Heterotopic View, June 2024, 2(1), 25-34
DOI: https://doi.org/10.5281/zenodo.12180257

Research Article
E-ISSN: 2980-2644

HETEROTOPIC VIEW

Journal homepage: www.heterotopicview.com

HETEROTOPIC VIEW
Social Sience Journal

THE EXPERIENCES AND NEEDS OF THE INSTRUCTORS PROVIDING DISTANCE EDUCATION

Cansu ŞAHİN KÖLEMEN[1]

Article Info
Date Received
24.03. 2024
Date Accepted
05.04.2024

Keywords
Distance Education, E-measurement and assessment, E-assessment Web 2.0 tools, Education technologies

Abstract. The objective of this study is to establish the experiences and needs of the higher education instructors in relation with the measurement and assessment concepts. In line with this objective, the case study method has been preferred as a qualitative research practice. The criterion sampling method has been used for the study. The study group consists of 14 higher education instructors who provide distance education to the students and relatedly use e-measurement and assessment methods. The data collection tool has been practiced as semi-structured interviews. The semi-structed interview form consists of demographic information and four questions. The obtained data have been processed under content analysis method. It has been as a result of the study that It has been observed that the methods commonly preferred by instructors in distance education are projects, e-portfolio and peer assessment. It has been determined that the problems experienced by instructors in e-assessment and evaluation methods are student-related.

1. Introduction

The measurement and assessment process in education aims to establish the achieved levels of the targeted gains, the successes of the students, the effectiveness of the teaching process together with the strengths and weaknesses of the respective learning procedures (Güler and Gelbal, 2010). Sarı (2020) defines the measurement and assessment as the decision of the teacher if the students have acquired the targeted objects or not; and concreting the respective scores for each student/learner. Atılgan (2019) claims that measurement and assessment provides the levels of achivements by the learners towards the targeted teaching gains. The concept of assessment is the decision process that determines the development level of the learner through the comparison of the measurement results with the certain criteria. For the completion of the assessment episode, the measurement and the criteria are sine qua non premises. In other words, the assessment is only possible if the measurement results are compared to the determined criteria. Eyal (2012) defines an effective measurement and assessment process as the course to establish the information level of the student through combining the systematical or non-systematical data for analysis, interpretation and decision. Basing on the aforementioned definition, we may claim that the measurement and assessment practices have common objectives regardless of the teaching method. However, the distance education differs from the conventional education whereas the respective measurement and assessment procedures also demonstrate variances.

Comparing the traditional education model of distance education, it is a model that offers opportunities to learners (İşman, 2011). According to Simonson, Smaldino, and Zvacek (2015), it is a teaching environment where various materials and methods serve through digital learning environments. Distance education is a method of teaching lesson outcomes from a specific center through a digital learning environment by designing the interaction between teachers and students (Kaya, 2002). As in traditional, education, me asurement and evaluation process in distance education is handled in two categories: formative and level-determining (Balta & Türel, 2013). Online formative methods are used for formative assessment in distance education. E-portfolio and quizzes are the leading online formative methods (Çiğdem & Tan, 2014). Web 2.0 tools are generally used for quizzes in the distance education process. Level-determining evaluation in distance education is the process of deciding how much they have reached the goal in line with the determined goals Simonson et al., 2012). Online exams, peer assessment, online projects and online assignments are preferred for level-determining assessment (Cabı, 2016).

Distance education is the provision of mass education with independent learning as a result of students' need for various

[1] Dr., Beykoz Üniversitesi, Meslek Yüksekokulu, İstanbul

Atıf: Şahin Kölemen, C. (2024). The experiences and needs of the instructors providing distance education. *Heterotopic View*, *2*(1), 25-34.

learning models. This model provides equal opportunities in education in the education process of students (Dündar, Candemir, Demiray, Genç Kumtepe, Öztürk, Sağlık Terlemez, & Ulutak, 2017). Distance education includes educational activities that do not require the learner and teacher to be face-to-face in the same environment and at the same time. It is a model that allows teaching at every level from primary education to higher education (Enfiyeci & Büyükalan-Filiz, 2019). Distance education has many advantages. These are: (1) It offers flexibility in terms of learning time and place. (2) It adopts the diagnostic and breeder model. (3) It reaches wide audiences. (4) It enables individual and mass education. (5) It develops learners' learning skills. Along with the listed advantages, there are also disadvantages. These disadvantages are: (1) There are problems with counseling and quick feedback. (2) Learners whose self-regulation skills are not developed cannot carry out the learning process effectively and efficiently. (3) It increases the dependency on information and communication technologies. (4) There may be interaction problems between learner-learner and teacher-learner (Yurdakul, 2020).

