influence students with the questions he/she asks, criticize himself and his students, be frank, curious and inquisitive (Semerci, 2003). Teachers, who should be people who are unprejudiced, are able to establish relationships, be tolerant of ambiguities, open, skeptical, seeking the truth, delaying judgments, seeking reason-evidence, asking high-level questions and reflecting their critical thinking skills to their behaviors (Alkın Şahin & Gözütok, 2013). In addition to having critical thinking skills, teachers should also have the competence to know how to gain this skill to students (Dutoğlu & Tuncel, 2008). Various teaching strategies are applied to develop critical thinking and problem solving skills. Well-trained teachers are needed to teach thinking skills using these methods. The lack of critical thinking knowledge and skills of teachers is the biggest obstacle in front of the schools' aim of raising critical thinking individuals. In order for students to be individuals who are open to discussions, question well, participate, look for alternatives, determine estimates and priorities, and make sense of various views, teachers who will teach the lessons should be trained to have these competencies (Korkmaz, 2009). The characteristics of teachers and their attitudes in lessons are effective on students' critical thinking skills. For this reason, in this study, the attitudes of the faculty members and their views on the exams they have applied will be taken from the eyes of the students. It is thought that the study will be important because it will provide us with information about how the attitudes of the faculty members and the exams they take are effective in developing critical thinking skills.

The aim of the study is to examine the attitudes of the faculty members and their views on the effect of the exams they take on the development of critical thinking skills of university students. For this purpose, answers to the following questions are sought throughout the research:

1. What are the methods and techniques used by the lecturers in their lessons?
2. What are the negative aspects of the attitudes of the faculty members and the exams they have administered?
3. What should be the ideal teacher attitudes in the development of critical thinking skills?
4. How should exam practices be used to develop critical thinking skills?
5. How can critical thinking skills be developed?

Method

In this chapter, information about the method of the research and the design of the research, the study group, the collection and analysis of data are given.

Research Method and Research Design

This study, which was carried out with the aim of determining the attitudes of the faculty members and the effects of the exams they applied on the development of critical thinking skills, is a qualitative study. Qualitative research is a research method mostly used in social sciences. It is a research method that provides more detailed collection of data and examination of questions instead of statistical methods. Qualitative studies provide a more detailed understanding of the subject in many respects by working more deeply with less data instead of explaining the data numerically with statistics (Bayyurt & Seggie, 2021). Qualitative studies are inductive processes that focus on experience, meaning and interpretation (Turan, 2018). Qualitative studies are studies that are sensitive to the natural environment, have a participatory role of researchers, have flexibility in the research design, try to reveal perceptions, and which are conducted with a holistic approach and

inductive analysis for the purpose of obtaining qualitative data. In qualitative research, mostly environmental data, process data and data on perceptions are collected (Yıldırım & Şimşek, 2018).

In this study, the phenomenology design, one of the qualitative research approaches, was used. Phenomenology studies are studies that focus on the subjective experience and consciousness of people and explain how people experience a phenomenon (Sart, 2021). Phenomenological studies are a type of qualitative research used to study effective, emotional, and often intense human experiences. It consists of people's experiences and social lives (Koçak Canbaz & Öz, 2018). Phenomenology is used in studies aiming to investigate the phenomena which is known but not fully understood (Yıldırım & Şimşek, 2018).

Studygroup

The study group of the research consists of 12 students studying at Amasya University. The students participating in the study were coded as P1, P2, P3, … and P12. Participants were determined according to the maximum diversity sampling technique. In maximum variation sampling, units that can represent the extremes are selected. Dimensions specific to each situation in the sample are defined in detail and common values and themes between heterogeneous situations are revealed (Kabakçı Yurdakul, 2013). Although a relatively small sample is created, maximum diversity of people suitable for the problem addressed is provided (Yıldırım & Şimşek, 2018). In studies conducted with maximum diversity sampling, which aims to find and define themes containing some differences, the results and findings can be rich compared to studies conducted with others ampling methods (Koç Başaran, 2017).

