

Examining the Change in the Resource System of a Faculty Member who switched to Distance Education due to the Covid pandemic*

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Abstract:

The aim of this study is to reveal the experiences of a faculty member who has switched to distance education during the pandemic process. In this context, the answer to the question "Which resources did the lecturer start to use in the distance education process, how did he make changes in the use of which resources, which resources did he stop using ?"

has been sought. The case study design was used in the study. The research was carried out with one participant in order to make an in-depth and process-oriented analysis. Data were collected through video and audio recordings, online lecture video recordings, semi-structured interviews, observation and researcher notes. Content analysis was used in the research. As a result of the research, it was revealed that during the online education process, the participant started to use numerical subjects and problem solutions on the graphic tablet, stopped using the Whiteboard, instead he prepared lecture notes with PowerPoint and added additional time to the course hours.

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Introduction

Distance education is a learning system in which information is presented to individuals who are far from each other, with technological tools and applications. In addition, this system provides flexibility of time and space, communication and interaction (Karaman and Kurşun, 2020). In order for the learning process to be effective and efficient in distance education environments, meeting the social interaction and psychological trust needs of the learners is important for the learning process to be effective and efficient. One of the most powerful distance education applications where social interaction is provided in these environments is live classrooms. All kinds of tools and equipment that teachers use while preparing learning environments gain importance in the learning process. Considering these tools, course books are undoubtedly the most used by teachers. However, when studies are examined, it is seen that teachers use not only these books but also supplementary materials in their lessons (Gökçek & Karadeniz, 2013; Altun, Yazgan & Arslan, 2004). Therefore, it is important to examine teachers' resource use and document creation processes. The starting point of this study is the question of how teachers organize the resources that they use while structuring the lessons prepare for their students. The theoretical approach of "documentary approach to didactics" put forward by Gueudet and Trouche, which allows to examine the factors affecting teaching in terms of documents, draws attention (Gueudet and Trouche, 2009). In this research, the course document preparation processes of the teachers are examined, the "documentary approach to didactics", and the schemas that emerge the factors affecting the process investigated. In the research, the importance of the documentary approach in the distance education process is emphasized by the different course documents, the preparation process of the documents, teaching methods and techniques and the way that resources are used. Good teaching requires the teacher to have knowledge about students and their cultural and social environment (Ball & Mc Diarmid, 1990). Teachers who want to engage their students in a useful discussion are expected to have deep knowledge about the subject (Fernandez, 2005). However, for an effective teaching, it is also necessary to have knowledge that will

increase the learning of students (Ball et al, 2008; Fernandez, 2005). According to Ball and Forzani (2009), an instruction aimed at student learning includes skills such as conducting discussions on problems and student answers, listening to the student, evaluating, giving explanations, and creating the most appropriate environment for learning.

I. Status of the problem

In the second half of 2019, due to the COVID-19 epidemic, face-to-face education was completely or partially terminated in many countries around the world, and compulsory distance education was introduced all levels of education. It is becoming the only application used in education during the pandemic period, which is used as a complement or alternative to face-to-face education. In this case, faculty members are faced with both similar and different problems like students. Faculty members who are caught unprepared can find themselves in a different system without any training or time, and it becomes a problem for them how to deal with online education and how to continue this process. The difficulties of student supervision in measurement and evaluation, the inadequacies of both students and faculty members in information technologies, the preparation of course programs suitable for online learning, the scarcity of distance education materials, the inexperience in online teaching, the lack of internet infrastructure in schools, the inadequacy of universities in distance education are among these problems.

II. The importance of the problem

Distance education is a system where students and teachers are not face to face and separate from each other. The lines of this separation are generally defined as time and space in many sources. Face-to-face learning is a system where students and teachers can see each other. Although face-to-face education and distance education aim at the same goal but there are differences between them. It is expected that the research findings will help future possible or compulsory distance education applications in terms of teaching techniques, methods and resources and how to use them, and reach suggestions that will shed light on more effective applications.

III. Aim

The aim of this study is to reveal the experiences of a faculty member who has switched to distance education during the pandemic process and the document creation. In this context, "Which resources did the lecturer start to use in the distance education process, how did he make changes in the use of which resources, which resources did he stop using?" The answer to these questions has been sought.

IV. Method

The case study design, one of the qualitative research designs, was used in the study. The participant's document creation process was examined, and its experiences in the document creation process were analyzed using content analysis.

