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Investigation Active Learning in Higher Education from the Perspectives of Faculty Members

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Abstract

The changing paradigm from teaching to learning in higher education brings out university-wide reforms like active learning. Faculty members are one of essential stakeholders in designing and conducting active learning efficiently. As a result, their perspectives based on their experiences are critical in directing faculty members individually and universities willing to implement active learning, and future research on the subject. The study aims to determine the faculty members' views about active learning based on their own experiences. In the qualitative study conducting as a holistic single case study, the data were collected through online interviews and analysed by content analysis. Some of the findings show that the faculty members had mainly positive feelings about active learning. They believed active learning supported their students' enhancement of the 21st century skills and other qualifications like self-confidence, social skills. Moreover, they explained some problems related to students, faculty members, and learning environment. In relation to these, they also presented some suggestions about active learning. Finally, some suggestions based on the study findings were presented for the faculty members, universities, and future research.

Keywords: Active learning, educational quality, faculty members' views, teaching-learning in higher education

Introduction

In a constantly changing world, universities are obliged to enhance and guarantee the quality of the learning opportunities they present for their students. As Barr and Tagg (1995, p.15) indicated, one of the main missions of universities is to "produce learning" rather than "to provide instruction, to teach". Students should have the opportunity to develop knowledge because learning is an active process, not a passive experience of receiving new information (Johnson & McCoy, 2011, p. 41). The so-called paradigm shift from teaching to learning in higher education has been widely supported in the literature because it parallels with the common assumption that learning is something a person does when studying, and it is an active, self-directed activity (Dewey, 1924, p. 390). Contrary to the technological and pedagogic changes initating such a paradigm shift throughout the 20th century (Barak et al., 2007), the dominant teaching form has remained mostly constant, and "chalk and talk" methodologies have still dominated (Asarta et al., 2021) even in the 21st century. Being aware of such difficulties in changing methodologies, some universities and other national/international organizations have started various projects to promote such a shift toward learning. Active learning has drawn considerable attention in the process because it presents a range of student-centered learning activities that enable students to take control of their learning.

As active learning is emphasized as a crucial area of attention for high educational quality, the related literature and practices in higher education have extended in the same way. An examination of the literature reveals various definitions of active learning-specified in higher education level (Aragaon et al., 2018; Auerbach & Schussler, 2017; Eddy et al., 2015). For instance, Aragaon et al. (2018) explain it as "a range of student-centered *curricular events* that engage students through, for example, peer collaboration, experimentation, and problem solving". Eddy et al. (2015) define it as "a *complex process* including teaching methods and student learning." Auerbach and Schussler (2017) summarize it as "a student-centered *pedagogical approach* that engages student thinking through classroom activities that require students to reflect upon and

frequently discuss their ideas and applications". Being aware of the variations in active learning definitions, Freeman et al. (2014) presented the following definition as a shared one by more than 300 instructors: Active learning involves students in the process of learning through activities and/or discussion in classrooms, in contrast to passively listening to an expert. It emphasizes higher-order thinking and often involves group work. The mentioned definitions show the focus is mainly on the benefits of active learning.

Active learning brings out various benefits to university students. It significantly enhances student learning, engagement, motivation, attitude, self-efficiancy and such so-called 21st century skills development as analytical thinking, problem-solving, critical thinking skills (Freeman et al., 2014; Machemer & Crawford, 2007; Niemi, 2002; Niemi & Nevgi, 2014; Patrick et al., 2016; Prince, 2004; Rotgans & Schmidt, 2011; Ruiz-Primo et al., 2011; Stump et al. , 2014; Theobald et al., 2020). Additionally, the majority of the research points to the effectiveness of active learning across various fields and populations (Ambrose et al., 2010; Bonwell & Eison, 1991; Chickering & Gamson, 1987; Freeman et al., 2014; Lima et al., 2017; Lund & Stains, 2015; Theobald et al., 2020). Due to all the benefits, active learning has already received strong support in higher education area (Prince, 2004, p. 223). Moreover, as emphasized by Aragaon et al. (2018), some agencies like the American Association for the Advancement of Science, President's Council of Advisors on Science and Technology view active learning as a vital area of attention for university courses, and many pivotal American and European universities have emphasized active learning as a critical area of focus.

Although the growing interest and the overwhelming evidence in its favour, active learning may not be a concept that receives passionate support by the faculty members. The low adoption rates of active learning in university courses continue to be a concern, and many studies conducted in various contexts indicate traditional teaching techniques like lecturing are still the main mode of instruction in these courses (Hora & Ferrare, 2013). The undermining reason for the low adaptation rate may be the faculty members who are suspicious and view active learning as just another trend in the field of education (Prince, 2004, p. 223).

In their study, Froyd et al. (2013) revealed that some faculty members applying active learning were unsure whether the time and effort needed to implement active learning is beneficial, and up to 75% of those who have tried certain types of active learning completely give up on the concept. Some other studies conclude the significant problems to faculty members' implementation of active learning are as follows; a rigorous curriculum, inadequate preparation or course hours, the size of the student groups, poor learning environments, and a high level of comfort with traditional lectures (Finelli et al., 2014; Froyd et al., 2013; Henderson & Dancy, 2007; Michael, 2007; Miller & Metz, 2014; Niemi, 2002).

In order to change their attitudes and participate them voluntarily in active learning, Bradforth et al. (2015) suggest training more faculty members to conduct active learning. Such pieces of training might be effective to dismiss the problems related to the lack of experience and knowledge of faculty members because it is known that many faculty members, accepted as one of the most important elements of the quality of education mission of universities, lack the necessary pedagogical knowledge and skills (Unal & Dagistan, 2017).

Furthermore, there should be some precautions to solve university-level problems because there are also physical, digital, or motivational barriers undermining active learning despite its clear benefits (Proud, 2022). Otherwise, Mazur (1997) stressed that many faculty members automatically turn to the ways they have recently been taught, which could result in teaching practices that are not advantageous to all students spreading over generations of students. To conclude, it is an accepted fact that faculty members have the leading responsibility and power in making an educational innovation like active learning at least in their courses.