Table 1
Demographic Information of Participants

Participant	Gender	Department of Education	Class	Age
P1	M	Social Sciences Teaching	4	26
P2	M	Social Sciences Teaching	3	22
P3	F	Social Sciences Teaching	3	22
P4	F	Social Sciences Teaching	4	21
P5	F	Social Sciences Teaching	4	21
P6	F	English LanguageTeaching	3	22
P7	M	Elementary School Teaching	3	21
P8	F	Preschool Teaching	3	23
P9	F	English LanguageTeaching	3	22
P10	M	English LanguageTeaching	3	21
P11	M	ScienceTeaching	4	23
P12	F	Turkish LanguageTeaching	4	29

As seen in Table 1, 7 (58%) of the students participating in the study were female and 5 (42%) were male. Students are educated in Social Studies Teaching, English Language Teaching, Classroom Teaching, Preschool Teaching, Science Teaching and Turkish Language Teaching programs. The ages of the participants ranged from 21 to 29.

Data Collection and Analysis

The data of the study were obtained with a semi-structured interview form. Semi-structured interviews are stretching interviews in which the topics are determined before the interview and approximately the same questions are asked to each participant (Buran, 2021). In semi-structured interviews, the interview form consists of semi-structured questions. There are no predetermined phrases and question details, the questions are flexible. Therefore, the researcher can ask additional questions to the participant during the study. The interview mostly consists of questions and problems to be clarified. Specific data are obtained from the participants (Turan, 2018). In these interviews, which are flexible compared to structured interviews, the researcher can ask the participant additional sub-questions if he deems necessary and enable the participant to open the answers he has given. If the participant gave answers to some questions in another question during the interview, the researcher may not ask these questions to the participant again (Türnüklü, 2000).

While creating the interview form, the relevant literature was examined and interview questions were prepared in the light of the obtained data. After the questions were prepared, a preliminary application was made and it was tested whether there were any incomprehensible expressions in the questions. Afterwards, the form was created by taking expert opinion on the form. The interview form consists of 7 open-ended questions. The interviews were conducted over the phone and were recorded with permission. The recordings of the interviews, which lasted an average of 30 minutes, were then transcribed and analyzed. The analysis of the study was made with the descriptive analysis method. In descriptive analysis, first the title or themes are determined. According to these determined titles and themes, the data are explained and the findings are revealed and interpreted (Çepni, 2010). These data, which are interpreted according to the themes, are also supported by the sentences directly quoted from the interviews (Cansız Aktaş, 2014). The data can be arranged according to the themes as well as the questions asked during the interview. Descriptive analysis consists of the stages of creating a framework, processing the data according to the thematic framework, defining the findings and interpreting the findings (Yıldırım & Şimşek, 2018).

Findings and Review

The data obtained in this section were analysed in the direction of the research questions in the form of methods and techniques used by the lecturers in the lessons, attitudes and negative attitudes in exams, ideal teacher attitudes, how exam practices should be and suggestions for improving critical thinking skills. The first research question of the study is "What are the methods and techniques used by the lecturers in their lessons?". Students' views on methods and techniques are given in the table 2 below.

Table 2
Methods-Techniques Used by Faculty Members in Classes

	Methods-Techniques	f	%	Sample Sentences
1	Presentation (Direct Lecture)	12	40	Lessons are taught through presentation in slide or PDF format. Apart from these, they generally do not pay attention to method and techniques, frankly, I have not seen anyone who uses them too much (P10)
2	Q&A	7	24	In the last 10 minutes of the lesson, they use the question and answer method, usually so that we can ask if there is a place where they have difficulty understanding (P3)
3	Brainstorming	3	10	They usually use brainstorm method. Other than that, I can't think of anything right now (P2)
4	Discovery learning	2	7	In this period, lessons can be taught in order to provide the student with the or ethical knowledge and make up for the student's deficiency in that subject. Again, as I said, some teachers use slides because they prefer it, but mostly through invention or through research our teachers were trying to teach us (P11)
5	Multi-Method	2	7	Mostly traditional. The teacher comes to the blackboard, has the notes in his hand, reads it, makes us write it most of the time. Two of them are younger, the younger ones use modern method and techniques. There are teachers who use all teaching method techniques. More modern ones use all teaching method techniques such as buzz, small group discussion, large group discussion. For example, some teachers use 3 and 4 methods in a lesson. For example, some use 6 hats, uses the station, uses the buzzing technique (P12)
6	Discussion	1	3	Question and answer, lecture, and discussion (P5)
7	Micro teaching	1	3	Be it in the micro-teaching method, we can at least criticize ourselves because there are constructive criticisms in such things because we and our other friends can criticize us, or when we video