V. Research Pattern

This study is a case study in terms of examining the views of a faculty member who switched to distance education due to the Covid pandemic about the document creation process.

VI. Participant

The research was carried out with one participant in order to make an in-depth and process-oriented analysis. The participant was selected by the purposeful sampling method, and the criteria were used to conduct online training for the first time in the profession, to be open to sharing their work, to be willing and voluntarily to participate in the research. In this research, a 36-year-old faculty member who has been working as an Associate Professor for 5 years in the engineering faculty of a state university in Turkey was selected.

VII. Data collection tools and process

Data were collected through video and audio recordings, online lecture video recordings, semi-structured interviews, observation and researcher notes. A first interview was made with the participant, who was observed during the two training periods, and the purpose of the study and the path followed were explained. The participant was asked to prepare a lesson plan during the process, and a video

recording of this lesson was taken and a semi-structured interview was held in relation to the prepared plan. Before analyzing the data obtained, the notes that the researcher took during the observation, the transcripts of the lectures and the observations and the interviews were extracted. Open-ended questions in the semi-structured interview and expert opinions on the data obtained at the end of the application were consulted.

VIII. Analysis of data

In the research, the originality of the data was preserved and direct quotations from the views of the participant were used, without revealing the identity of the participant. Content analysis, one of the qualitative analysis methods, was used in the research. Codes were created from the obtained transcripts and gathered under categories and similar categories under the same theme. Therefore, from the themes obtained, the way the participant followed in the process of creating documents in online education during the pandemic period, the difficulties he experienced and solution suggestions were revealed.

IX. Results

The codes for the sub-problems given below are “Which resources did the lecturer start to use during the distance education process, how did he make changes in the use of which resources, which resources did he stop using?” And “For what reasons and how does the lecturer make changes in distance education lesson plans compared to face-to-face education?” obtained from the documents related to the questions.

- Numerical issues and problem solutions have been started on the graphic tablet.
- not use whiteboard
- Lecture notes in power point format (sample question solutions previously made on the board have been added to the lecture notes in slide form)
- Extra time has been added to the course duration

A theme as "Course resources and plans" was determined for the data regarding the views of the lecturer and the sub-problem question.

- Resources that have been used

- Discontinued resources
- Changed resources
- Changes to lesson plans

The above four categories were created. Themes, categories and codes are shown in **Table 01**. In **Figures 01** and **02**, numerical problem presentation and solution during the live lesson and the student making a presentation are shown, respectively.

Table 01: Themes, categories and codes.

Theme	Categories	Codes
Lesson resources and plans	Resources that have been used	- Numerical issues and problem solutions made on a graphic tablet
	Discontinued resources	- Whiteboard
	Changed resources	- Lecture notes in Powerpoint format (sample question solutions previously made on the board have been added to the lecture notes in slide form)
	Changes to lesson plans	- Additional time added to the course time

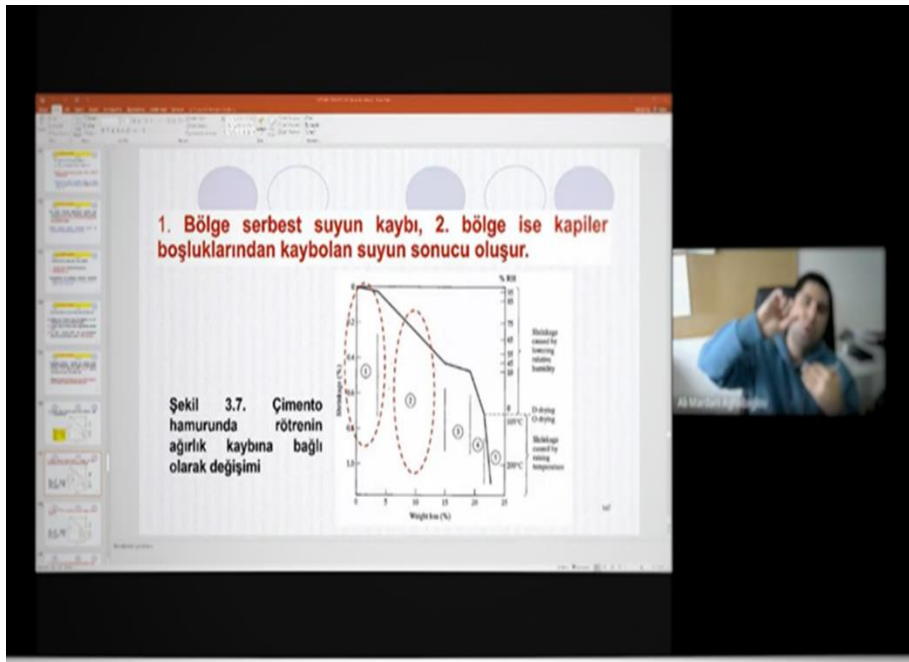


Figure 01: Numerical problem explanation and solution.