In distance education, not only lessons but also measurement and evaluation processes are used. Because the academic performance and high-level skills of the student in the learning process of measurement and evaluation in distance education are revealed (Kara, 2019). There are many advantages and disadvantages of vacancy and evaluation in distance education. It provides benefits to both the teacher and the learner by recording the training and evaluation time data in distance education. In terms of learners, navigating and assessing distance education provides information about learning assessment grades, whether or not the learner completes their assigned cells, the rate of course attainment, and learning compared to other learners. Thus, it is left to the learner to navigate the distance education model and to learn by evaluation. From the perspective of teachers, teachers have information about learners. Thus, the results of individual evaluations can be addressed to them. In addition, teacher-student interaction increases and personal feedback can be provided more easily (Dietel et al., 1991; Eyal, 2012). As a result, there are some difficulties in the dissemination of measurement and evaluation in distance education. Because measurement and evaluation in distance education requires continuity and systematicity (Robles & Braathen, 2002).

U.S. Agency for International Development (USAID) has performed a study in 2021 and consequently prepared a guide related to the measurement and assessment in distance education process. The guide defines four steps (Tonga, 2023):

1. Simultaneously with the determination of the distance education model, the assessment goals for the learning should be declared.
2. The targets to be measured (such as the access to the distance education, student attendance to the courses and levels of achievements towards the targeted objectives etc.) should be clearly defines.
3. The decisions related to the collection methods of the assessment data should be given. The learner data has been started to be collected through more innovative methods and learning environments after the pandemy.
4. The measurement methods and approaches of the distance education process should be decided. The technologies, methods and assessment interfaces, which will support the achievement of the targeted information levels, socio-emotional gains and skills, should be defined under this step. This definition should have been realized through the planning process of the course.

One of the highlights of the steps listed is the innovative measurement and evaluation methods in the distance education process. Because alternative measurement and evaluation methods in distance education are increasing with the spread of distance education. Alternative measurement and evaluation means the involvement of computers in this process (Cabı, 2016). For alternative measurement and evaluation, digital measurement and evaluation tools are designed together with the distance education model. In this process, the results obtained from computers, online tools and browsers are evaluated. After the evaluation, the results are published. Thus, alternative measurement and evaluation covers all processes from the beginning to the end of the evaluation activities. (Huba & Freed, 2000).

Many web 2.0 tools are used through various platforms for alternative assessment and evaluation in the distance education model. Web 2.0 tools are used both in the teaching process and for measurement and evaluation purposes. With the spread of distance education passed as a result of the pandemic, the use of these tools has intensified. In this process, various tools are used to create mind maps, boards, posters, cartoons, blogs, tests, puzzles, presentations, animations, information posters, infographics, stories and books (Çelik, 2021). Some of the tools used to measure and evaluate electronically are: Kahoot, Quizizz, Quizlet, Qwizdom, Crowdsignal, Wooclap Gimkit, Bookwidgets, Mentimeter, Nearpod, Osmosis, Plickers, Polleverywhere, Socrative, and Zeetings (Aydoğan-Yenmez and Gökçe, 2021; Çelik, 2021; Solmaz, 2021). These tools have an important place in the measurement and evaluation of the distance education process.

Considering the distance education system, the most frequent measurement and assessment methods may be listed as multiple-choice tests, true/false questions, matching questions, short answered questions and assignments (Çakan, 2011). Besides these conventional tools, some alternative methods as the portfolios, performance tasks, observation, research projects, group and peer assessments are present (Alıcı, 2011). The purpose of the alternative methods is to understand the superior cognitive and critical thinking abilities of the learners with regard to the acquired information. The most popular measurement and assessment methods used in distance education process are performance based or portfolio intensive tools (İnesi, 2015). In other words, e-portfolio, peer assessments, self-assessments, project performance tasks etc. Alternative measurement and assessment tools can be seen through the distance education

processes. The Table-1 demonstrates the measurement and assessment tools used in the distance education process.

Table 1. The Measurement And Assessment Tools For Distance Education

Measurement And Assessment Tools	
Assignments	Open ended question homeworks
	Study cards
	Article
	Thesis
	Report
Exams	Multiple-choice test
	Long/Short answered question
	Matching
	True/False
	Mind map
	Grid method
	Quiz
Performance Assessment	Individual and group projects
	Discussion panels and forums
	Simulation
	Virtual laboratory
	Presentations
	Educative games
	Interviews
Portfolio	E-portfolio
Learner Included Assessment	Pre-test
	Self-assessment
	Peer-assessment
	Group assessment
Affective Cases	Questionairre
	Likert type scale

Measurement and evaluation based on classical and test exams are still preferred primarily. Alternative measurement and evaluation methods are not preferred except for exams given as homework at the undergraduate level (Sarı, 2020). When the literature is examined, Adıgüzel (2020) conducted a study on how teachers evaluate the success of students with the transition to distance education during the pandemic process. As a result of the study, it was seen that the measurement and evaluation methods used by the teachers in face-to-face education were used in distance education in the same way. Kılınç (2022) conducted a study on how discussion forums are used in the evaluation process in distance education. In the study, it was observed that the learners also actively participated with the gamification elements in the discussion forums. In the study conducted by Pekcan and Toraman (2022), the views of learners and teachers about measurement and evaluation methods in distance education were discussed. According to the results of the research, the teachers state that the measurement and evaluation tools in distance education are reliable, partially sufficient and useful. In addition, they stated that they generally prefer multiple choice test techniques. It has been seen that despite the distance education processes are conducted actively in the higher education enviroments still e-measurement and assessment processes had not improved towards the expected levels (Tomas et.al., 2015). In other words, e-measurement and assessment is a sub-dimension of the distance education however lacks sufficient number of scientific studies. Accordingly, it is deemed that this study would contribute for the remedy of the deficiencies related to both the needs of the instructors and the distance education conceptually. Under the light of all the aforementioned facts, the objective of this study has been defined as to establish the experiences and needs of the higher education instructors in relation with the measurement and assessment in distance education. Thus, the answers of the following questions have been researched.