				tape ourselves and watch ourselves in this process. I think these are the most ap propriate methods. By including ourselves, we can criticize ourselves and the people around us more easily by explaining the lessons and being more active (P9).
8	Project	1	3	A different method was used each week, for example project-based, problem-based. In general, our teachers taught us to think, to research and question more. They used to give a certain information, rather they used the constructive teaching method for the purpose of learning through stacking (P11)
9	Debate	1	3	We use debate a lot. I think the debate affects critical thinking. We use six hats, but we use the debate the most, it seems to me that the debate is more critical, as if it affects it more, mostly because we use it. We use all discussion groups, but debate is more common. I think it also contributes to critical thinking (P12)
Total		30	100	

Looking at Table 2, students' opinions; 1) presentation (lecture), 2) question-answer, 3) brainstorming, 4) invention, 5) using more than one method, 6) discussion, 7) micro-teaching, 8) project, and 9) discussion. The rate of students is 40% presentation, 24% question-answer, 10% brainstorming, 7% invention, 7% multiple methods, 3% discussion, 3% microteaching, 3% they stated that the project used 3% of the debate. In general, it is seen that the lessons are taught through straight lectures. Methods such as question-answer and brainstorming are used to involve students in the lesson, but the direct lecture method is predominantly used.

The second research question of the study is "What are the negative aspects of the attitudes of the faculty members and the exams they have administered?". The obtained results are presented in Table 3.

Table 3

Attitudes of Teachers and Negativities in the Exams They Apply

	Negativities	**f**	**%**	**Sample Sentences**
1	Exams are knowledge oriented.	11	37	I think our exams are the unluckiest and frankly weakest point of our education system. I don't think our education system is very successful, just like everyone else, and I think one of the biggest reasons for this is exams. Definitely a completely knowledge-based and rote-based exam system. No matter how much they avoid rote-based teaching in education, unfortunately, when it comes to exams, they are completely rote-based and unfortunately they stay at the top, that is, they cannot go into the depths of the subject, they remain very superficial. Therefore, I do not think that it can develop very critical thinking. Instead of critical thinking in exams, they think of passing the exam, memorizing, so I say zero percent because they think in this way with a definite interest (P7)
2	Exams are memorization oriented.	8	27	In other words, the system is memorization based, and the teachers say that they will ask what is written in the book. In other words, to give an example, we had a teacher who asked an open-ended question and we answered it. He asked why we did not write the same as in the book, but added our own interpretation, why we went out of the book, a few people were warned after the exams (P8)
3	Inability to develop critical thinking	7	24	I can say that applied exams and exams that we call interviews develop a kind of critical thinking. Apart from that, I do not think that written exams develop critical thinking at all (P7)
4	Failure to provide a critical	1	3	For example, I think for example in secondary school, so it's not very effective actually. I think so because every student can be a little shy or introvert. In fact, they can give very good examples of

	environment			criticism, but in such an environment it is not provided or it can be ignored casually, or not everyone is given an opportunity (P5)
5	Cheating in exams	1	3	I think it is not effective because we only take exams in distance education at our own university. I mean, everybody knows that everybody cheats or they look at the books, I don't know. I don't know if it is very effective (P3)
6	Some teachers do not accept criticism	1	3	You know, some teachers do good things under the name of critical thinking, but some teachers just come and teach their lessons superficially, as I said. They neither accept criticism nor allow questions to be asked in any way. There is variation in that aspect (P1)
7	Instructors can go off of the curriculum	1	3	I think not because, I don't mean all of them, as the majority of our teachers or lecturers. They can act according to their own consciousness. This, of course, can inevitably leave aside the phase of measuring-evaluating or developing the critical thinking we mentioned (P10)
Total		30	100	

