



Teachers' Views on Electronic Teacher Portfolio Preparation Process

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Abstract

The purpose of the study has been framed as exploring the views of the participants on the process of preparing an electronic teacher portfolio through peer coaching. The study was designed as a case study. The participants of the research consisted of 10 volunteer teachers who were graduate students in the field of Curriculum and Instruction at the level of master's degree. They developed a teacher portfolio within the scope of the research. The data were collected through the Pre-Questionnaire Form applied at the beginning of the study and the Post Questionnaire Form applied in the end. The data obtained from the questionnaire forms were analyzed by content analysis method. As a result, it was observed that portfolio development process through peer coaching contributed to teachers' professional development and reflection. Teachers stated the electronic portfolios were more functional than traditional portfolios. It was seen that they had difficulties in allocating time to portfolio work. It may also be suggested to conduct longer-term studies with a broader participation. In addition, the needs of teachers regarding time should also be considered, and fixed time arrangements should be made for such collaborative work in their timetables.

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Introduction

Professional learning community practices, considered as one of the ways to make teachers learn mutually from each other, have come to the forefront as an important opportunity to provide professional development for teachers. Under the professional learning community framework, different ways are used to create environments where teachers work, learn, try and share in order to develop and implement more effective teaching practices (Wray, 2007a). One of these ways mentioned above is teacher portfolios (Beck, Livne, & Bear, 2005; Diaz-Maggioli, 2004; Richards & Farrell, 2005). Therefore, it is important to examine the opportunities that portfolios provide in terms of professional development.

The teacher portfolio can be defined as a structured collection of works of a teacher that provides information on different aspects of his/her work and that demonstrates their competence as well as development (Richards & Farrell, 2005; Tucker et al., 2002). According to Zepeda (2017), the portfolio preparation is a process that contributes to the professional development of the teacher through developing of skills such as reflection, feedback and goal setting, and records professional development chronologically. This process provides a basis for facilitating and reviewing professional development (Richards & Farrell, 2005; Tucker et al., 2002). Therefore, educators have utilized the teacher portfolio systematically over the past two decades to provide evidence for professional development (Diaz-Maggioli, 2004). The increasing importance of teacher portfolios in the process has brought about the differentiation of portfolios.

In line with the technological developments, it has been witnessed that the portfolio structure has evolved from the traditional/printed portfolio to the form of electronic portfolio. "An electronic portfolio can be considered as a digital container that can store visual and audio content, including text, images, video and audio" (Abrami & Barrett, 2005, p. 2). Moreover, it has advantages over printed forms due to features such as ease of access, independence from time and place, easy updating, fluidity of transfer and storage of materials (Ledoux & McHenry, 2006; Totter & Wyss, 2019). Although structuring is a bit more difficult and time-consuming than traditional portfolios, electronic portfolios enable teachers to understand their professions better and improve their reflective and digital literacy skills (Bokiev et al., 2017); help them make connections between portfolio sections more easily and to draw a more detailed teacher profile with its structure that allows adding photos and videos (Wray, 2007b). The fact that it has been heavily involved in both pre-service and in-service teacher development studies in recent years can also be attributed to its mentioned strengths (Aras, 2021; Harun et al., 2020; Kilbane & Milman, 2017; Kloser et al., 2021; Vorotnykova & Zakhar, 2021). It can be said that portfolios will continue to be used in the professional development of teachers in the coming years due to their stated strengths.

On the other hand, portfolios, whether prepared in a traditional or electronic way, are complex structures, and the preparation of a portfolio is complicated and time consuming. In this process, being in a communication process about the goals of their portfolios and using collaborative participation forms to develop a successful portfolio will be useful for professional development of teachers (Wray, 2007a). Richert (1990) states that discussions with a colleague enduring the portfolio preparation process facilitate the structuring of reflections regarding teaching, while Zepeda (2017) emphasizes that portfolio preparation is an interactive

process and underlines the fact that ideally it would be better to work with a colleague or a supervisor. In the studies that highlight working-together approaches (teamwork, coaching, mentoring, peer assessment) (Kato, 2018; Sung et al., 2009; Wray, 2007a) enables teachers to move from a passive role to a truly collaborative one. Also, this collaborative approach contributes the professional development in a positive way.