1. What are the more popular measurement and assessment methods preferred by the instructors in distance education?
2. What are the problems experienced by the instructors regarding alternative assessment and evaluation in distance education?
3. What do instructors need for alternative assessment and evaluation in distance education?

2. Method

This title includes information about the research design, study group, data collection tool and process, and data analysis.

2.1. Research Design

The qualitative research method has been used in this study. The qualitative research finds out the natural phenomena. The author declares his/her subjective opinions in relation with the described problems (Baltacı, 2017). The qualitative studies interpret the defined problems within the frame of specific conditions attributed to such problems. Accordingly, the researcher focuses on the meanings attributed to the events and phenomena by the participants. Thus, exploring mental processes of the researcher play an important role in the qualitative studies (Malterud, 2001; Eysenbach & Köhler, 2002). Moreover, the qualitative researchers also include the deep analyses and descriptions effective in the time of their occurrence of the respective events and phenomena (Golafshani, 2003). In this study, phenomenology method was preferred in qualitative research methods. Phenomenological research is an in-depth and detailed understanding that exists in our daily lives. It aims to reveal our experiences and the meaning we attribute to our experiences by focusing on facts that we do not have (Titchen & Hobson, 2005; Simsek & Yıldırım, 2011; Seggie & Bayyurt, 2015). People's experiences form the basis of phenomenology. In addition, the researcher is interested in participants' subjective experiences, perceptions and the meanings they attribute to events. Since it is a descriptive research design, it aims to describe existing situations (Patton, 1990). In addition, its participants must have experience with the directly selected phenomenon (Patton, 2014). In this study, the phenomenological research design was preferred since the experiences and needs of the

instructors regarding measurement and evaluation in distance education will be examined in detail. For the present study ethics committee approval was taken from Beykoz University, Ethics Committee for Researches.

2.2. Participants and Procedure

The qualitative research includes several sampling/sample methods. However, the crux is selecting the sample which will contribute to the best explanation of the considered study problems (Baltacı, 2018). The qualitative research method mostly prefers longer and detailed work with smaller study groups as aiming to reach much possible details. While determining the sample, the author should have a good command over the area from which he/she will collect data (Neuman ve Robson, 2014).

Considering the problems of this study, the criterion sampling tool has been preferred as a purposive sample method. The purposive sample enables the detailed examination of the phenomena and events which are deemed to include resourceful information (Denzin and Lincoln, 2008). The criteria sampling requires the selected participants to incorporate certain qualifications. The criterion of this study is defined as the use of the e-measurement and assessment methods by the higher education instructors providing courses through distance education. The demographic information related to the higher education instructors, i.e. the study group, is given under Table-2.

Table 2. The Demographic Information Of The Instructors In The Study Group

Code	Gender	Term in Office	Branch	Education Level
T1	Female	5	Handicapped Teaching	Bachelor's
T2	Female	7	Psychological Counselling and Guidance	Bachelor's
T3	Male	12	Computer Engineering	Bachelor's
T4	Male	10	Software Engineering	Bachelor's
T5	Female	13	Computer and Learning Technologies Teaching	Bachelor's
T6	Male	8	Computer and Learning Technologies Teaching	Bachelor's
T7	Female	10	Digital Game Design	Bachelor's
T8	Female	15	Graphic Design	Bachelor's
T9	Male	11	Interior Architecture	Bachelor's
T10	Female	9	Radio, Cinema and Television	Bachelor's
T11	Female	7	Handicapped Teaching	Bachelor's
T12	Female	6	School Teaching	Bachelor's
T13	Male	12	Primary School Math Teaching	Bachelor's
T14	Male	10	Child Development	Bachelor's

There are 14 lecturers in total who participated in the research. 57.1% of the study group is female and 42.9% is male instructors. According to the table, the minimum term of office is 5 years; There are lecturers with a maximum of 13 years of tenure. All faculty members teach at the undergraduate level. However, it seems that these faculty members work in different faculties. The instructors participating in the study benefited from alternative measurement and evaluation processes instead of traditional measurement and evaluation in the distance education process. They have gained experience in this subject by preferring different e-measurement and evaluation methods throughout the term.

2.3. Measures

The qualitative research method includes interviews, focused interviews, document analysis and observation etc. data collection tools that enable content and descriptive analyses to be conducted (Forrester & Sullivan, 2018). The interview is a data collection tool through which the participants declare their ideas and feelings about the determined problem (Seidman, 2006). In this study, the interview method was used to reveal the experiences and needs of the instructors on the subject. Individual interviews were conducted with all participants. The reason for preferring the interview method in this study is to draw the original experiences and ideas of the participants in relation with the study problems aforementioned.