Active learning has been at the center of many comprehensive studies in international literature, especially since the last quarter of the 20th century. These studies mainly focus on the effects of active learning on students' learning (Prince, 2004; Roediger & Pyc, 2012; Sibona & Pourreza, 2018) and their skill enhancement (Buitrago-Flórez et al., 2021; Chen, 2014; Murillo-Zamorano et al., 2019; Sgambi et al., 2019), students' views on the benefits of active learning (Crisol-Moya et al., 2020; Crossgrove & Curran, 2008; Machemer & Crawford, 2007), and students' preference for active learning (Walker et al., 2008; Welsh, 2012). In some studies, the faculty members' views about active learning were determined, too (Auerbach & Schussler, 2017; Avidov-Ungar et al., 2018; Michael, 2007; Patrick et al., 2016). For example; Auerbach and Schussler (2017) examined the the shift in the definitions of active learning made by the faculty members participated in yearly interviews to track any change in their perceptions of active learning. However, the study is limited to only active learning practice in a Biology course. Another study conducted by Avidov-Ungar et al. (2018) has a similar limitation due to focusing on only teacher education, and in addition to this, it has a further limitation that Avidov-Ungar et al. (2018) focused on the teacher educators' effective usage of the active learning classroom as a learning place. One more study on the effectiveness of active learning and the barriers to its implementation in university STEM classrooms by Patrick et al. (2016) had importance because it focused on the views of both the faculty members and students. However, it has similar limitations to Auerbach and Schussler (2017) and Avidov-Ungar et al. (2018). Lastly, Michael (2007) conducted a study on the faculty members' perceived barriers to active learning. The faculty members, however, only recently attended a faculty development session when they discussed these barriers. To put it another way, they discussed them before to actually using them in their classes, which can be perceived as the limitation of the study.

On the other hand, the studies conducted in the setting of higher education in the national literature are scarce and often concentrate on the effects of one or more active learning methods/techniques utilized in a particular course on student academic achievement and/or attitudes (Kalem & Fer, 2003; Ozer, 2020). As both of the studies emphasize, the research on active learning in Turkish higher education has been limited and additional in-depth studies are required. Furthermore, Tonbul (2003) conducted a study on the required organizational structure to apply active learning in faculties. In this study, he emphasized the changing process to active learning requires a proper organizational and management structure. Overall, the analysis of the literature indicates that further in-depth research, considering active learning in various departments, may still be required. Further studies based on actual field practices and the views of practitioners might be necessary. Determining the experience-based views of faculty members implementing active learning contribute to the literature. It also carries importance because it provides data based on the applications to all faculty members who implement/will implement

active learning in their courses. Such data could also guide the development of syllabuses of active learning courses. Finally, the data obtained based on practice could be useful for the planning and implementation processes of both active learning and other teaching-learning reforms.

The study aims to determine the faculty members' views about active learning based on their own experiences. To this end, their feelings, expectations, views on the outcomes and related problems, and suggestions about active learning in higher education were determined.

Method

Study Design

This qualitative study has a holistic single case design since it focuses on faculty members' views based on their own active learning experiences. An exploration of a "bounded system" that includes a plan, an occasion, a task, or a person is called a case study (Creswell, 1998, p. 61). The bounded system (holistic single case) in this study is "active learning practice in a university" to be explored in detail. The case is also explored in its natural setting and from the viewpoint of the contributors to the practice, the faculty members in this study (Gall et al., 1996, p. 545).

Study Context

This study was conducted at a state university in Ankara, Turkey. The university provides education to approximately 25 thousand students within nine faculties, three colleges, three vocational schools, one graduate school, and one conservatory in the field of social sciences and arts. Regarded itself as the university that sees "the student as the focal point of all processes and activities", it has determined a strategic goal to improve educational quality it presents. In this context, a university-level project on active learning has been initiated to provide meaningful learning and to enhance students with 21st century skills. Since the spring semester of 2021-2022, active learning has been carried out in at least one course in each department at the university and this number is to be increased each semester.

Within the scope of the active learning project, the departments determined active learning courses (so-called by the university) and the responsible faculty members. Then, they got a series of online and face-to-face trainings on active learning before the spring semester of 2021–2022. After that, they created the active learning based syllabuses, which were then reviewed by the project coordinator, a specialist in the field of curriculum and instruction. Upon that review process, the faculty members revised their syllabuses and put them into practice. Online pieces of training for the faculty members were provided after the semester began, and the coordinator attempted to provide the required assistance when needed. The active learning practices were assessed through various methods/tools. The Stance of the Researcher: The researcher has been working as the coordinator of the active learning project in that university. She has a PhD in curriculum and instruction and studies on the educational quality in higher education, the 21st century skills, faculty development, core curriculum, and active learning etc.

Study Group

The study group included 37 faculty members who carried out active learning courses in several academic units at a Turkish state university. One of the purposeful sampling methods, maximum variation, was applied to determine the study group. The aim of choosing this sampling

method was to reach as many different faculty members from different academic units as possible to find cases that vary from each other as much as possible (M. Patton, 2014). Therefore, it was tried to include at least one faculty member from each academic unit. For that reason, an invitation form was sent to all the faculty members taking part in the project and the volunteers included in the study. The spread of the volunteer faculty members' academic units met the criteria of maximum variation sampling method. The study group included 25 female and 12 male faculty members. Their ages ranged from 30 to 50+. The distributions of the study in terms of academic units and titles are shown in Table 1.

Table 1. *The distribution of the study group in terms of their academic units and titles*

	Academic Units (N)	Titles (N)	
Faculties	Economics and Administrative Sciences (4)	Prof. Dr. (2) Assist.. Prof. Dr. (1)	Res. Assist. Dr. (1)
	Letters (4)	Assoc. Prof. Dr. (1) Assist. Prof. Dr. (1)	Res. Assist. Dr. (2)
	Art and Design (4)	Prof. Dr. (1) Assoc. Prof. Dr. (1)	Assist. Prof. Dr. (1) Res. Assist. Dr. (1)
	Tourism (3)	Assoc. Prof. Dr. (3)	
	Arts and Sciences (3)	Prof. Dr. (1)	Assist. Prof. Dr. (2)
	Fine Arts (4)	Prof. Dr. (1) Res. Assist. Dr. (1)	Ins. (2)
	Communication (2)	Assist. Prof. Dr. (1)	Ins. Dr. (1)
	Islamic Sciences (1)	Assist. Prof. Dr. (1)	
Conservatory	Turkish Music State (2)	Ins. (2)	
Colleges	Banking and Insurance (3)	Prof. Dr. (1)	Ins. Dr. (2)
	Land Registry&Cadastre (1)	Ins. Dr. (1)	
Vocational Schools	Social Sciences (5)	Ins. (5)	
	Justice (1)	Ins. Dr. (1)	

Data Collection Method, Tool, and Process

Online interviews were conducted in this study to gather huge amounts of data quickly, cheaply, and effectively (Regmi et al., 2016). A semi-structured interview form called as the Active Learning Interview Form (ALIF) developed by the researcher was used in the data collection process. While preparing the form, the related literature was analyzed and a draft version of the question list was prepared. The irrelevant items were then removed from the list after it was checked to see if it was parallel to the aim of the study. The list was then sent to two experts who have conducted research on teaching-learning strategies and educational quality in higher education and are experienced in conducting qualitative studies. One of them works as a professor and the other as an assistant doctor in the curriculum and instruction departments of two separate universities. After they had a chance to review the form, an online meeting was held to get feedback. In this meeting, a closed-ended question was added to the form in order to track the students' development of the 21st century skills. Moreover, some grammatical and word adjustments were done to make the questions more comprehensible and clear to respond. This process also ensured the content and face validity of the interview form.