In the light of the descriptions mentioned above, peer coaching, as well, can be considered as one of the ways to make this contribution. "Coaching is a way that provides two people with a continuous dialogue by focusing on developing the skills, techniques and behaviors that lead to professional and personal success" (Barkley & Bianco, 2010, p. 39). Many different types of coaching—technical coaching, challenge coaching, instructional coaching, team coaching, cognitive coaching, peer coaching, collegial coaching—are mentioned in the literature (Fogarty & Pete, 2007; Richards & Farrell, 2005; Showers & Joyce, 1996). "In this study peer coaching, whose main purpose is to improve teaching practices, increase professional dialogue, and help teachers think deeply about their work, taken into consideration" (Garmston, 1987, p. 20). What can be stated regarding peer coaching is that it aims to support the personal and professional development of teachers who have similar experiences, reducing their social isolation and providing them with the opportunity to reflect through personal dialogues. "In the coaching process, colleagues plan a series of opportunities to explore teaching activities collaboratively. During and after the process, the coach provides feedback to the teacher and a positive contribution to the professional development is provided through mutual interaction" (Richards & Farrell, 2005, p. 143). In this context, the present study focuses on the process of preparing an electronic teacher portfolio through peer coaching. It is considered that process of preparing professional portfolios in a coaching relationship with another teacher who has a similar experience when they have problems in the portfolio development process, situations that they have difficulty making decisions, or issues that they want to discuss will enrich the process. Both approaches come to the fore as ways of practice aiming to improve the teacher with the teacher within the framework of the professional learning community. When the literature is examined, it is seen that, the studies that examine the role of electronic and traditional portfolios as a reflection tool (Aras, 2021; Ayan & Seferoğlu, 2011; de Jager, 2019; Öner & Adadan, 2013; Pennington, 2011; Yao et al., 2009); its impact of teachers on their learning (Harun et al., 2020; Kilbane & Milman, 2017; Vorotnykova & Zakhar, 2021); their opinions or perceptions towards the portfolio preparation process (Huff, 2006; Samuels, 2006) shed light on the field and offer suggestions for the more effective use of teacher portfolios in professional development. In addition, it is emphasized that studies on portfolios are mostly carried out on pre-service teachers (Hazar, 2020) and considering the limited number of studies, it can be concluded that there is a need for more research on electronic portfolios and on-duty teachers (Kilbane & Milman, 2017). Furthermore, the emphasis that the collaborative process of preparing a teacher portfolio will create a more qualified environment in terms of professional development by providing an environment of sharing and discussion (Kloser et al., 2021; Richert, 1990; Wray, 2007a; Zepeda, 2017) can be considered as an indicator of the need for such studies.

The above-mentioned opinions were acknowledged as an indicator that signifies the need for studies on teachers which highlight the collaborative learning culture in line with the understanding of the professional learning community. The main purpose of the study has been framed as exploring the views of the participants on the process of preparing an

electronic teacher portfolio through peer coaching. For this purpose, answers to the following research problems were sought:

1. What are the teachers' views on the electronic portfolio preparation process?
2. What are the teachers' views on the process of preparing the teacher portfolio with peer coaching?

Method

Research Design

In the present study, exploring the views of the participants on the process of preparing an electronic teacher portfolio through peer coaching is aimed. Therefore, the case study, which is one of the qualitative research designs, was applied. "The case study is a type of study where a single individual, group or significant example is studied extensively and meticulously, various data are collected and used to formulate interpretations applicable or peculiar to a specific situation" (Fraenkel et al., 2012, p. 13). In the study, the portfolio preparation process carried out within the scope of a graduate's course on the professional development of teachers was explored. Within the scope of the course, a ten-hour teaching process was allotted to the topics of professional learning community, peer coaching and teacher portfolio. The teaching process was carried out within the framework of sharing and discussing the presentation prepared on the subject and reading the articles on the subject. The class was then divided into groups of two for peer coaching practice. Preliminary information was given to the participants regarding the titles which were expected to be in the teacher portfolio and the other issues to be given utmost importance in the process by sharing the guide prepared for the process of preparing an electronic teacher portfolio. In this process, using the PowerPoint program as an electronic portfolio preparation tool means was agreed as the collective decision of the group. Afterwards, the stage of portfolio preparation was initiated. This phase lasted for eight weeks, and peer-coaching groups of teachers came together online every week or every two weeks. They shared information regarding their portfolios. Further, they supported each other in terms of the problems with their portfolios, the documents they would put in the portfolio, and the progress they made. The process was concluded with the presentation of the prepared portfolios to the group. As a result, the electronic portfolio preparation process of a group consisting of teachers was treated as a case study and it was aimed to analyse and interpret the views of teachers in details.