The problem related to the subject event or phenomenon in qualitative research is the converted to a question sentence. The

problem is turned to a question form and its borders are defined under a theoretical frame. The questions in the interviews were prepared according to the privatizing question type of the qualitative research method. Because in this type of question, it is aimed to learn to the smallest detail about the subject. The study problems then also point out the tendency of the theoretical frame (Patton, 1990; Sandelowski, 1986). Accordingly, the determination of the study questions and the formation of the theoretical frame are interactive processes of a qualitative research (Şimşek & Yıldırım, 2011).

2.4. Data Analysis

Following the determination of the study group and preparation of the data collection tools, the data gathering stage has been started. In this phase, the researcher should prefer the suitable sampling and data collection tools as in line with the theoretical frame, otherwise several problems may be faced while trying to solve the research problem (Creswell, 2005).

This study has used a semi-structured interview form. The form includes two separate dimensions. The first dimension is defined as the demographic information of the participants whereas the second dimension constitutes of the study questions. There are four questions in this study: (1) Which alternative measurement and assessment methods did you use in distance education process? 2) What was the reason to prefer your respective measurement and assessment methods in distance education? (3) What were the problems you have faced in relation with the e-measurement and assessment in distance education? (4) What were your requirements for e-measurement and assessment in distance education? An interview was held with an undergraduate student to evaluate the appropriateness and comprehensibility of the questions in the interview form. While designing these interview question, the author has made use of the previous studies conducted in this topic. The questions are designed carefully as to be clear and understandable. While forming the interview questions, care was taken to ensure that the questions were clear and understandable. All interviews were recorded on Zoom. The interviews have been conducted online on the dates and at times decided by the participants. The Table-3 demonstrates the interview schedule with the participants before the analysis stage.

Table 3. Participant Interview Schedule

Code	Place	Time
T1	Online	13 min
T2	Online	12 min
T3	Online	15 min
T4	Online	12 min
T5	Online	16 min
T6	Online	14 min
T7	Online	17 min
T8	Online	11 min
T9	Online	10 min
T10	Online	14 min
T11	Online	13 min
T12	Online	13 min
T13	Online	16 min
T14	Online	12 min

**The interview periods have been rounded to the closest number.*

Following the data collection process, the content analysis has been performed on the obtained data. The content analysis requires the detailed examination of the data at hand. The codes and themes may be found through the content analysis. Generally, the researcher considers and accepts the points most repeated or expressed significantly by the participants as the codes and the themes. The data obtained in the content analysis mostly focuses on the statements that the participants emphasize and repeat (Merriam & Grenier, 2019).

Creswell (2005) considers four categories in the content analysis process. These steps were also taken into account in this study. (1) The coding of the data, the data collected at this stage were divided into sections by the researcher and examined in detail. In this step, the data were read several times by the researcher. (2) Code and themes were created, after the completion of the first step, codes and themes were created. (3) The codes and themes created during the editing of the codes and themes were reviewed by the researcher. At this stage, the comments of the researcher were not included. (4) It is the presentation and interpretation of the findings. The findings were interpreted and the relationships between the findings were revealed.

3. Findings

In this section, the findings of the sub-problems addressed in line with the purpose of the research are given.

3.1. Findings Related To The First Sub-Research Problem

The first sub-question of the study is “What are the more popular measurement and assessment methods preferred by the instructors in distance education?” The content analysis has been performed on the data obtained through the interviews. Table-4 demonstrates the results of the content analysis.

Table 4. The Themes And Codes Related To The More Popular Measurement And Assessment Methods Preferred By The Instructors In Distance

Theme	Codes	Participants
Alternative measurement and assessment methods	Article	T3, T8, T11, T12
	Projects	T1, T2, T4, T5, T6, T8, T10, T11, T12, T14
	Forums	T2, T3, T7, T10, T13
	Presentation	T1, T4, T6, T9, T13, T14
	E-portfolio	T1, T2, T4, T5, T7, T8, T9, T11,

		T12, T14
	Peer assessment	T1, T3, T5, T9, T11, T13, T14
	Self-assessment	T2, T4, T5, T14
Classical measurement and assessment methods	Open-ended questions	T6, T7, T10
	Multiple choice tests	T2, T6, T7, T10,
	Quiz	T1, T2, T7, T8, T10, T14

According to Table 4, it has been determined that the instructors also benefit from alternative and classical measurement and evaluation methods in distance education. Projects, e-portfolios and peer assessment are the methods that instructors commonly prefer in alternative assessment and evaluation methods. T1, who used three of his methods that stand out from alternative measurement and evaluation methods, stated the following: “The portfolio was a measurement and assessment method I used to prefer in the conventional education. However, this method digitalized also in the distance education and its simple functionality encourages me to use it. Since I cannot determine practical information so efficiently by using true/false questions or multiple-choice tests, the evolved e-portfolio method provides me more advantages indeed.” As it is seen, it has been mentioned that classical measurement and evaluation methods are preferred in distance education because they are insufficient in terms of what the student knows. In addition, one of the reasons why the instructors prefer this method is that they can evaluate the process and the student's development processes can be easily monitored. It is also mentioned that group projects are preferred more in the distance education process because they are prone to cooperation. Finally, it has been determined that the instructors also prioritize peer evaluations due to the projects they have given. For this situation, T5 stated the following: “I assign projects aiming certain information gains whereas I also obtain the peer assessments after the group works of that project.”