Active Learning Interview Form (ALIF) includes two sections: the demographic information section, which collects information such as age, academic unit, gender, and title. The second section includes six open-ended questions about the active learning experiences of the faculty members such as "Before you started using active learning methods in your courses, what

were your feelings and thoughts on this subject? , How did you feel after you started using them? Can you talk about the positive and negative things you experienced during the process of using active learning methods?" The form also included a close-ended question to determine the level of the 21st century skills enhancement by the students. They were asked to give 1-5 points on the listed skills such as creative thinking, problem-solving, communication…etc. The questions were prepared by considering the start and end of the investigated active learning, allowing for comparison and contrast of the data as necessary. In order to compare and contrast the data as needed, some questions were prepared to focus on the beginning and some on the end of the examined active learning.

After the interview form was ready, the online interviews were held with the volunteer faculty members. Before the interviews, they were informed about the study in detail (aim, scope, method…etc). Some of the interviews were conducted through five different focus group interviews (n=20). The interviews were made after the 2021-2022 Spring term was over and continued 15 days. Each individual interview of the participants lasted 15-20 minutes and the focus group ones lasted 30-40 minutes.

Data Analysis

In the data analysis, inductive content analysis method was applied (M. Patton, 2014). In this method, meaning units are formed based on participant statements, and subsequently codes/themes are determined (Zhang & Wildemuth, 2009). In this study, the recorded interviews were first directly transcribed. The data from each participant were stored using labels like Ins.-M-17 so that the reader can understand the title (Such abbreviations as Prof. Dr., Assoc. Prof. Dr., Assist. Prof. Dr., Ins. Dr., Ins., Res. Assist. Dr. were used in suitable with the university academic positions titles in Turkish higher education), gender (M for male; F for female participants) and the number of the participants. The labels were also used in the finding section to ensure confidentiality. After recording all the data**,** they were examined in detail, and the researcher created the codes and themes. Finally, the themes obtained are discussed in light of relevant research in the literature.

To support credibility and transformability, the following precautions were taken (Yildirim & Simsek, 2016): Data collection and analysis processes were explained and direct quotations were presented to support the findings. Moreover, to ensure member check, the recordings were sent back to three participants who were chosen randomly. To ensure confirmability, the researcher and one of the experts who involved in the interview form editing process worked together. Firstly, the researcher conducted all the analysis, and then the expert who is experienced in qualitative data analysis, checked the codes/themes created by the researcher. After that, an online meeting with a focus on supporting inter-coder reliability was conducted. In the meeting, some different points of view on the codes/themes were determined, and a consensus was reached following the analysis and discussion. Lasty, all data were stored to maintain confirmability.

Ethical Permits of Research

In this study, all the rules specified to be followed within the scope of "Higher Education Institutions Scientific Research and Publication Ethics Directive" were complied with. None of the

actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethics", which is the second part of the directive, have been taken.

Ethics Committee Permission Information:

Name of the committee made the ethical evaluation= Ankara Hacı Bayram Veli University Ethical Commission

Date of ethical decision = 28.07.2022

Issue number of the ethical review document= E-11054618-302.08.01-114290

Findings

The findings were presented under the following headings, namely "feelings about active learning," "expectations about active learning", "views on the outcomes of active learning", "problems about active learning", and "suggestions about active learning".

Feelings about Active Learning

The faculty members' feelings about active learning at the beginning and the end of the term were explored. At the beginning of the term, they explained mostly negative and some positive feelings about active learning, but at the end of the term, they all explained positive feelings, which shows the active learning process managed to dismiss all negative ones. At the beginning of the term, the faculty members most frequently explained three main negative feelings; anxiety, prejudice, and fear. They were mostly *anxious* because it was something unknown for them, they did not have enough time to make necessary preparation, they thought they would not get adequate assistance, the classrooms were too crowded, and lastly, there were no necessary equipment, digital devices so on. They were also *prejudiced* because they thought it would be inefficient. Lastly, they were *fearful* because they had no prior knowledge and experience, and they might not achieve to apply such methods. When it comes to the positive feelings, at the beginning of the term, the faculty members frequently explained they were *excited, happy, willing* to apply, and *curious* about it, while some indicated they were *calm* because they have already applied such methods. When the faculty members were asked how they felt when the term was over, it was determined that they all had positive feelings. They indicated they were *happy, satisfied,* and *enjoyed.* The following is a sample of comments by the faculty members with a positive shift in their feelings:

"The fact that the children were not bored during the course and that some of them put forth a lot of effort and learned more as a result was what I appreciated best about the active learning. I gave up my prejudiced attitude because I was satisfied." **Assos. Prof. Dr-F-16**

"I had concerns about the impact of active learning. I realized that students learned while having fun, I was happy." **Ins.-M-17**

The cited comments show when they observed their students' positive attitudes, increasing engagement and success, their feelings changed positively. Moreover, some others explained that their feelings turned into more positive when their students obtained new skills such as searching and sharing information etc. One of the faculty members explained that process in detail:

"*My thoughts definitely changed in a positive way. My students were able to both do research before the lesson and discuss in interaction with each other in the lesson. Their success made me very happy. My students, who took my course and never knew each other before, started to know each other by their names, they did research together, they discussed and talked about their research and the information they learned in the lesson*." **Prof. Dr.-F-10**

Expectations about Active Learning

When the faculty members' views on active learning at the beginning of the process were examined, it revealed they had many expectations. These expectations were as follows; to increase academic success, to enable permanent learning, to increase engagement, to take students' interest in the courses, and to ease their learning process. Some views indicating their expectations are as follows:

"I saw it as a teaching method that would facilitate learning and increase its effectiveness. I think that the effect on permanence is positive and advanced because students have the chance to take an active role in their own learning, rather than hearing the information consisting of stereotyped sentences as in classical methods." **Ins. Dr-F-9**

"I was using a method in which the faculty member was more active. I think that with this method in which students are active, their learning will be more permanent." **Res. Assist.-F-5**

To reveal out whether the expectations were met in the process, the faculty members were asked about the outcomes of the active learning, which is explained below.

Views on the Outcomes of Active Learning

The examined active learning project mainly aimed to enhance students' 21st century skills and other qualifications. Therefore, the faculty members included them in the learning outcomes of their courses, and at the end of the courses, they explained their views on the outcomes of active learning as follows.

Enhancement of the 21st Century Skills

The students' enhancement levels of the 21st century skills based on the faculty members' views were shown in Table 2.

Table 2. *The students' enhancement levels of the 21st century skills based on the faculty members' views*

21st century skills	The levels of enhancement (N)				
	Very High (5)	High (4)	Average (3)	Low (2)	Very Low (1)
Problem Solving	10	17	7	1	1
Creative Thinking	17	14	4	0	1
Critical Thinking	19	14	3	0	0
Collaboration	18	13	5	0	0
Communication	17	13	4	1	0
Information Literacy	11	13	7	2	0
Technology Literacy	11	12	12	1	0
Entrepreneurship	12	12	10	1	0

As Table 2 shows, nearly all of the faculty members emphasized their courses contributed to the enhancement of the 21st century skills by their students at the top levels. In fact, because of the aims of the examined active learning project, these results are in line with the expectations, but their high levels are satisfying, too. However, the number of the faculty members who explained their students got problem solving and creative thinking skills at low and very low levels takes attention. Even if the number is not high, it should not be underestimated.