Participants

Purposive sampling method was applied in the study. In this method, researchers make use of their judgments to select a sample that they believe will provide the data they need based on previous knowledge and that addresses the specific purpose of the research (Fraenkel et al., 2012). The rationale and strength of purposive sampling comes from its emphasis on a deep understanding. This emphasis leads to the selection of situations rich in information for the depth of the study (Patton, 2014). In the study, the typical sampling strategy based on the purposive sampling method, developed by Patton (2014), was applied. According to Fraenkel et al. (2021) a typical sample, one that is considered or judged to be typical or representative of that which is being studied. In this context, the participants of the research consisted of 10 volunteer teachers who were graduate students in the field of Curriculum and Instruction at

the level of master's degree in the academic year 2020-2021 and who prepared a teacher portfolio within the scope of a course they had. Participants completed and signed the 'Informed Voluntary Consent Form'. In addition, necessary permissions from the Social and Human Sciences Research and Publication Ethics Committee of the university where the study was conducted were obtained with the official letter dated 16.02.2021 and numbered E-60750483-050.01.03-4845. Demographic characteristics of the participants are presented in Table 1.

Table 1

The Characteristics of the Participants

<i>Participant</i>	<i>Gender</i>	<i>Age</i>	<i>Experience (Year)</i>	<i>Teaching Field</i>	<i>Education Level</i>
T1	Female	29	4	Mathematics	Undergraduate
T2	Male	29	4	Turkish language and literature	Undergraduate
T3	Female	29	6	Pre-School	Undergraduate
T4	Female	22	1	English	Undergraduate
T5	Female	25	3	Visual arts	Undergraduate
T6	Male	31	10	Turkish language and literature	Undergraduate
T7	Male	31	12	Mathematics	Undergraduate
T8	Male	42	16	Music	Undergraduate
T9	Female	32	10	Turkish language and literature	Undergraduate
T10	Male	35	9	Chemistry	Undergraduate

As seen in Table 1, five of the participants were female and five were male. Participants who teach in different fields have an undergraduate degree. The participants have not prepared a teacher portfolio before. Only one participant stated that she created an electronic portfolio for her visual products as she is a Visual Arts teacher.

Data Collection Process

The data were collected via the pre-questionnaire form applied at the beginning of the study and the post questionnaire form applied at the end of the study. While preparing the forms, a question pool was formed after examining the electronic portfolio and peer coaching literature. The questions were analysed several times and organized under categories within the framework of the purpose of the research and the relevant literature. Afterwards, it was presented to the opinion of an expert working in the field of curriculum and instruction who also has publications on qualitative research and portfolio development and within the scope of the pilot application a teacher who was not in the study group was asked to examine the forms. The teacher stated that she/he could easily answer all the questions. Then the forms were sent to the participants via e-mail; the answers were received in a written form. The features of the pre-questionnaire form and the post questionnaire form are as follows:

Pre-Questionnaire Form

This form was prepared by the researchers in the light of the related literature. Through the form, it was aimed to collect the expectations and thoughts of the participants about the process of preparing a teacher portfolio in an electronic environment. The form consisted of three questions belonging to two categories: "teachers' views on the electronic portfolio preparation process" and "teachers' views on the process of preparing the teacher portfolio with peer coaching". At the beginning of the form, there was a section reserved for the personal information of the participants. In the section, the participants were asked to write a code name representing themselves. Further, questions regarding the gender, age, experience, teaching field and the education levels of the participants were also included in this section.

Post Questionnaire Form

This form, which was administered to the participants at the end of the application, enabled them to express their experiences and thoughts regarding the teacher portfolio preparation process. It consisted of nine questions under the title of two categories: "teachers' views on the electronic portfolio preparation process" and "teachers' views on the process of preparing the teacher portfolio with peer coaching"

Data Analysis

In the research, the data gained from the questionnaire forms were analysed through the method of content analysis. The main purpose of the content analysis method is to reach concepts and relationships which can explain the collected data. For this purpose, in the first place it is necessary to conceptualize the collected data, then to organize it in a logical way in accordance with the concepts that have emerged and to determine the themes that explain the data accordingly (Yıldırım & Şimşek, 2013). Likewise, in the present study, the data obtained from the questionnaire forms were analysed independently and separately by both researchers twice, and the answers given by the participants were entirely input into the Excel Program. Codes were generated based on the obtained data. Afterwards, the researchers came together and examined the codes which were produced. At this stage, it was evaluated that the codes created were compatible with each other, some code names that were found to be long or had the same meaning were revised in order to provide clearer expressions and rearranged in the light of the related literature. Following the arrangement of the codes, the two researchers gathered the codes that were related to each other under themes based on the questions in the data collection form. Thus, it was ensured that the data had an organized and systematic structure. The researchers tried to define and interpret the data in relation to each other by adhering to the specified codes and themes to provide more detailed explanations in the process of interpreting the data. Code, category and theme examples of the data are presented in Table 2.