Looking at Table 3; the answers given by the students; 1) exams are knowledge-oriented, 2) they are based on rote learning, 3) they do not develop critical thinking, 4) critical environment cannot be provided, 5) cheating in exams, 6) some teachers do not accept criticism, and 7) teachers can go out of the curriculum. 37% of the students think exams contain academic knowledge, 27% think they are based on memorization, 24% think they cannot develop critical thinking, 3% think they cannot provide a critical environment, 3% think students cheat in the exams, 3% think some teachers do not accept criticism and 3% think that some teachers could go out of the curriculum. When we look at the answers given by the students, the biggest negativity is that the exams are knowledge-oriented, based on memorization, and that they cannot develop critical thinking.

The third research question of the study is "How should the ideal teacher attitudes be in the development of critical thinking skills?". The obtained results are given in Table 4.

Table 4
Ideal Teacher Attitudes

	Ideal Teacher Attitudes	**f**	**%**	**Sample Sentences**
1	Respecting every opinion	5	22	I think every view and every idea should be respected. I think it would be better to accept that a question has not only one answer, but many answers from different aspects. I think that way. Instead of looking for a single answer, many answers should be sought from different doors and different ways (P4)
2	Listener	2	9	First of all, they should be respectful and not underestimate their students, because some professors give answers to students, but they rarely make them talk. No, this is not so, they say and keep silent. Therefore, first of all, respect, understanding, listening, I think listening. I think the most important thing is to listen. He/she must have the ability to listen, first he/she will understand, listen and respect the other party (P12)
3	Devoted	2	9	We should be more self-sacrificing, that is, we should have this awareness not only because we go to work, but because we go to school, I think we should go to school with that in mind (P6)
4	Eqalitarian	1	5	First of all, of course, everyone should be treated equally by the teacher (P2)
5	Fair	1	5	It should be fair because I do not think that the concept of fairness and the concept of equality are the same. Many teachers

				confuse it because it is confused that way nowadays (P3)
6	Sincere	1	5	First of all, I think they have to be sincere towards the student (P1)
7	Empathetic	1	5	The concept of empathy needs to be very developed. I don't want to talk about my own university, but I see from my friends that the concept of empathy is very lacking in distance education, but we have teachers who lack the concept of empathy (P3)
8	Uses language effectively	1	5	I also think that they need to use an effective fluent language (P1)
9	Realist	1	5	Ideal teacher attitudes; should be realistic, consistent and respectful and helpful (P5)
10	Consistent	1	5	
11	Helpful	1	5	
12	Involved	1	5	We should beter understand the students' requests and attract their attention, on the one hand, I think that not all of them are possible with just plain language. We have to discover their talents, I'm not saying for university, for example, for younger ages. We must discover their talents and encourage them. I think we should take care of our students, not just as a conclusion, but outside of the subject. After all, we are raising them, we do not just teach them something (P6)
13	Democratic	1	5	Being a democratic faculty member is ideal for me. A teacher who can use democracy in the classroom and convey it to his students, whether in the subject of the lesson or in the relations with friends, is one step ahead for me (P7)
14	Adaptable to the modernity	1	5	There should be a teacher who can keep up with the age of the students. Already tolerant, disciplined, authoritative, besides, as I said, the most important problem we see right now is that the faculty members should be left behind in the distance education and online education process that we are currently in, I think the most important feature should be keeping up with the new generation (P9)
15	Able to establish positive dialogue	1	5	It should include a little more students in more lessons. How? It should be based on more comments, be more interactive, and include more dialogue. Otherwise, anyone can open the PDF, everyone can read and continue it, but I don't think it will be of make a difference for this educational process. It should be in a more interactive dialogue, positive dialogue, teacher-student relations (P10)
Total		21	100	

Looking at Table 4, the answers given by the participants; 1) respectful to all opinions, 2) listener, 3) selfless, 4) egalitarian, 5) fair, 6) sincere, 7) realistic, 8) empathetic, 9) able to use effective language, 10) consistent, 11) helpful, 12) relevant, 13) democratic, 14) able to keep up with the times and 15) able to establish a positive dialogue. The participants expressed their ideal teacher attitudes; 22% respectful to all opinions, 9% listener, 9% devoted, 5% egalitarian, 5% fair, 5% sincere, 5% realistic, 5% empathetic, 5% able to use effective language, 5% consistent, 5% helpful, 5% relevant, 5% democratic, 5% able to keep up with the times and 5% able to establish a positive dialogue. Students mostly think that teachers should respect all opinions.