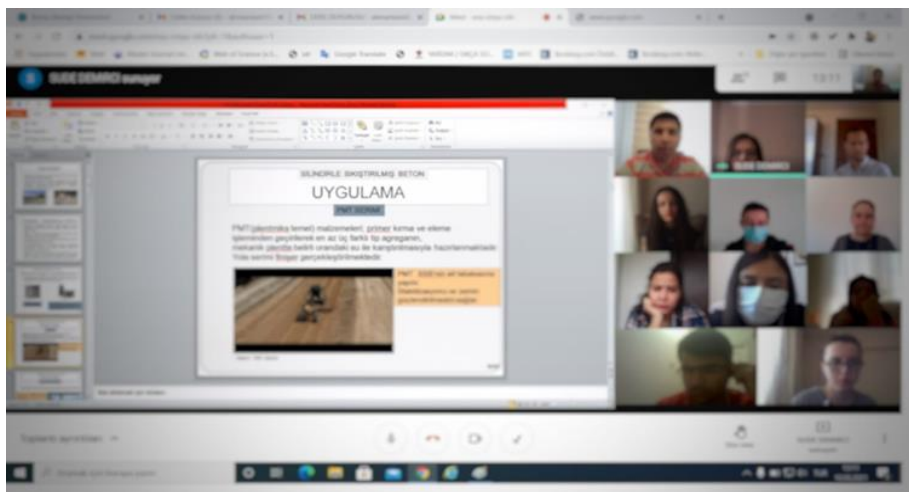


Figure 02 : student presentation.

The views of the lecturer regarding this situation are given below;
“I prepare the lecture notes for the lessons I gave during the face-to-face education process in power point format from book sources. For

this reason, I did not make any changes in the lecture notes I used during the online education process, I just convert the sample questions I solved on the board in face-to-face education into power point format and transfer them to the student in the computer environment and solve sample questions on the graphic tablet with the student during the lesson so that the student can learn the numerical subjects fully. Considering that the subjects in distance education are a little more difficult to learn by the student than face-to-face education, I add 20 minutes of extra time to the lesson every week as much as possible so that the quality of education does not decrease. I did not make any changes in the content and lesson plan of the lessons I taught with the extra methods I added during the online education process.”

X. Conclusion

As a result of the research, it was revealed that during the online education process, the participant started to realize numerical subjects and problem solutions on the graphic tablet, stopped using the Whiteboard completely, instead he prepared lecture notes with Power Point and added additional time to the course hours. The answers and features of the questions asked by the lecturer about the examination of the Document Creation Process during the Distance Education period overlap with the literature.

In the study of Özdoğan and Berkant (2020), the disadvantages of the participants in education are loss of motivation, lack of measurement and evaluation, inadequacy of resources such as internet and computer, inequality of opportunity in education, lack of communication and interaction, technical problems, inadequacy of socialization and unpreparedness for the distance education process. indicated that they were related.

As a result of their research, Barış and Çankaya (2016) shared the results of technological failures, reduced interaction, decreased motivation, inability to apply, lack of equipment, alienation from social life and difficulty in control as the weaknesses of distance education.

As a result of the research carried out by Özköse et al. (2013), while the interaction is the strength, it is stated as the weakness in this study. It can be said that this difference is due to the different perspectives of the instructors on interaction.

XI. Suggestions

In the light of the results of the research, more comprehensive research can be carried out by using mixed research methods obtained from the experiences and opinions of the faculty members on distance education, and quantitative and qualitative data collection tools, in order to better understand the situation of the instructors in future studies and to make more detailed examinations.

Supporting the teaching staff with in-service training and making the necessary changes will also increase the quality of the education offered.

Comparative analyzes can be made by taking the opinions of students and instructors in studies with similar titles.

Similar studies can be conducted in different countries and comparisons between countries can be made. Thus, countries can benefit from the different experiences that other countries have.

This study was carried out with an academicians selected from Bursa Uludağ University. It is thought that similar studies to be conducted on a larger sample will yield richer data.

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