It was determined that open-ended questions and multiple-choice tests, especially quizzes, were used among the classical measurement and evaluation methods. In addition, it is seen that some instructors use both classical and alternative measurement and evaluation methods in the measurement and evaluation process. Using these methods, T2 used the following expressions: "I use quizzes for questions at the knowledge level to determine what students remember or not remember at the end of the topic." The instructor emphasizes that she uses different measurement and evaluation methods in the distance education process in line with the purpose she has determined.

3.2. Findings Related To The Second Sub-Research Problem

The second sub-question of the study is “What are the problems experienced by the instructors regarding alternative assessment and evaluation in distance education?” The content analysis has been performed on the data obtained through the interviews. Table-5 demonstrates the results of the content analysis.

Table 5. Themes And Codes Regarding The Problems Of Faculty Members In Alternative Measurement And Evaluation In Distance Education

Theme	Codes	Participants
Teacher-related problems	Workload redundancy	T1, T2, T5, T8, T10, T11, T12, T13
	Lack of evaluation criteria	T1, T3, T4, T5, T6, T9, T10
Student-related problems	Low student participation	T3, T10, T13
	Inability of students to be objective in self-assessment and peer assessment	T1, T3, T5, T11, T14
	Student's inability to do research	T1, T2, T4, T6, T7, T12, T13
	Learner-learner interaction limitation	T3, T4, T7, T10, T11, T14
	Lack of motivation	T1, T2, T4, T5, T9, T10, T11, T13
	Ignoring assessment and evaluation in distance education	Ö3, Ö4, Ö6, Ö7, Ö9, Ö10, Ö12

When Table 5 is examined, it is seen that the problems experienced by the instructors in alternative measurement and evaluation methods in distance education are predominantly student-related. Lack of motivation comes first among the problems stemming from students. For this, T9 made the following statements: “Due to the continuing education with distance education for a long period of time with the pandemic, it is already seen that there is a loss of motivation in the students both in the lessons and in the evaluation process.” This situation also causes the problem of low student participation, which is another problem. T4 expresses the low level of student participation as follows. “Since students are accustomed to classical assessment and evaluation and are bored with distance education, their participation in alternative assessment methods is low.” The fact that they do not participate also shows that they do not give enough value to the measurement and evaluation process in distance education. In addition, the students' lack of research skills in the problems experienced by the learner, their inability to be objective in the evaluation process and the lack of learner-learner interaction are among the problems experienced. Stating clearly that students cannot be objective in the evaluation process, T14 emphasizes: “The students are definitely not objective while they perform self-assessments and peer assessments.” T2 expresses the lack of doing research as follows: “The students are generally used to the test type exams and accordingly they do not

know how to make a research. So, they are unfamiliar to such methods we utilize in the measurement and assessment tools of the distance education." As it can be understood from the quotations, it is seen that the students also have problems in the alternative assessment and evaluation process due to their self-regulation skills and independent learning problems.

Considering the problems arising from the teacher, the inclusion of alternative assessment and evaluation in the process along with the course load of the instructor increases the workload considerably. This seems to be the most striking problem arising from the instructor. For this situation, T13 expresses the following sentences: "Indeed it increases our work burden and this is kind of a problem. In the conventional methods, the learning management systems perform the assessments themselves however in alternative methods it takes our time." It is understood from the quotation that this problem is an important problem by the instructors. Another problem experienced by the teacher is that the evaluation criteria are not clearly determined. This situation T4 "The assessment criteria should be defined more clearly with regard to the learning targets. In each stage of the e-measurement and assessment procedures, the scores required, targeted gains for the student etc. criteria should be structured more clearly and in detail." stated as. It is understood from the findings that what is wanted to be done should be determined and scored in advance, and it is appropriate to share it with the students.

3.3. Findings Related To The Third Sub-Research Problem

The third sub question of the study is "What do instructors need for alternative assessment and evaluation in distance education?" The content analysis has been performed on the data obtained through the interviews. Table-6 demonstrates the results of the content analysis.