The fourth research question of the study is "How should exam practices be used to develop critical thinking skills?". The obtained results are given in Table 5.

Table 5

How Should Exam Applications Be?

	Suggestions	f	%	Sample Sentences
1	Exams should contain comments and thought-provoking questions	11	31	Since the critical thinking skill can be somewhat future-oriented, that is, the student should be able to make a future-oriented interpretation of what he saw in the past and what he sees today. We can give a problem with this kind of thing. A problem in the past, a problem in the present, what it could be in the future, that is, there should be questions that the child or student can absorb and comment on the information learned at work other than theoretical knowledge, except for measuring only theoretical knowledge. For example, on a problem that should be able to form a hypothesis. When you give a student a problem at work, they should be able to tell why it happened at work. These types of questions can push students to think more critically (P11)
2	Exams should have open-ended questions	10	28	Questions should be open-ended and based on interpretation. For example, one of our professors at our university would never give an exemplary situation based on knowledge, he would talk about which of the following concepts belonged to and which one he emphasized, you know, such an open-ended question, but based on interpretation. In order to improve people's interpretation skills, I think open-ended questions should be asked and the student should write what is on his mind at that moment. We cannot do this in multiple choice, it is writing, we cannot do anything based on interpretation. We choose from the information below, but we can write anything we want in open-ended questions, there is no limit. I think that critical thinking can be developed in this way, as there are some kind of open-ended questions or other types of questions that are open to interpretation (P10)
3	Questions should not be purely knowledge-based.	5	14	In exam applications, for example, if we are teaching any course, we should not think that what we are telling about and that the student has to know it. Everyone has their own opinion about what we are talking about, you know, we shouldn't ask for information in exams. We should ask something more open to interpretation like this (P6)
4	Interview, oral exams can be used	3	9	It can be like this, there can be applied exams, or you know, they can evaluate it by being influenced by our verbal style and our attitudes during the lesson because you know that something happens in the lessons, or a student actually learns in the lesson, but when he takes the exam he cannot put it on the exam paper. In fact, the student learned this, but because he could not put something he knew, it is considered as not knowing. So, considering all of them, I think there may be exams that every student can do. How can it be, like I said, it can be verbal. Maybe he can express better verbally than writing (P8)
5	Exam questions should be consistent with the topics in the lesson	1	3	The questions in the exams should be consistent with what the instructors tell. It should not go off topic. What the teacher teaches in the lesson should convey it in the question. He has to ask questions about how many units he holds us responsible for. Unfortunately, when it goes beyond that, consistency and validity decrease (P1)
6	Projects, research	1	3	I don't think one test is enough. It would be better if a project or something was given in special learning, I say especially in