Enhancement of Other Qualifications

The faculty members indicated some other important qualifications, which were enhanced by the students. They very frequently emphasized the students were more capable of *explaining themselves* and *more self-confident* and thus got the ability to speak in public and make efficient presentations. Others frequently stated qualifications were about *information processing skill*. They could seek information, share it in the classes, relate it to their prior knowledge, and apply it in real life situations. Although the application step was less frequently emphasized, the completed previous steps were important to pass into the application step. On the one hand, the faculty members very frequently emphasized and explained their satisfaction with the *social skills* their students developed in the courses. Furthermore, they frequently explained the students in the classes made friendship, felt belonging to their classes, and got happy. The following is a sample of comments on the outcomes of active learning.

"I think that it has created very important gains in presentation techniques and ability to speak in front of a crowd. I think that it also develops the ability to search for information." **Ins. Dr-M-15**

"They didn't even know their classmates. They communicated with each other. I noticed that they are happy." **Ins. Dr.-M-11**

"They began to express themselves in every field and to reveal their differences. Are they more knowledgeable? I do not know. Have their emotional intelligence increased more? Definitely yes." **Assist. Prof. Dr.-M-20**

"They had many opportunities to express themselves. Students who were shy in our activities expressed themselves better over time. Group work further strengthened the relations." **Ins.-F-25**

Problems about Active Learning

The faculty members explained the problems about active learning they experienced in terms of students, faculty members, and learning environment. The most frequently stated problems by the faculty members' were related to *the students*. They frequently explained the students did not complete pre-task assignments, they had hesitation and difficulty in explaining themselves, they did not actively engage, and they were not eager to do that during the courses. Fortunately, the faculty members frequently added that such problems were solved out during the term. For example, a faculty member conducting active learning in an online course explained that "*Using digital programs like Slido, Google Documents, I managed to engage my students into the process*" (Res. Assist. Dr.–F-37). On the other hand, the faculty members rarely explained the engagement problems were going on during the term and they added such students preferred to be silent during the term. The followings are important samples of comments on the problems and how they were solved during the term.

"Students were not willing to use different sources and blend them with their own ideas. While expressing their own ideas, they often felt uneasy. When I try to make them think in more detail by asking questions, they thought they gave wrong answers in the first applications. In the first weeks, they had a reactive attitude to talk and argue with their friends. Discussions that were much more productive took place in the last weeks. Their desire to participate increased gradually. The number of students who came prepared for the course increased gradually." **Ins. Dr.-F-4**

"*There were some difficulties as it was a new method. It was a little bit difficult for students to break their passive role in the rote-based education process from primary school to the present. However, after the transition period, students also developed a serious awareness and self-confidence*." **Res. Assist. Dr.-M-8**

On the other hand, a few faculty members emphasized some problems continued throughout the term as seen in the following comments:

"*On the negative side, after a point, I started to be unable to encourage students to read the educational material of the week's topic. They came to classroom without completing preparation."* **Assist. Prof. Dr.-M-20**

"I can say that some students' resistance at the point of participation and not embracing change are negative points." **Res. Assist. Dr.-F-24**

"*The classroom was over 80 people and not everyone showed the same interest. The students, whom we have already taught to be quiet, did not give much response our expectations about their talk and discuss now. In short, I believe that active learning will be productive under appropriate conditions, but it is difficult for our culture***." Prof. Dr. -M-6**

Another set of problems to the faculty members was about *the faculty members* themselves. They frequently explained they had difficulty in finding appropriate active learning methods with their course content and in preparing syllabuses. Nevertheless, they added they overcame such difficulties during the term. On the other hand, they very frequently explained applying active learning methods requires much more time and effort. Unfortunately, they emphasized these problems continued all the term. The following is a sample of comments on the problems.

"*As a lecturer, my workload has increased a lot. Although my lesson time was 3 hours, my lessons lasted at least 4.5 hours without a single break***." Prof. Dr. -M- 6**

"I had a little trouble planning week by week. But every week a new idea came and got more creative." **Assoc. Prof. Dr.-F-12**

The last set of problems were about the *learning environment*. The faculty members frequently explained the physical features of classrooms were not suitable for active learning. The crowded classrooms were another problem in the process. They also added that online and hybrid courses caused some problems to apply active learning efficiently. Some faculty members had also explained that the active learning courses sometimes overextended the usual course hours and they had to exclude some content, which made them unpleasant. Some comments are as follows:

"Students can understand the subject better when they research it on their own, but students who do not study in a crowded classroom may find it difficult to understand the subject." **Assist. Prof. Dr.-F-31**

"The only negative side is that the physical structure of the classroom is not fully suitable for active learning." **Ins. Dr.-M-11**

Suggestions about Active Learning

The faculty members made some suggestions for more effective active learning focusing mainly on *learning environment* and *faculty member support ways*. To the faculty members, classrooms should be rearranged for active learning. Additionally, they should be enriched in terms of digital tools and other materials. They also emphasized that ones carrying out active learning courses need much more support in the process. They suggest some solutions like giving more formal trainings on active learning, visiting international universities applying active learning efficiently, and arranging encouraging/rewarding systems for faculty members. Beside all these, they emphasized active learning should be expanded by adding new courses, but the courses should be given by volunteer faculty members. The final yet important suggestion was to organize orientation programs to inform students about active learning. Some comments are as follows:

"Active learning should be promoted. Funding should be allocated for classroom arrangements and materials that may be required. The simplest is portable boards, colored pencils, etc. can be given." **Ins. Dr.-F-4**

"I think that there should be encouraging and rewarding practices for the sustainability of active learning practice." **Res. Assist. Dr.-F-24**

Discussion and Conclusion

Faculty members who conduct active learning in higher education can be thought of as important determinants of its efficiency. Therefore, the faculty members' views on active learning in higher education were examined in this study. The qualitative analyses revealed important findings about their feelings, expectations, views on the outcomes and related problems, and lastly, their suggestions about active learning.

An important finding of the study is the positive transformation on the feelings of the faculty members. At the beginning of the active learning practices, the faculty members mostly felt anxious, prejudiced, and fearful. On the other hand, they began to feel happy, satisfied, and enjoyed in the process. Evidence from research supports the transformation. For example, Guskey (1985 as cited in Aragaon et al., 2018) emphasized that when faculty members effectively apply active learning and witness favorable outcomes, they experience positive transformations such as increased motivation to teach, emotions of self-efficacy concerning teaching, greater confidence in their teaching, and a revived enthusiasm for teaching. In parallel with Guskey's emphasize in this study, the faculty members explained that their negative feelings transformed into positive ones when they observed the huge outcomes of active learning. Such a positive transformation in the perception of active learning was also reached by Auerbach and Schussler (2017) in the three-year process of active learning practices. In parallel with their conclusion, the met expectations of

the faculty members in the current study contributed to that transformation. At the beginning of the practices, they explained some expectations like increasing academic success, contributing permanent learning, easing their learning process, and it can be reached out that most of the faculty members' expectations were met in the process.