Table 6. The Themes And Codes Related To The Needs Of The İnstructors In Alternative Measurement And Evaluation In Distance Education

Theme	Codes	Participants
Students' skill needs	Developing digital literacy skills	T4, T13, T14
	Developing students' individual study habits	T2, T4, T5, T6, T8, T9, T12
	Providing students with awareness of alternative measurement and evaluation methods	T1, T3, T4, T5, T7, T8, T10, T13
	Get used to the authentic question type	T3, T6, T10, T14
	Web 2.0 tools training	T1, T2, T4, T7, T8, T11, T12, T14
Teachers' needs	Decreased course load	T1, T5, T8, T10, T11, T12, T13
	Developing digital literacy skills	T5, T7, T12
Systemic needs	Difficulty creating a question bank	T3, T6, T9, T13,

According to Table 6, the needs of the instructors in this regard are gathered under three themes. These are: needs for students' skills, instructor and system. When the needs of the instructors are examined, it is seen that it is necessary to obtain information about web 2.0 tools in order to follow the remarkable code update. OE1 expresses this need as follows. "I know the e-measurement and assessment methods and in general I see other instructors are also aware of the same. However, this knowledge requires a dimension of using the Web 2.0 tools which we the instructors need indeed a support about. If we can use such tools effectively after respective trainings, we can increase the motivation and attendance of the students." It is thought that learning Web 2.0 tools by the instructors will be an innovation for the students during the lesson and will affect their motivation positively. Another need is that the workload of the instructors is high, as emphasized in the problems experienced. When the needs of the students are examined, it is seen that the learning of web 2.0 tools is important for the students as well as the needs of the instructors. In addition to gaining this awareness, it has been determined that students should also gain digital literacy skills. T14 summarizes this situation with the following sentences: "The technology is in a fast pace in the present time. Besides the use of the computers, the instructors and the learners both require to be digitally literate. Thus, I think certain attempts and works are necessary to empower us and the students with digital literacy skills." Systematically, the interfaces of the learning management systems used by the instructors to prepare a question bank are not user-friendly.

4. Discussion and Conclusion

Together with the structuring teaching approach, the conventional measurement and assessment methods are also being questioned. Besides, the proliferation of the distance education automatically causes the e-measurement and assessment methods to be in the agenda. This is because the distance education practices claim that the conventional measurement and assessment methods are insufficient and unfair considering their (distance education practices') own unique structure (Sarı and Nayır, 2020). The measurement and assessment methods should be suitable and/or adaptable to the current technology whereas they must ensure a self-discipline for the students. The e-measurement and assessment methods in use together with the distance education are mostly process focused practices. Moreover, they gift different skills and abilities to the students (Sarı, 2020). Considering all these facts, this study aims to establish the measurement and assessment experiences and needs of the higher education instructors providing lectures in distance education. It is thought that the use of the e-measurement

tools and methods, together with the clarification of the problems and needs related to the e-assessment, shall contribute to the improvement of the distance education processes. Accordingly, three sub-questions have been formed in this study and the respective results have been discussed.

The first sub-question of the study includes the measurement and assessment methods used more frequently by the instructors providing distance education lectures. The most popular e-measurement tools preferred by the higher education instructors are the projects, e-portfolio and peer assessments. These results also match with the outcomes of the study performed by Balta and Türel (2013). The mentioned study by Balta and Türel claim that the performance assessments, authentic assessments, projects, portfolios, self-assessments, peer assessments and weekly assignments (including also the discussion assignments) should be used to make the online assessments more effective. The study conducted by Cabı (2016) demonstrated that the e-portfolios have been the most popular e-measurement and assessment tools preferred. Many alternative measurement and assessment methods are usable in the distance education; however, the portfolios are deemed to be the most popular since they have been converted to digital mode and accordingly inform the instructor much more clearly about the learning/teaching process. Adıgüzel (2020) has spotted that the self/peer-assessments and the individual development files have been the least popular e-measurement and assessment methods preferred by the teachers.

The second sub-question of the study focuses on the e-measurement and assessment problems faced by the instructors in distance education. The first of such problems is understood as the more time-consuming nature of e-measurement and assessment methods. In fact, instructors do not view the e-measurement and assessment process as a burden; instead, they consider it as an alternative method for measurement and assessment. Erdal and Halat (2009) claim that e-measurement and assessment methods increase the working burden of the teachers. The rationale for that has been explained as that process evaluations are harder than the result evaluations (scoring). To the contrary, one can claim that e-measurement and assessment tools and learning management systems make such process evaluation stage easier. When we look from the student perspective, the lesser attendance to the digital forums, which is a preferred method, comes as a problem. Cabı (2016) has reached a conclusion that the forums and discussion groups had the ability to ensure the interaction between the student and the teacher; however, that, mostly not preferred by the students due to their text-based nature. Turan, Kıvrak and Öztürk (2022) state that a problem faced through the e-measurement and assessment process has been the objectivity. Pitt and Winstone (2018) claim that there have been obstacles which cause impacts on the objectivity of the self/peer-assessment processes. They claimed the reason of such obstacles as the students failing to adapt to the new measurement and assessment methods.