Table 2*Sample Data Analysis Process*

<i>Raw Data</i>	<i>Codes</i>	<i>Categories</i>	<i>Themes</i>
T4: While preparing portfolio, I had experiences parallel to my initial thoughts about my own teaching. It was an eye-opening study in terms of seeing how I did what I did, evaluating myself, criticizing and improving myself	Seeing strengths and limitations Mirror yourself	Making self-assessment	Benefits of preparing a teacher portfolio
T2: The feedback I got was mostly positive. In this respect, I did not make any significant changes to my portfolio. I can say that I received more psychological support, especially that I did not feel alone in the process	Psychological support Disappearance of loneliness	Improvement in their psychological well-being	Thoughts about the feedback
T7: Thanks to the colleague coaching application in the teacher portfolio, I had the opportunity to help my friend. Thus, for the first time, I had the opportunity to evaluate our own teaching practices with a colleague	Collaboration skill Social awareness Peer assessment	Peer guidance	Benefits of preparing a teacher portfolio

Validity and Reliability Studies

Taking the necessary precautions to reach the right information (validity) and defining the research process and data in a clear and detailed way (reliability) are important in qualitative research (Yıldırım & Şimşek, 2013). Within the framework of the concepts (credibility, transferability, consistency, confirmability) explained by Yıldırım and Şimşek (2013), some precautions were taken to ensure the validity and reliability of the research. First, a long-term interaction with the participants for approximately one semester was provided for credibility. The results obtained were constantly compared, interpreted and conceptualized by both researchers. For this, the researchers came together after creating the codes independently and discussed the conflicting codes and came to a decision on common codes in line with the relevant literature. In addition, the generated codes and themes were re-examined two weeks later and the researchers evaluated the codes and themes in the same way. Researchers evaluated explicit and implicit content together in the data analysis process. The answer given by each participant about the implicit content was analyzed several times in a holistic way and the underlying meaning was tried to be reached. In this way, the establishment of deeper ties between the data and the themes were supported. In addition, it was ensured that the data and the results obtained were examined by interviewing an academician who is an expert in qualitative research. For credibility, the participants were also interviewed individually and their opinions on the accuracy of the collected data were taken. Secondly, the data obtained for transferability were described in detail and rearranged according to codes, categories and themes. In this context, direct quotations were also used. In addition, in the selection of the participants, both general and private information were tried to be revealed by using the purposeful sampling method. Thirdly, for consistency, besides the researchers, the qualitative researcher also examined whether the data were collected in similar processes, the consistency

of the conceptualization approach in the coding process of the data, and the establishment of the relationship of the data with the results. Fourth, for confirmability, the data collection tools used in the research, the raw data, the coding made during the analysis phase were archived by the researchers, and the results reached by both the researchers and the qualitative research specialist were constantly confirmed with the data.

Results

The findings of the research are presented in two parts within the scope of research questions. In the first part, "teachers' views on the electronic portfolio preparation process", in the second part, "teachers' views on the process of preparing the teacher portfolio with peer coaching" are given. Findings for each research problem were reported by determining the questions in the data collection form as the themes. Direct quotations related to each theme are given under themes.

Results Regarding the Teachers' Views on the Electronic Portfolio Preparation Process

There are five themes in this section. The themes are "benefits of preparing a teacher portfolio", "challenges of preparing a teacher portfolio", "skills developed by the portfolio preparation process", "thoughts on portfolio presenting process" and "advantages and disadvantages of electronic portfolio".

Benefits of Preparing a Teacher Portfolio

Table 3 presents the findings of benefits of preparing a teacher portfolio within the scope of the analysis of the data obtained from the pre and post questionnaire implementation.