Another important finding of this study is that active learning is thought as a supporting way of students' enhancement of 21st century skills especially problem solving, creative thinking, critical thinking, collaboration, and communication. As Buitrago-Flórez et al. (2021) conclude, active learning provides an encouraging increase in 21st century key skills, namely critical thinking, creativity, communication, and collaboration. The current study result adds especially problem-solving skill to the list, too. In other similar studies, such skills as being open-minded (Chen, 2014), working in groups (Murillo-Zamorano et al., 2019), creativity, and critical thinking (Sgambi et al., 2019) have been also emphasized. Based on all the results, it can be concluded that active learning can be an important way to enhance university students's various 21st century skills.

Besides the 21st century skills, active learning is thought effective in enhancing students' some other important qualifications like self-confidence, capability to explain themselves in public, and social skills- to interact and communicate with others- like making friendships, feeling belonging to their classes, and got happy. Similarly, Furrer and Skinner (2003) emphasized active learning brings out positive feelings, a sense of belonging, and an appraisal of learning tasks as valuable. Moreover, Linnenbrink-Garcia et al. (2011) stress active learning promotes social-behavioral development involving learning activities with classmates.

On the other hand, the current study shows some important problems, related to students, faculty members, and learning environment. Some main problems stated by the faculty members were students' not completing pre-task assignments and lack of engagement in the learning process. For some of the faculty members, these problems were solved during the term because they indicated that the students started to complete the pre-task and to engage more. This result can be supported by other studies emphasizing that when students believe that engaging in active learning helps them learn (Crisol-Moya et al., 2020; Patrick et al., 2016) and they think it increases their self-efficacy (Stump et al., 2014), they do not resist active learning. Faculty members can change students' attitudes toward active learning over the course of a semester by explaining and facilitating it (Nguyen et al., 2017; Tharayil et al., 2018). The current study findings support them by showing that most students got aware of the benefits of active learning in the process and adapted to active learning.

Another set of problems determined in the study was about the faculty members themselves. They frequently explained the difficulty in finding appropriate active learning methods/techniques with their course content, and the much more time and effort to apply them. Likewise, some other problems were found out in other similar studies like the heavy preparatory work, course content, and lack of time (Finelli et al., 2014; Froyd et al., 2013; Henderson & Dancy, 2007; Michael, 2007; Miller & Metz, 2014; Niemi, 2002). These problems can be brought out by "the lack of experience with or knowledge of this approach" as Michael (2007) concludes in his study on the possible pedagogical barriers to active learning. In addition, faculty members wishing to incorporate active learning in their pedagogy have a tendency to try one or more of the methods

(C. M. Patton, 2015). Such a tendency may cause spending much more time and effort on planning and implementation for the faculty members who are about or just start to apply active learning. Furthermore, another underlying reason for such problems stated in the current study may be due to a strong comfort level with traditional teaching methods of faculty members (Miller & Metz, 2014).

The last set of problems was about the learning environment, especially like insufficient classroom environments, crowded classes, overextending course hours, and lack of teaching-learning materials. In some other studies, similar problems were emphasized, too (Henderson & Dancy, 2007; Miller & Metz, 2014; Niemi, 2002). Due to these frequently raised problems in various studies, universities implementing active learning should be concerned about the appropriate learning environments (Talbert & Mor-Avi, 2019). The two significant active learning projects carried out at the universities of Oxford and MIT show the significance of the learning environment for active learning. Student-Centered Active Learning Environment with Upsidedown Pedagogy (SCALE-UP) and Technology Enabled Active Learning (TEAL) projects involved arranging learning environments in line with active learning (Talbert & Mor-Avi, 2019) and showed their effects on the successful implementation of active learning.

Lastly, the faculty members made some suggestions to increase the efficiency of active learning focusing mainly on the learning environments and support for faculty members. They suggested rearranging the learning environments and enriching them with digital tools and other materials. These suggestions are parallel with the problems they emphasized about learning environment. The previously mentioned projects like SCALE-UP and TEAL show their suggestions' importance because the learning environment was accepted as one of the three important parts of active learning and emphasized its importance to rise efficiency of active learning. Their other crucial suggestions concentrate on the support that should be provided for the practitioner faculty members. They expect to get more formal pieces of training on active learning, visit international universities applying active learning efficiently, and arrange encouraging/ rewarding systems for faculty members. It is widely accepted that they get many responsibilities upon applying active learning in their courses, and systematic and continuous pieces of training should be arranged for them. On the other hand, previous studies have shown that faculty members who participated in intensive, weeklong training to teach more actively in a large-classroom setting were not always putting these practices into practice in their own classes, even after receiving specific training on how to incorporate active learning into their classes (Ebert-May et al., 2011). Additionally, it is shown that one-third of faculty members who experiment with active teaching subsequently switched to passive lectures, with many of them claiming complaints from students as the cause (Henderson et al., 2012). These remarkable results should not be evaluated as “an argument against faculty development efforts” (Michael, 2007). However, they indicate the importance of systematic and continuous training supported with other regulations like decreasing course load, supplying ready-made materials, and assistance support as the current study indicates. Furthermore, as the faculty members in this study suggested, supporting systems for faculty members can be a valid way to encourage them to continue using active learning in their courses.

All in all, this study concludes that the faculty members have mainly positive feelings about active learning and believe it supported their students' enhancement of the 21st century skills and other qualifications like self-confidence and social skills. However, they indicate some problems related to the students, the faculty members, and the learning environment. Addionatinally, they present their suggestions to overcome the problems related to only the faculty members, and the learning environment because they believe the problems related to the students were largely solved out in the process. All of these results point out that the faculty members, as the practitioners of active learning may be in favor of applying it at their courses.

Recommedations

This study may present important guiding results for the faculty members and universities eager to apply active learning, and for future studies on the subject. The followings can be recommemded for the faculty members who are implementing/will implement active learning in their courses: Active learning courses should be designed taking students', faculty members' own feautures, learning environment, and course duration into consideration. Such a preparation may dismiss the exra time and effort spend in active learning practices. In addition, the students should be informed about the outcomes of active learning so that their attitudes get more positive and their engagement levels increase. Based on the findings of this study, for the universities planning/implementing studies to increase the quality of both active learning and other teaching-learning reforms, such recommendations can be presented as follows: Pieces of training for future practitioners should be comprehensive and continuous. Active learning efforts should be encouraged through other regulations like supporting systems for faculty members. Furthermore, the learning environments should be arranged suitable for active learning and enriched with digital and other tools. Lastly, in terms of further research, the followings can be suggested: Further studies can be conducted on comparative analysis of the views of students and faculty members, or among faculty members from different disciplines. Furthermore, in future studies, the effects of active learning on developing students' academic success, and the 21st century skills can be analyzed quantitatively. Lastly, future mixed method or/and longtidual studies can be conducted to determine the changes in both the views of different stakeholders and academic achievement scores, skill enhancement levels etc.