The third sub-question of the study concentrates on the needs of the higher education instructors with regard to the e-measurement and assessment methods. Gelbal and Kelecioğlu have performed a study that had described the the opinions of the teachers towards the measurement and assessment practices in the learning environments designed in line with the constructivist approach. The referenced study examined the opinions of the teachers in relation with the measurement and assessment tools, utilization levels of the methods, competence of the teachers in this area and the experienced problems. Considering the fact that the self-competency perceptions towards the complementary measurement and assessment methods are quite low compared to the self-competency perceptions towards the conventional measurement and assessment methods, the author of this study has seen that the teachers had been in need for trainings in relation with the measurement methods or measurement tool generation etc. titles. The distance education is the alternative for the face-to-face education as required by the conditions and terms of the present day, the priority should be given to increase the digital competencies of the teachers and their abilities to use the informatics technologies. The insufficient interest on the conduct of the measurement and assessment in distance education (Sahu,2020), inadeaquate trainings provided to the teachers, very small number of school teachers using the Web 2.0 tools for measurement and assessment purposes despite the general awareness of such a possibility all show that the teachers do/may not make sufficient use of the technology for the measurement and assessment purposes in the distance education. Besides, the strong need for the highly interactive and multiple-environments also show us the inadequacies being experienced in this area. The instructors not having the skills to use the Web 2.0 tools (Durak & Seferoğlu, 2017) or their low self-confidence perception about such skills may be listed as existing problems (Tatlı, Nas, Turan and Yaman, 2021). Tonbuloğlu (2017) has expressed the difficulty of assessing the education given under distance education since the distance education programs are constructed without any framework standard.

Ethical Declaration
The author declared that he/she complied with the Ethical Principles in the study.
Financing Declaration
The author declared that no financial support was received from any person, institution or organisation at any stage of the study.

5. References

Adıgüzel, A. (2020). Salgın sürecinde uzaktan eğitim ve öğrenci başarısınız değerlendirmeye ilişkin öğretmen görüşleri. *Millî Eğitim, 49*(1), 253-271.

Alıcı, D. (2011). *Öğrenci performansının değerlendirilmesinde kullanılan diğer ölçme araç ve yöntemleri.* Pegem Akademi.

Atılgan, H. (2019). *Doğru yanlış testleri.* Anı Yayıncılık.

Aydoğan-Yenmez, A., & Gökçe, S. (2021). Teachers' opinions on web 2.0 tools used for measurement and evaluation purposes in

distance education. *Hasan Ali Yücel Eğitim Fakültesi Dergisi, 18*(2).

Balta, Y., ve Türel, Y. K. (2013). Çevrimiçi uzaktan eğitimde kullanılan farklı ölçme değerlendirme yaklaşımlarına ilişkin bir inceleme. International *Periodical for the Languages, Literature and History of Turkish or Turkic, 8*(3), 37-45.

Baltacı, A. (2017). Nitel veri analizinde Miles-Huberman modeli. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 3*(1), 1-15.

Baltacı, A. (2018). Nitel araştırmalarda örnekleme yöntemleri ve örnek hacmi sorunsalı üzerine kavramsal bir inceleme. *Bitlis Eren Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 7*(1), 231–274.

Cabı, E. (2016). Uzaktan eğitimde e-değerlendirme üzerine öğrenci algıları. *Journal of Higher Education & Science, 6*(1), 94-101.

Çakan, M. (2011). *Eğitim sistemimizde yaygın olarak kullanılan test türleri.* Pegem Akademi.

Çelik, T. (2021). Web 2.0 araçları kullanımı yetkinliği ölçeği geliştirme çalışması. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi, 51*, 449-478.

Ciğdem, H., & Tan, S. (2014). Students' opinions on administering optional online quizzes in a two-year college Mathematics course. *Journal of Computer and Education Research, 2*(4), 51-73.

Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative*. Prentice Hall Upper Saddle River..

Denzin, N. K., & Lincoln, Y. S. (2008). *Introduction: The discipline and practice of qualitative research.*

Dietel, R. J., Herman, J. L., & Knuth, R. A. (1991). What does research say about assessment. *North Central Regional Educational Laboratory, 1,* 18.

Dündar, S., Candemir, Ö., Demiray, E., Kumtepe, E. G., Öztürk, S., Terlemez, M. S., ve Ulutak, İ. (2017). Anadolu Üniversitesi çalışanlarının açık ve uzaktan öğretime ilişkin tutumları. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi, 3*(4), 187-227.

Durak, H., ve Seferoğlu, S. S. (2017). Öğretmenlerin teknoloji kullanım yeterliklerinde etkili olan faktörlerle ilgili bir inceleme. *The Turkish Online Journal of Educational Technology (TOJET). 29*, 537-556

Enfiyeci, T., ve Filiz, S. B. (2019). Uzaktan eğitim yüksek lisans öğrencilerinin topluluk hissinin çeşitli değişkenler açısından incelenmesi. *Tübav Bilim Dergisi, 12*(1), 20-32.

Erdal, E., ve Halat. H. (2009). Sınıf öğretmenlerinin matematik dersinde kullandıkları ölçme araçları ve ölçme araçları ile ilgili bilgi düzeyleri. *XVI Ulusal Eğitim Bilimleri Kongresi,* Gaziosmanpaşa Üniversitesi, Tokat.

Eyal, L. (2012). Digital assessment literacy. The core role of the teacher in a digital environment. *Journal of Educational Technology & Society, 15*(2), 37-49.