	assignments can be given			terms of distance education. Research needs to be done. As a group of research, homework is given, when the groups formed can do research one by one and then organize and present what they find in a good way (P1)
7	Questions should be clear, concise and short	1	3	More than one question should not be asked in a question, that is, what we want to learn should be asked clearly and clearly. Questions should be short. The student may be asked to make the explanation long, but the question should be short, clear and understandable. He has to want only one thing. If he waits for more than one answer with a single question, neither the teacher gets what he wants nor the student gives what he wants (P2)
8	Activities can be done	1	3	It would be better if it was a little more like this activity style. Any activity can be done instead of such exam paper. Since we will teach with the textbook when we meet the students, it will be more permanent if we are taught in such an activity style at least in the universities or faculties we graduated from. I also think that we can transfer the permanent information to the students more easily, that is, if what is explained is done through a certain activity instead of the exam paper, the students will Express themselves more easily and they will not forget what they have done, they will forget what they have heard, but I think so. Other than that, I think it would be more permanent if such games, activities, materials were more tangible (P4)
9	Exams should contain more than one question type	1	3	I think the exam should be diverse, not just one type of question types. Examinations that contain different types of questions definitely affect critical thinking. That's why I think that both multiple-choice questions and questions that indicate mood at work, questions that express the current mood, that is, criteria such as I absolutely agree-disagree, can be more effective. In other words, I think that exams that include more than one question type affect critical thinking more than exams that contain only one question type (P7)
10	Exams should address 4 skills (reading, writing, listening, speaking)	1	3	I think it should appeal to 4 skills, so there is only reading, not even writing in the exam anymore in distance education. There is only reading. Usually multiple choice exam. It certainly doesn't contribute to critical thinking, in fact, it has a downside. It would be better if it was like this, for example, open-ended questions, but it would be much better if they were open to criticism and discussion. For example, there was reading and writing when the school was open, rather than one-way exams. Whether there is a listening part or a speaking part. If it measures many skills, for example, when it comes to mutual criticism, of course it will be on paper, but live one-on-one will be more effective. For example, if the exams were divided into 4 parts, if there were a reading part, a listening, writing and speaking part, the speaking part would improve critical thinking a lot, but unfortunately there is no speaking part in the exams (P12)
Total		35	100	

Looking at Table 5, and students answered as; 1) exams should contain comments and thought-provoking questions, 2) they should be open-ended, open-ended questions, 3) the questions should not be completely based on knowledge, 4) they can be interviews, oral exams, 5) exam questions should be consistent with the topics in the course, 6) project, research paper 7) questions should be

clear, concise and short, 8) activities can be done, 9) exams should contain more than one type of question and 10) exams should address four skills. The students think; 31% of them think exams should contain comments and thought-provoking questions, 28% should be open-ended, open-ended questions, 14% questions should not be completely based on knowledge, 9% could be interviews, oral exams, 3% exam questions should be consistent with the topics in the course, % they suggested that 3% of the project and research assignment can be given, 3% of the questions should be clear, clear and short, 3% of the activities can be done, 3% should contain more than one question type and 3% should address four skills. The students stated that the exams should not be completely knowledge-oriented and that the exams should be prepared in an open-ended style with comments and thought-provoking questions.

The last research question of the study is "How can critical thinking skills be developed?". The obtained results are given in Table 6.

Table 6

How Can Critical Thinking Skills Be Developed?

	How to Develop	f	%	Sample Sentence
1	By reading books	3	14	Actually, this is something about personality, if the child or teacher is going to improve himself, he needs to do something for himself. For example, he can read a book. The more books he reads, the better he can criticize an event (P2)
2	By asking questions to students	2	9	Questions can be asked to students, curious questions should be asked, questions that can arouse curiosity and shine in their minds like this. Such a student can give different answers if he hears a question he has never heard before. In each different answer, a different way reveals a different point of view (P4)
3	By making philosophical speeches	2	9	For example, we can have philosophical conversations with children or ask them to think about any subject (P6)
4	Via communication	2	9	I think that if an educational environment that is more student-teacher relationship-oriented rather than teacher-oriented is created, and if the slide is out of the way, at least, we can prepare a better environment if we do preliminary research and use the resources suggested by the teachers for us at work, and if we are in constant communication and interaction (K8)
5	By explaining that criticism is a good thing	2	9	By teaching people, that is, young students, starting from both pre-school and classroom teaching, children should be taught that criticism is not actually a bad thing, that it is a common misconception in our society, and that criticism is good, it provides development, and we should be able to do it easily freely (P7)
6	By presenting a problem	2	9	Our teachers should present a problem to students attitudinally so that the student can think critically. It should not be for the sole purpose of providing information. They just give the information, then the child only takes the information, as we write it on the computer, just like memorization, and he will not have to think about it. The teacher should confront the student with a problem. Of course, they should give them a little more time to reach information for themselves, which is a very difficult task in this pandemic process due to the opportunities we have. In other words, I think that they should face with a problem regularly (P11)
7	By creating a	2	9	A conversation can be made with students from the front.