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Öğretim Elemanlarının Bakış Açılarına Göre Yükseköğretimde Aktif Öğrenme

Giriş

Sürekli değişen dünyada üniversiteler, öğrencilerine sundukları öğrenme olanaklarının nitelikli olmasını sağlamak zorundadır. Barr ve Tagg (1995, s.15) tarafından vurgulandığı gibi üniversitelerin temel görevlerinden biri "öğretim yapmak" değil "öğrenmeyi sağlamaktır". Öğretimden öğrenmeye doğru olan bu paradigma değişimi, öğrenmenin aktif ve öz yönelimli bir süreç olduğu düşüncesine dayanmaktadır (Dewey, 1924, s. 390). Ancak teknolojik ve pedagojik değişikliklere rağmen (Barak vd., 2007), halen öğretim odaklı geleneksel yöntemler özellikle üniversitelerde yaygındır. Eğitimde paradigma değişiminin zorluğunun farkında olarak bazı üniversiteler bu değişimi destekleme amaçlı projeler yürütmektedir. Öğrencilerin kendi öğrenme sorumluluğunu üstlendiği öğrenci merkezli etkinliklere dayalı olan aktif öğrenme de bunlar arasında yer almaktadır.

Aktif öğrenme; kalıcı öğrenmenin sağlanması, etkin katılımın artırılması, motivasyonun yükseltilmesi, analitik düşünme, problem çözme, eleştirel düşünme gibi becerilerin kazandırılması gibi pek çok fayda sağlamaktadır (Freeman vd., 2014; Machemer ve Crawford, 2007; Niemi, 2002; Niemi ve Nevgi, 2014; Patrick vd., 2016; Prince, 2004; Rotgans ve Schmidt, 2011; Ruiz-Primo vd., 2011; Stump vd. , 2014; Theobald vd., 2020). Ayrıca aktif öğrenmenin farklı disiplinlerde ve farklı öğrenci grupları üzerinde de etkili olduğunu gösteren araştırma sonuçları bulunmaktadır (Ambrose vd., 2010; Bonwell ve Eison, 1991; Chickering ve Gamson, 1987; Theobald vd., 2020). Ancak özellikle lisans düzeyinde aktif öğrenme uygulamalarının yaygın olmadığı da bilinmektedir (Hora ve Ferrare, 2013). Bu durumun nedenlerinden biri aktif öğrenme konusunda şüpheli olan ve bunun yalnızca geçici bir eğilim olduğunu düşünen öğretim elemanları olabilir (Prince, 2004, s. 223). Bradforth vd. (2015) tarafından vurgulandığı gibi daha fazla sayıda öğretim elemanının aktif öğrenmeye ilişkin farkındalık düzeyi artırılmalıdır. Ayrıca üniversite

düzeyinde de fiziksel, dijital ve motivasyonel engellerin ortadan kaldırılması için önlemler alınmalıdır (Proud, 2022).

Aktif öğrenme özellikle 20. yüzyılın son çeyreğinden beri uluslararası alanyazında pek çok kapsamlı araştırmanın odağı haline gelmiştir. Bu araştırmalar, genellikle aktif öğrenmenin öğrencilerin öğrenmesini sağlama durumu (Prince, 2004; Roediger ve Pyc, 2012) ve aktif öğrenmenin yararlarına ilişkin öğrenci görüşleri (Crossgrove ve Curran, 2008; Machemer ve Crawford, 2007) üzerinedir. Ayrıca bazı araştırmalarda da öğretim elemanlarının aktif öğrenmeye ilişkin görüşleri belirlenmiştir (Auerbach ve Schussler, 2017; Avidov-Ungar vd., 2018; Michael, 2007; Patrick vd., 2016). Ancak bu araştırmaların yalnızca belirli bir disiplindeki ve henüz aktif öğrenme uygulamalarını sınıflarında gerçekleştirmeyen öğretim elemanlarının görüşlerine odaklanılarak gerçekleştirilmiş olması sınırlılık olarak değerlendirilebilir.

Aktif öğrenmeye ilişkin ulusal alanyazında ise üniversite düzeyinde gerçekleştirilen araştırmaların sayısı oldukça sınırlıdır ve bunlar genellikle aktif öğrenme yöntemlerinin belirli bir derste öğrenci başarısı, tutumu üzerine etkisine ilişkindir (Kalem ve Fer, 2003; Ozer, 2020). Bu sınırlı sayıdaki araştırmada da vurgulandığı gibi Türkiye'de üniversite düzeyinde gerçekleştirilen araştırmalar çok kapsamlı değildir ve daha fazla araştırmalara gereksinim duyulmaktadır. Sonuç olarak, farklı alanlardan öğretim elemanlarının görüşlerinin incelenmesini temel alan, aktif öğrenmenin sahada uygulamalarına odaklanan ve uygulayıcıların görüşlerine dayalı olarak yapılacak araştırmalara gereksinim duyulmaktadır.

Üniversitelerde sunulan öğrenme-öğretme faaliyetlerinin niteliğini artırma genel amacına ulaşabilmek için aktif öğrenme uygulamalarını gerçekleştiren öğretim elemanlarının görüş ve önerilerinin belirlenmesi önemlidir. Böylelikle aktif öğrenme uygulamaları gerçekleştirmek isteyen öğretim elemanları için yol gösterici verilere ulaşılabilir. Ayrıca üniversite genelinde eğitimin niteliğini artırma amaçlı projeler uygulanan üniversiteler için de önemli veriler sunabilir. Son olarak uygulamaya dayalı olarak ulaşılan veriler, hem aktif öğrenme hem daha farklı öğrenme-öğretme reformlarını planlama ve gerçekleştirme süreçleri için faydalı olabilir.

Bu araştırmanın amacı, öğretim elemanlarının yükseköğretimde aktif öğrenmeye ilişkin kendi deneyimlerine dayalı olarak görüşlerinin belirlenmesidir. Bu amaca ulaşabilmek için aktif öğrenmeye ilişkin öğretim elemanlarının duyguları, beklentileri, fayda ve yaşanan sorunlara ilişkin görüşleri ve önerileri belirlenmiştir,

Yöntem

Araştırma Modeli

Bu nitel araştırma, öğretim elemanlarının aktif öğrenme deneyimlerine ilişkin kendi düşüncelerine odaklandığından bütüncül tek durum çalışması olarak desenlenmiştir. Bir planı, bir olayı, bir görevi veya bir kişiyi içeren "sınırlı bir sistemin" analizi durum çalışması olarak adlandırılır (Creswell, 1998, s. 61). Bu araştırmada aktif öğrenme uygulaması, kendi uygulama ortamında ve katılımcıların yani öğretim elemanlarının görüşlerine göre açıklanmıştır (Gall vd., 1996, s. 545).