Eysenbach, G., & Köhler, C. (2002). How do consumers search for and appraise health information on the world wide web? Qualitative study using focus groups, usability tests, and in-depth interviews. *Bmj, 324*(7337), 573-577.

Forrester, M. A., & Sullivan, C. (2018). *Doing qualitative research in psychology: A practical guide*. Sage.

Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report, 8*(4), 597-606.

Güler, N., ve Gelbal, S. (2010). Açık uçlu matematik sorularının güvenirliğinin klasik test kuramı ve genellenebilirlik kuramına göre incelenmesi. *Kuram ve Uygulamada Eğitim Bilimleri, 10*(2), 991-1019.

Huba, M. E., & Freed, J.E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Allyn & Bacon.

İnesi, M. A. (2015). *Ortaokul öğretmenlerinin çağdaş ölçme ve değerlendirme süreçlerine yönelik bilgilerinin ve tutumlarının belirlenmesi Demirci İlçesi örneği.* [Unpublished master's thesis]. Celal Bayar Üniversitesi.

İşman, A. (2011). *Uzaktan eğitim*. Pegem Akademi.

Kara, M. (2019). *Eğitim ve öğretimle ilgili temel kavramlar*. Pegem Akademi Yayıncılık.

Kaya, Z. (2002). *Uzaktan eğitim*. Pegem Akademi.

Kılınç, H. (2022). Tartışma forumlarının açık ve uzaktan öğrenme ortamlarında kullanılabilirliği ve bir ölçme-değerlendirme kriteri olarak değerlendirilmesi. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi, 8*(1), 1-31.

Malterud, K. (2001). Qualitative research: Standards, challenges, and guidelines. *The Lancet, 358*(9280), 483-488.

Merriam, S. B., & Grenier, R. S. (2019). *Qualitative research in practice: Examples for discussion and analysis.* Jossey-Bass Publishers.

Neuman, W. L., & Robson, K. (2014). *Basics of social research.* Pearson.

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. SAGE Publications.

Pekcan, N., ve Toraman, Ç. (2022). Covid-19 pandemisinde çevrimiçi ölçme ve değerlendirme uygulamalarının öğretmen-öğrenci görüşlerine göre incelenmesi. *Erzincan Üniversitesi Eğitim Fakültesi Dergisi, 24*(1), 120-129.

Pitt, E., & N. Winstone (2018). The impact of anonymous marking on students' perceptions of fairness, feedback and relationships with lecturers. *Assessment & Evaluation in Higher Education, 43*(7), 183–1193.

Puspitasari, K. A. (2010). *Student assessment.* Asian Distance Education. SAGE.

Robles, M., & Braathen, S. (2002). Online assessment techniques. *Delta Pi Epsilon Journal, 44*(1), 39-49.

Sahu, P. (2020). Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus Journal of Medical Science, 12*(4).

Sandelowski, M. (1986). The problem of rigor in qualitative research. *Advances in nursing science, 8*(3), 27-37.

Sarı, H. İ. (2020). Evde kal döneminde uzaktan eğitim: ölçme ve değerlendirmeyi neden karantinaya almamalıyız? *Uluslararası Eğitim Araştırmacıları Dergisi, 3*(1), 121-128.

Sarı, T., ve Nayır, F. (2020). Pandemi dönemi eğitim: sorunlar ve fırsatlar. *Turkish Studies, 15*(4), 959- 975.

Seggie, F. N., & Bayyurt, Y. (2015). *Nitel araştırma.* Anı yayıncılık.

Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences.* Teachers college press.

Simonson, M., Smaldino, S., Zvacek, S. M., & Albright, M. (2019). *Teaching and learning at a distance: Foundations of distance education.* Information Age.

Şimşek, H., ve Yıldırım, A. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri*. Seçkin Yayıncılık.

Solmaz, O. (2021). Educational technology research trends in Turkey: Investigating graduate theses in English language teaching. *Journal of Computer and Education Research, 9*(17), 102-124.

Tatlı, Z., Nas, S. E., Turan, Ş., ve Yaman, H. (2021). Sınıf öğretmenlerinin acil uzaktan eğitim sürecinde ölçme-değerlendirme ihtiyaçlarının tespiti. *Inonu University Journal of the Faculty of Education, 22*(2).

Tomas, C., Borg, M., & McNeil, J. (2015). E-assessment: Institutional development strategies and the assessment life cycle. *British Journal of Educational Technology, 46*(3), 588-596.

Tonbuloğlu, B. (2017). Uzaktan eğitim programlarının paydaş görüşlerine göre değerlendirilmesi. [Unpublished doctoral thesis]. Yıldız Teknik Üniversitesi.

Tonga, E. S. (2023). Uzaktan eğitimde etkileşim ve değerlendirme sürecine yönelik öneriler: bir delphi çalışması. [Unpublished doctoral thesis]. Gazi Üniversitesi.

Titchen, A., & Hobson, D. (2005). *Phenomenology*. *Research methods in the social sciences*. Sage Publications.

Yurdakul, B. (2020). *Uzaktan eğitim.* Pegem Akademi Yayıncılık.