Table 3

Benefits of Preparing a Teacher Portfolio

<i>Theme</i>	<i>Categories</i>	<i>Pre- Questionnaire (f)</i>	<i>Post Questionnaire (f)</i>
Benefits of preparing a teacher portfolio	Directing professional development	6	4
	Evaluating professional development	5	8
	Making self-assessment	5	-
	Opportunity for reflection	3	6
	Peer guidance	1	-
	Motivating professional development	1	4
	Documenting the professional development	-	4
	Planning future professional development	-	4

When Table 3 examined, before teachers prepare portfolios, it was observed that all the teachers focused on the contribution of the portfolios to their professional development and categorized this contribution under the heading as directing ($f = 6$), evaluating ($f = 5$) and motivating ($f = 1$) professional development. Teachers also emphasized that preparing a portfolio will provide making self-assessment ($f = 5$), opportunity for reflection ($f = 3$) and peer

guidance (f = 1). The state of a teacher who emphasized the evaluative effect of preparing a teacher portfolio on professional development can be given as an example.

Professional development is a collection of studies which enable the teacher to see his/her competences or weaknesses in subjects related to their field or in applied activities. I think that professional development is the type of work that enables me as a teacher to self-evaluate myself and how much information I can convey to my students, that is, it helps me to weigh myself. (T5)

After they prepared their portfolio, teachers still find the positive effect of the portfolio on their professional development important in terms of evaluating (f = 8), motivating (f = 4) and directing (f = 4) dimensions. Teachers also emphasized the usefulness of the portfolio as a reflection tool (f = 6). In addition, regarding the benefits of the portfolio, they also mentioned two new effects on professional development, documenting (f = 4) and planning (f = 4). The state of a teacher who emphasized the motivating and evaluative effect of the portfolio in professional development and its structure that provides reflection can be given as an example:

Developing a teacher portfolio can be considered as self-accountability or personal accountability and self-examination. However, this questioning is not a situation that makes you feel nervous or apprehensive, rather it has been a period of time that has increased my professional motivation for me. It has also been a period of time that has made me say I wish I had done earlier and look myself in the mirror with the taste of keeping a diary. Further, it has been a time during which, you get the motivation to improve and continue what you see by highlighting your positive aspect. (T10)

Challenges of Preparing a Teacher Portfolio

Table 4 presents the findings of challenges of preparing a teacher portfolio within the scope of the analysis of the data obtained from the pre and post questionnaire implementation.

Table 4

Challenges of Preparing a Teacher Portfolio

<i>Theme</i>	<i>Categories</i>	<i>Pre- Questionnaire (f)</i>	<i>Post Questionnaire (f)</i>
Challenges	Allocating time	3	9
	Finding necessary documents for portfolio	2	2
	Performing the reflection process	2	
	Organizing the portfolio	1	2
	Lack of knowledge about preparing a portfolio	-	7
	Lack of experience about preparing a portfolio	-	6

In Table 4, the frequencies of the categories related to challenges of the portfolio preparation process are given place in terms of pre and post questionnaire implementation. Before teachers prepare portfolios, they think they will face difficulties about allocating the time (f = 3), finding the necessary documents (f = 2), performing the reflection process (f = 2), organizing the portfolio (f = 1).

At the end of the study, the teachers, who prepared and presented their portfolios, stated difficulties in allocating time ($f = 9$), lack of knowledge ($f = 7$) and experience ($f = 6$) about preparing a portfolio, finding necessary documents ($f = 2$) and organizing the portfolio ($f = 2$) they found. A teacher's statement can be given as an example:

At first, I had difficulty in determining what criteria to use when determining the subheadings. I experienced the shortcoming of not specifying this earlier in my teaching model. I had a hard time getting it into shape and my inexperienced in prepaid it took my inexperienced time. Preparing a portfolio really takes time. Every time you say it must have happened and you look at it again, you go for a change by saying "this should be like this". You should really take a good time to create a responsive portfolio, think carefully and use your materials correctly; I learned this in the process. I think that the portfolio should not be left as it is but should be updated during the working process. (T9)

Skills Developed by Preparing a Teacher Portfolio

Table 5 presents the skills developed by teachers in preparing portfolios within the scope of the analysis of the data obtained from the post questionnaire implementation.

Table 5

Skills Developed by Preparing a Teacher Portfolio

<i>Theme</i>	<i>Categories</i>	<i>Post Questionnaire (f)</i>
Skills	Self-assessment	10
	Reflection	9
	Coaching	9
	Professional planning	2
	Technology use	2

Given in Table 5, the skills developed by teachers in preparing portfolios were expressed as follows: Self-assessment ($f = 10$), reflection ($f = 9$), coaching ($f = 9$), professional planning ($f = 2$) and technology use ($f = 2$) skills.