Bu araştırma, Türkiye'de bir devlet üniversitesinde gerçekleştirilmiştir. Üniversitede, yaklaşık 25 bin öğrenci sosyal bilimler ve sanat alanlarında öğrenim görmektedir. Üniversite

tarafından eğitimin niteliği artırma amaçlı aktif öğrenme projesi uygulamaya konulmuştur. Bu projenin temel amaçları anlamlı öğrenmeyi sağlamak ve 21 yy. becerilerini öğrencilere kazandırmaktır. 2021-2022 bahar döneminden başlanılarak üniversitedeki tüm programlarda en az bir derste aktif öğrenme yöntemleri uygulanmaktadır ve bu sayı her dönem artacaktır. Proje kapsamında bölümler tarafından aktif öğrenme dersleri belirlenmekte ve ders sorumluları için eğitimler sunulmaktadır. Sonrasında öğretim elemanları eğitim programları ve öğretim alanından bir uzman olan proje koordinatörünün rehberliğinde aktif öğrenmeye dayalı izlenceler hazırlamaktadır. Süreçte koordinatör tarafından öğretim elemanlarına birebir rehberlik hizmeti de sunulmakta ve yapılan uygulamalar, çeşitli araçlarla sürekli değerlendirilmektedir.

Araştırmanın çalışma grubunu, uygulama yapılan üniversitenin çeşitli birimlerinden maksimum çeşitlilik örnekleme yöntemi ile belirlenen 37 öğretim elemanı oluşturmaktadır. Öğretim elemanlarının 25'i kadın, 12'si erkektir. Araştırmaya gönüllü olarak katılan öğretim elemanlarından altısı profesör, beşi doçent, yedisi doktor öğretim üyesi, beşi araştırma görevlisi doktor, beşi öğretim görevlisi doktor ve dokuzu öğretim görevlisidir.

Araştırma verileri, hızlı, düşük maliyetli ve verimli şekilde büyük verilere ulaşabilmek için (Regmi vd., 2016) çevrimiçi görüşmeler aracılığıyla toplanmıştır. Veri toplama aracı araştırmacı tarafından geliştirilen yarı yapılandırılmış görüşme formudur. Görüşme formunun oluşturulması sırasında öğrenme-öğretme stratejileri ve yükseköğretimde eğitimde kalite konularında çalışmalar yapan ve aynı zamanda da nitel araştırmalar yapma konusunda deneyimli uzmanlardan görüş alınmıştır. Formda, demografik bilgilerle ilgili soruların yanı sıra aktif öğrenme uygulamalarına ilişkin altı açık uçlu ve bir de kapalı uçlu soru yer almaktadır. Çevrimiçi görüşmelerden bazıları bireysel bazıları ise odak grup görüşmesi (n=20) şeklinde 2021-2022 bahar dönemi sonunda gerçekleştirilmiştir.

Araştırma verileri, tümevarımsal içerik analizine uygun şekilde analiz edilmiştir (M. Patton, 2014). Görüşmeler gerçekleştirildikten sonra görüşme kayıtlarının transkripsiyonu yapılmış ve öğretim elemanlarının ünvanlarını, cinsiyetlerini ve sırasını gösterecek şekilde kaydedilmiştir. Tüm verilerin kaydı tamamlandıktan sonra araştırmacı tarafından analiz edilmiş, kod ve temalar belirlenmiştir.

Araştırmanın inandırıcılık ve aktarılabirliğini sağlamak için şu gibi önlemler alınmıştır (Yıldırım ve Şimşek, 2016): Veri toplama ve analiz süreçleri ayrıntılı şekilde betimlenmiş ve bulgular doğrudan alıntılarla desteklenerek sunulmuştur. Bilgisayara aktarılan görüşme kayıtları katılımcıların üçü ile paylaşılmış ve katılımcı teyidi sağlanmıştır. Tutarlılığı sağlamak için ise görüşme formlarının hazırlanmasında görüşü alınan uzmanlardan biri ve araştırmacı birlikte çalışmıştır. Bunun için öncelikle araştırmacı analizleri yapmış ve nitel araştırmalarda deneyimli olan bu uzman, araştırmacı tarafından oluşturulan kod/temaları kontrol etmiştir. Daha sonra kodlayıcılar arası güvenirliği sağlama odaklı çevrimiçi bir toplantı gerçekleştirilmiştir. Bu toplantıda kod/temalara ilişkin bazı görüş ayrılıkları belirlenmiş ve yapılan incelemeler ve tartışmalar sonucunda fikir birliğine ulaşılmıştır.

Bulgular

Yükseköğretimde aktif öğrenmeye ilişkin öğretim elemanlarının duyguları, beklentileri, fayda ve yaşanan sorunlara ilişkin görüşleri ve önerileri belirlenmiş ve bulgular beş ana tema altında sunulmuştur. Öğretim elemanlarının dönem başlangıcında ve sonunda *aktif öğrenmeye yönelik duyguları* incelenmiştir. Öğretim elemanları uygulama başlangıcına ilişkin çoğunlukla olumsuz, ancak dönem sonunda tamamı olumlu duygular ifade etmişlerdir. Başlangıçtaki olumsuz duygular çoğunlukla endişe, önyargı ve korkudur. Dönem sonunda vurgulananlar ise mutluluk, memnuniyet ve keyiftir. Ayrıca öğretim elemanlarının dönem başlangıcında *aktif öğrenmeye ilişkin beklentileri* olduğu belirlenmiştir. Bu beklentiler; aktif öğrenme ile akademik başarının artması, kalıcı öğrenmenin sağlanması, etkin katılımın sağlanması, öğrencilerin ilgilerinin derse çekilmesi ve öğrenme sürecinin kolaylaşmasıdır. Bu beklentilerin gerçekleşip gerçekleşmediğini ortaya çıkarmak için öğretim elemanlarının *aktif öğrenmenin katkılarına ilişkin görüşleri* belirlenmiştir. Öğretim elemanlarına göre aktif öğrenme öğrencilerin 21. yüzyıl becerilerini kazanmalarına katkı sağlamıştır. Ayrıca aktif öğrenme öğrencilerinin kendine güvenini artırmış, kendilerini daha iyi ifade edebilmelerini ve bilgiye ulaşma ve kullanma becerilerinde gelişmesini sağlamıştır. Öğretim elemanlarına göre *aktif öğrenmede karşılaşılan sorunlar* ise öğrencilerden, öğretim elemanlarından ve öğrenme ortamından kaynaklanmaktadır. Öğrencilerin derse katılım düzeylerinin beklentinin altında olması, ders öncesi verilen görevleri yapmamaları, derste etkinliklere katılmamaları gibi sorunlar belirtilmiştir. Öğretim elemanlarının pek çoğu bu sorunların süreçte ortadan kalktığını da belirtmiştir. Ayrıca öğretim elemanları süreçte ders içeriğine en uygun aktif öğrenme yöntemini bulma ve izlence hazırlamada sorunlar yaşadıklarını belirtmişlerdir. Öğretim elemanları sınıfların fiziksel özelliklerinin aktif öğrenme uygulamalarına uygun olmamasından, sınıf mevcutlarının fazla olmasından, çevrimiçi-hibrit derslerde bazı yöntemlerin uygulanmasının zor olmasından kaynaklanan sorunlar da yaşadıklarını belirtmiştir. Son olarak, öğretim elemanları *aktif öğrenmeye ilişkin öneriler* sunmuşlardır. Onlara göre öğrenme ortamlarının düzenlenmesi ve öğretim elemanlarının desteklenmesi sağlandığında aktif öğrenme uygulamaları daha etkili olabilir.