	comfortable environment			Information about this can be given. After creating a comfortable environment and giving examples from our own life, students can say whatever they want in a critical environment (P5)
8	By having a discussion	1	4	I think the most basic thing is that the teacher can do this with discussion. He gives a certain subject to the children and they can have a debate there (P2)
9	By reading biography	1	4	It can be improved by reading other people's biographies. By looking a little more at the lives of the people living around us, by examining them that way, without judging them or looking at them that way. As I said at the beginning, reading is very important. I would suggest that they should read a lot of biographies for critical thinking (P3)
10	By establishing a dialogue	1	4	Then I don't think we have enough dialogue with the people around us, especially in this process. I would care for them to have more dialogue (P3)
11	By questioning	1	4	I think it can be improved by asking questions and researching. You should not accept the information directly but, should be questioned whether there is an answer elsewhere or if there is any other information. I think it should not be accepted right away and said okay this is it. I think that even more students should question the information they receive first (P1)
12	By brainstorming	1	4	Brainstorming can also be possible, I mean, we can start with brainstorming and then deepen the subject on any subject. Thus, I think that critical thinking can develop (P6)
13	By using the question-answer technique	1	4	As I said, I think that if they are a democratic lecturer, they can develop critical thinking with question-answer technique and applied teaching methods (P7)
14	By bringing different perspectives	1	4	In order to develop it, I think we need to be able to convey different perspectives to the student, to the person in front of us in a good way, and I think we need to inform the other person that criticism can be constructive and not violent. As I said, if we can show the individual from different points of view, if we can show the windows, which can easily present what a critical thought is like by giving the missing points of the person himself (P9)
15	By giving the student a voice	1	4	It would be better if they gave more chance for speech to the students than themselves in lots of lessons, this would develop, critical thinking. They always talk and teach the lesson and leave. Whether the other party accepts or not. It would be better if they gave the other party the right to speak (P12)
Total		23	100	

Looking at Table 6, in the form of students gave answers such as; 1) reading a book, 2) asking questions to students, 3) making philosophical conversations, 4) communicating, 5) explaining that criticism is a good thing, 6) presenting a problem, 7) creating a comfortable environment, 8) having a discussion, 9) biography reading, 10) establishing a dialogue, 11) questioning, 12) brainstorming, 13) using the question-answer technique, 14) gaining different perspectives and 15) giving the student the right to speak. What the students suggest is as follows ; 14% suggest reading books, 9% asking questions to students, 9% making philosophical speeches, 9% communicating, 9% telling that criticism is a good thing, 9% presenting problems, 9% creating a comfortable environment, 4% by having a discussion at a rate of 4%, by reading a biography at a rate of 4%, by establishing a dialogue at a rate of 4%, by questioning at a rate of 4%, by brainstorming at a rate of 4%, by using the question-answer technique at a rate of 4%, by gaining different perspectives at a rate of 4% and

by giving a speech to the students at the rate of 4%. Students think that critical thinking skills can be achieved in comfortable environments by reading a lot, asking questions, making philosophical conversations, creating the awareness that criticism is not a negative thing, and effective communication.

Discussion, Conclusion, and Recommendations

In this section, the findings obtained are discussed by comparing them with previous studies in the related literature; followed by some conclusions and recommendations.

The students learn the methods and techniques used by the lecturers in their lessons; presentation (lecture), question-answer, brainstorming, invention, using more than one method, discussion, micro-teaching, project and debate. The most striking finding here is that the lecturers mostly use the presentation method (40%). In order for teacher candidates to gain critical thinking skills, activities and methods-techniques should be included in undergraduate courses (Can & Kaymakçı, 2015). In the inadequacy of critical thinking, it is effective that curricula are limited in terms of time, there are few supportive studies to motivate students, educational activities and supportive studies are not at the desired level (Tok & Sevinç, 2010).