Thoughts on Portfolio Presenting Process

Teachers' thoughts on portfolio presenting process within the scope of the analysis of the data obtained from the post questionnaire implementation were given in Table 5.

Table 6

Thoughts on Portfolio Presenting Process

<i>Theme</i>	<i>Categories</i>	<i>Post Questionnaire (f)</i>
Thoughts of portfolio presenting process	Contributed to their acquisition of new learning	2
	Made them proud of their work	2
	To know their colleagues better	2
	Contributed to reflection process	2
	Made the whole portfolio process meaningful	1

When the answers given in Table 6 were examined, it was observed that all the teachers were contented to share their portfolios. They expressed portfolio presentations of their peers contributed to their acquisition of new learning (2), made them proud of their work (2), to know their colleagues better (2), contributed to reflection process (2). One teacher stated that the presentation made the whole portfolio process meaningful. A teacher's statement can be given as an example:

I felt that I got to know my friends better because I saw other characteristics besides their teacher identities. I think that the posts are presented in visuals and designs that emphasize which of our professional or other features we want to come to the fore. For this reason, I think that portfolios reflect how we want our professional and personal characteristics to be. I found the portfolios impressive as they reveal what we are affected by as teachers, where we are stuck, what are the events that left a mark on us, and how we evaluate all these from our own eyes, even though we may not be aware of it. In this context, I must say that I enjoyed the presentations, which we can also consider as a psychological analysis, and I would like to see the continuation if possible. (T10)

Positive and Negative Features of Electronic Teacher Portfolio

At the end of the study, the teachers, who prepared and presented their portfolios, were asked to explain the positive and negative features of electronic portfolio development compared to the traditional way. Their answers are given in Table 7.

Table 7

Positive and Negative Features of Electronic Teacher Portfolio

<i>Theme</i>	<i>Categories</i>	<i>Positive</i>	<i>Negative</i>
		<i>Features</i>	<i>Features</i>
		<i>f</i>	<i>f</i>
Positive and negative features of electronic teacher portfolio	Ease of carrying, storing and updating	8	-
	Richness of design	3	-
	Ease of accessing electronic portfolio samples	1	-
	Ease of converting into a traditional portfolio	1	-
	Increase in their awareness the importance of developing technology competencies	1	-
	Use of online opportunities to exchange ideas	1	
	Not being able to carry as a written catalogue	-	1
	Inconvenience caused by the lack of prior knowledge about the technological environment	-	1
	Slowness in the technologies utilized	-	1
	Expensive costs of portfolio applications	-	1

When Table 7 was examined, it was observed that the teachers mentioned mostly the positive features of the electronic portfolio. These positive features were ease of carrying, storing and updating ($f = 8$), richness of design ($f = 3$), ease of accessing electronic portfolio samples ($f = 1$), ease of converting into a traditional portfolio when necessary ($f = 1$), increase in their awareness regarding the importance of developing technology competencies ($f = 1$)

and use of online opportunities to exchange ideas ($f = 1$). The opinion of a teacher emphasizing positive aspects is given below:

Thanks to the digital portfolio, I was able to edit and transfer the material I acquired, to make changes in the design and to edit the content in a very short period of time. When I decided to exchange ideas, it was enough only to share it online. (T4)

Among the limited number of negative features given in Table 6, it was stated that not being able to carry as a written catalogue ($f = 1$), inconvenience caused by the lack of prior knowledge about the technological environment ($f = 1$), slowness in the technologies utilized ($f = 1$) and having problems in accessing portfolio applications due to their costs ($f = 1$) could be listed. Each opinion stated regarding the negative features was expressed only once. However, teachers also stated that they did not regard the negative features they expressed very important. For instance, the teacher (T9) who expressed the view that "not being able to carry it as a written catalogue" indicated that "this is not a big handicap for me, the technology is already at a level that will not match this.

Results Regarding Teachers' Views on the Process of Preparing the Teacher Portfolio with Peer Coaching

There are two themes in this section. The themes are "benefits of peer coaching" and "thoughts about the feedback". Direct quotations related to each theme are given under themes.

Benefits of Peer Coaching

Table 8 presents the findings of benefits of preparing a teacher portfolio with peer coaching within the scope of the analysis of the data obtained from the pre and post questionnaire implementation.