Tartışma ve Sonuç

Araştırma sonucunda öğretim elemanlarının aktif öğrenmeye ilişkin başlangıçtaki olumsuz duygularının süreç sonunda olumluya dönüştüğü belirlenmiştir. Bu dönüşümde aktif öğrenmenin öğrenciler üzerindeki olumlu etkilerini gözlemlemeleri etkili olmuş olabilir. Guskey (1985 akt. Aragaon vd., 2018) tarafından da vurgulandığı gibi öğretim elemanları aktif öğrenmeyi uygulayıp olumlu sonuçlarını gördüğü zaman bu uygulamayı gerçekleştirmeye daha çok istekli olurlar. Bu araştırmanın bir diğer önemli sonucu aktif öğrenmenin öğrencilerin problem çözme, yaratıcı düşünme, eleştirel düşünme, işbirliği yapma, iletişim kurma gibi 21. yy becerilerinin kazandırılmasında etkili olmasıdır. Bu sonuç farklı araştırma sonuçlarını da destekler niteliktedir (Buitrago-Flórez vd., 2021; Chen, 2014; Murillo-Zamorano vd., 2019; Sibona ve Pourreza, 2018; Sgambi vd., 2019). Ayrıca aktif öğrenmenin öğrencilere kendine güven ve bazı sosyal beceriler kazandırdığı da belirlenmiştir. Furrer ve Skinner (2003) ve Linnenbrink-Garcia vd. (2011) tarafından da vurgulandığı gibi aktif öğrenme ait olma, öğrenme etkinliklerinin değerini fark etme, olumlu duygular besleme gibi sosyal gelişimlerini sağlayacak katkılar sunmaktadır. Araştırmanın bir diğer önemli sonucu ise süreçte yaşanan özellikle öğrencilerden kaynaklanan

sorunların bir kısmının çözüldüğüne ilişkindir. Bu durumun nedeni öğrencilerin aktif öğrenmenin öğrenmelerini sağladığını fark etmeleri (Patrick vd., 2016) ve bunun sonucunda da direnç göstermekten vazgeçmeleri olabilir. Öğretim elemanları ile ilgili ağır iş yükü, zaman problemleri ve öğrenme ortamı ile ilgili kalabalık sınıflar, uzayan ders saatleri, araç-gereç sıkıntısı pek çok farklı bağlamda yapılan araştırmalarda da aktif öğrenme sürecindeki sorunlara ilişkin ulaşılan ortak sonuçlar arasındadır (Henderson ve Dancy, 2007; Miller ve Metz, 2014; Niemi, 2002). Michael (2007) tarafından vurgulandığı gibi öğretim elemanlarının belirttiği bu sorunlardan bazıları aktif öğrenmeye ilişkin deneyim ve bilgi eksikliğinden kaynaklanıyor olabilir. Bu nedenle öğretim elemanlarının aktif öğrenme uygulamaları sürecinde desteklenmesi oldukça önemlidir. Ayrıca öğretim elemanlarının özellikle öğrenme ortamı ile ilgili vurguladıkları sorunların ortadan kaldırılması üniversite genelinde yapılacak düzenlemeler ile mümkündür. Bu araştırmadaki öğretim elemanları tarafından yapılan önerilerin de paralelinde Oxford ve MIT üniversiteleri tarafından gerçekleştirilen SCALE-UP ve TEAL projeleri bu problemlerin önemi ve nasıl ortadan kaldırılacağına ilişkin yol gösterici niteliktedir (Talbert ve Mor-Avi, 2019).

Sonuç olarak, bu araştırmada öğretim elemanlarının aktif öğrenme uygulamaları hakkında ağırlıklı olarak olumlu duygulara ve öğrencilere katkıları konusunda önemli beklentilere sahip oldukları belirlenmiştir. Ayrıca öğretim elemanlarına göre aktif öğrenme öğrencilerin 21. yüzyıl becerileri ve özgüven, sosyal beceriler gibi diğer nitelikleri kazandırmada etkilidir. Aktif öğrenme sürecinde sırasında öğrencilerden, öğretim elemanlarından ve öğrenme ortamlarından kaynaklanan sorunlar yaşanmaktadır. Öğrenciler ile ilgili olan sorunlar çoğunlukla süreç içerisinde çözülürken, özellikle diğer sorunların çözümü için kapsamlı hizmet içi eğitimlerin düzenlenmesi, öğrenme ortamlarının aktif öğrenmeye uygun hale getirilmesi gibi öneriler gerçekleştirilmelidir. Tüm bu sonuçlar, öğretim elemanlarının kendi deneyimlerine de dayalı olarak aktif öğrenmenin derslerde uygulanması gerektiğini düşündükleri şeklinde yorumlanabilir.

Öneriler

Araştırma sonuçlarına dayalı olarak üniversitelerde aktif öğrenme uygulamalarına ve yapılacak araştırmalara ilişkin şu öneriler sunulabilir: Aktif öğrenme uygulamalarını gerçekleştiren/gerçekleştirecek olan öğretim elemanları, derslerini öğrenci ve öğretim elemanları ile ders süresi ve öğrenme ortamlarının özelliklerini dikkate alarak tasarlamalıdır. Böylelikle aktif öğrenme uygulamaları sırasında harcanan ekstra zaman ve çaba en aza indirilebilir. Ayrıca öğrenciler, aktif öğrenmenin faydaları hakkında bilgilendirilerek onların aktif katılımı artırılmalıdır. Aktif öğrenme uygulamalarını gerçekleştiren/gerçekleştirecek üniversiteler için ise öğretim elemanlarına sunulan hizmet içi eğitimlerin kapsamlı ve sürekli olmasının sağlanması, onların çabalarının çeşitli teşvik/ödüllendirme sistemleriyle desteklenmesi önerilebilir. Son olarak, üniversitelerde aktif öğrenme uygulamalarına ilişkin yapılacak gelecek araştırmalarda öğrenci ve öğretim elemanlarının görüşleri karşılaştırmalı incelenebilir, aktif öğrenmenin akademik başarı ve özellikle 21 yy. becerilerini kazandırmada etkisi araştırılabilir.