According to the findings related to the second research question of the study, the negative aspects of the exams taken by the students are that exams are knowledge-oriented, based on memorization, do not develop critical thinking, critical environment cannot be provided, cheating in exams, some teachers do not accept criticism and teachers can go out of the curriculum. When we look at the answers given by the students, the biggest negativity is that the exams are knowledge-oriented, based on memorization, and that they cannot develop critical thinking. Teachers' questions are of great importance in the development of students' critical skills. Critical thinking skills cannot be developed with questions with a single and clear answer. For this reason, students should be asked open-ended questions that they can think freely (Çakan Akkaş & Kabataş Memiş, 2021).

According to the findings for the third research question of the study, students' ideal teacher attitudes; respectful to all opinions, listening, self-sacrificing, egalitarian, fair, sincere, realistic, empathetic, able to use effective language, consistent, helpful, relevant, democratic, keeping up with the times and establishing positive dialogue. Students mostly think that teachers should respect all opinions. Even if the teachers who are not well-educated and do not respect the students have the best resources and books, what they can obtain is limited (Gürkaynak, Üstel & Gülgöz, 2003). In order to gain critical thinking skills, first of all, academicians should be role models for teacher candidates. Academicians should create a classroom environment that is respectful to different ideas and tolerant of discussions and contradictions (Can & Kaymakçı, 2015).

Considering the findings for the fourth research question of the study, students related to exam applications; exams should contain comments and thought-provoking questions, they should be open-ended, open to discussion questions, the questions should not be completely based on knowledge, there may be interviews, oral exams, exam questions should be consistent with the topics in the course, projects, research assignments can be given, questions should be clear, clear, short, activities can be done they suggested that they should contain more than one type of question and address four skills. Open-ended questions that support students' critical thinking, which enable communication between teacher and student, enable exams not only to be a grading system, but also to develop learning, idea development and critical thinking skills (Gürkaynak, Üstel & Gülgöz, 2003). In order for teacher candidates to develop their critical thinking skills, activities for critical thinking skills should be included in their lessons. In this context, teacher candidates should be offered the opportunity to practice critical speaking, critical listening/watching, critical reading and critical writing methods and techniques (Şen, 2009). Developing critical thinking skills with writing activities is very important for language education. While writing, the person confronts his own feelings, comes face to face with his thoughts and goes in search of new ideas. The writing process enables one to reach new ideas by using their own thoughts. In the writing process, self-confidence, determination, sensitivity to the subject, intellectual attitude, reasoning, reasoning and critical thinking skills are developed (Karadüz, 2010). For this reason, open-ended, thought-provoking and interpretive questions should be asked to students in exams in a way that can improve their critical thinking skills.

According to the findings for the last research question of the study, students' critical thinking skills; by reading books, asking questions to students, making philosophical speeches, communicating, explaining that criticism is a good thing, presenting problems, creating a comfortable environment, having discussions, reading biographies, establishing dialogue, questioning, brainstorming, using question-answer technique, they stated that it can be improved by gaining different perspectives and giving students the right to speak. The first point to be considered in acquiring critical thinking skills is to create learning environments where students will feel safe. Asking questions and questioning should be given importance, open-ended questions should be asked to students and it should be ensured that they ask qualified questions (Seferoğlu & Akbıyık, 2006). Students mostly stated that reading books will improve their critical thinking skills. When we look at the studies in the literature, it is seen that there is a significant relationship between critical thinking skills and reading habits, and the level of critical thinking increases as the book reading habit increases (Görücü, 2014; Kıran, 2019; Mete, 2021; Özmutlu, Gürler, Kaymak & Demir, 2014; Usta, 2019; Yıldırım Döner, 2020).

When the findings of the study are examined, it is seen that the lecturers teach their lessons through presentation, and the students cannot express themselves much in the lessons. Exams are mostly multiple choice or questions that require clear information. To develop critical thinking skills, first of all, faculty members should be taught the importance of critical thinking skills. Faculty members should be encouraged to use more teaching methods and techniques in their classes. A free environment should be provided where discussion, exchange of ideas can take place within the framework of respect, and individuals can express their thoughts without hesitation. Students should be instilled in the awareness that criticism is not a negative thing, it is aimed at improving the person. Individuals who read a lot, question, express themselves well, have the courage and self-confidence to Express their thoughts without hesitation should be raised.

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