Table 8

Benefits of Peer Coaching

<i>Theme</i>	<i>Categories</i>	<i>Pre- Questionnaire(f)</i>	<i>Post Questionnaire (f)</i>
Benefits of peer coaching	Sense of relief and reduced their anxiety	10	10
	Supportive effect	8	-
	Positive effect on their critical thinking skills	2	-
	The feeling of trust in colleagues	-	10
	Peer support	-	3
	Contributed positively to their professional development	-	6

Under this theme as explained in Table 8, before the teachers had prepared portfolio, all the teachers agreed on the fact that carrying out the process through peer coaching will give them a sense of relief and reduced their anxiety ($f = 10$). Further, they emphasized that peer coaching would have a supportive effect ($f = 8$). It was observed that the concepts of avoiding mistakes, motivating, being able to consult with ease and getting answers to their questions were used in explaining the supportive effect. In addition, they emphasized that this process would have

a positive effect on their critical thinking skills ($f = 2$). A teacher's statement is given as an example below:

The fact that we will guide each other by helping people with whom I meet on the common denominator will prevent me from making any mistakes such as misunderstanding or deviation from the right path in the portfolio process and working with my colleague will improve my critical thinking skills. (T4)

At the end of the portfolio preparation process, it was observed that the teachers emphasized the dimensions of trust in colleagues, sense of relief and reduced their anxiety and the dimension of contribution to professional development. The feeling of trust in colleagues ($f = 10$) was emphasized by all the participants. All of the teachers ($f = 10$) stated that thanks to this trust, their anxiety decreased, they relaxed and they felt better. In addition, teachers pointed out that, peer support increased ($f = 3$). Teachers also stated that colleague coaching contributed positively to their professional development ($f = 6$). An example excerpt is as follows:

It made me feel more comfortable. Knowing that I was not alone in a study that I was involved in for the first time made me feel comfortable. Having someone doing the same job as me, whom I could ask questions and share with whenever I wanted, made me work in a reassuring feeling. (T1)

Thoughts about the Feedback

At the end of the study, the teachers who prepared and presented their portfolios stated their thoughts about the feedback given by their peer coach. Their thoughts are given in Table 9.

Table 9

Thoughts About the Feedback

<i>Theme</i>	<i>Categories</i>	<i>Positive Features (f)</i>
Thoughts about the feedback	Contributed significantly to their professional development	6
	Use of technology	5
	Improvement in their psychological well-being	5
	Strengthened peer communication	4

When the answers given in Table 9 were examined, all the teachers stated that they found the feedback they received positive and that they gave importance to it. Teachers ($f = 6$) stated that the feedback they received contributed significantly to their professional development. Two of these teachers pointed out that the feedback received from their peer coach was effective in self-assessment, one of them in peer assessment, two of them in developing different perspectives in the structuring of the portfolio, two of them in planned study, one of them in changing the teaching philosophy, and finally one of them in producing original work. Teachers also stated that feedbacks supported them in the use of technology ($f = 5$), provided an improvement in their psychological well-being (5), strengthened peer communication ($f = 4$).

All the teachers emphasized that they made changes in their studies based on the feedback. These changes are exemplified as the type of documents to be included in the portfolio,

portfolio design, sorting the portfolio products, correcting grammatical errors, and supporting the study with quotes about education. A teacher's statement about feedback from a peer coach is as follows:

I was in a pretty good communication with my colleague coach. We often consulted with each other and exchanged ideas. I think I gave and received useful feedback. Thanks to the feedback, the change I put in there was at the point of design. When we presented the final version of the assignment to each other, I said that I was not sure about the shape and colour, and the colleague offered me several options from different programs, and I researched and created a new design. At this point I expressed my thanks to my colleague. I can truly say that I have undergone a quality collegial coaching process at every single point. (T3)

Discussion, Conclusion and Implications

Teacher portfolios direct teachers to make a comprehensive self-assessment on different aspects of their job. Working with a collegial in this process could be a beneficial factor for a more qualified development (Richards & Farrell, 2005). In this study, exploring the views of the participants on the process of preparing an electronic teacher portfolio through peer coaching is aimed. The results of the study are framed in two parts within the scope of research questions. In the first part, "teachers' views on the electronic portfolio preparation process" was examined.

Teachers indicated that teacher portfolios had a number of benefits and challenges. They emphasized that the teacher portfolio contributed to their professional development and enabled them to reflect. Similarly, many studies in the literature (Aras, 2021; Ayan & Seferoğlu, 2011; Beal, 2017; de Jager, 2019; Pennington, 2011; Pitts & Ruggirello, 2012; Taş & Cengizhan, 2013; Wray, 2007a) highlight professional development and reflection among the benefits of teacher portfolios. It can be stated that these two features feed each other in a reciprocal relationship. Milman and Kilbane (2005) also reached a similar finding in their study and when explaining the reason, they emphasized the chain relationship between reflection and professional development. According to them, development a portfolio naturally leads teachers to a reflection process by compelling them to critically analyse and think about their teaching practices. Reflecting also acts as a catalyst for professional development by enabling them to see and better understand the importance of their professional studies regarding development as teachers. At this point, it seems important that portfolios provide enough evidence to allow teachers in order to reflect over time and to see how their professional competencies have changed in terms of significant benefits in the aforementioned fields (Pitts & Ruggirello, 2012). It was also observed that teachers realized the benefits in the process, which they foresaw at the beginning of the study and in addition, it was seen that they encountered different benefits of the teacher portfolio. This is confirmed by the responses given by the teachers whereby benefits of planning and documenting professional development were added to the motivating, directing and evaluative effect stated in the pre-questionnaire forms.

There are also perceived challenges to the portfolio preparation process by teachers. All the participants stated that developing a portfolio is very time-consuming. They also have concerns about finding documents, performing the reflection process and organizing the portfolio.

When the literature is examined, it is seen that similar concepts are expressed. It has often been emphasized that portfolio development process is time-consuming (Atay, 2003; Avan & Şahin, 2020; Taş & Cengizhan, 2013; Wray, 2007a). Wray (2007a), in his overall evaluation of his research, states that the obligation to complete portfolios in a certain period of time, the uncertainties about the purpose and target group of the portfolio, and the lack of information regarding the content and organizational strategies specific to portfolio development have emerged as a matter. In fact, if anyone who is involved in the change process in schools were asked the question, "what is the most basic component of this process?", the first answer to be taken would be time. If change is to be achieved, the time for collaborative work for teachers would perhaps be more important aspect than all other components (Raywid, 1993).

Besides the benefits and challenges of portfolio preparation process, the skills developed by portfolio preparation is also important. Teachers mostly emphasized the skills of reflection, self-assessment and coaching. The positive effect of portfolio on reflection skills is frequently emphasized in the literature (de Jager, 2019; Pennington, 2011; Pitts & Ruggirello, 2012; Taş & Cengizhan, 2013; Wray, 2007b). Milmane and Kibane (2005) have also found in their studies that portfolio development process improves teachers' reflection skills and accordingly, it supports their self-evaluation and communication with their peers. "The portfolio process leads the teachers to a comprehensive self-assessment of different aspects of their work. By reviewing the portfolio, a teacher can make decisions about goals and areas for future development. This process will improve the cooperation between teachers" (Richards & Farrell, 2005, p. 99). It can be also stated that collaboration created a supportive and interactive environment that motivated participants to become more reflective. In this respect, it can be stated that the skills expressed by the teachers are in line with the literature. In addition, teachers emphasized the improving effect of presenting the portfolio and sharing it with their colleagues, as well as developing a portfolio. This finding was also evaluated as a result of the collaborative culture created with colleagues and interpreted as portfolio conversations have a positive effect on the development of teachers.

In this study, the teachers prepared electronic portfolios. "E-portfolios provide a comprehensive way to document personal progress, to reflect on work activities, to support learning and to serve as a tool for feedback and evaluation" (Totter & Wyss, 2019, p. 69). Teachers emphasized the ease of carrying, storing and updating stood out as the most positive feature of electronic portfolios. Teachers also stated expensive costs of portfolio applications. Ledoux and McHenry (2006) state that if the portfolio system is to be used constantly, then, it will be necessary to subscribe to current internet-based applications for storage, support and licensing, and this is a costly process. This situation makes us think that schools do not provide enough opportunities for teachers to access to such applications.

In the second part of the research, "teachers' views on the process of preparing the teacher portfolio with peer coaching" are examined. Teachers stated that carrying out the process through peer coaching relieved them and reduced their anxiety levels. They also expressed that peer coaching enabled the portfolio development process to be in a more positive atmosphere. It is known that coaching is an element that reduces stress in a teacher's life (Barkley & Bianco, 2010). At the end of the process, in addition to the opinions expressed at the beginning of the process, the teachers emphasized the dimensions of trust in colleagues and the dimension of contribution to professional development. In this context, it can be concluded that teachers

began to realize the benefits of peer coaching beyond portfolio development and to see the actual meaning of peer coaching. It is often emphasized in the literature that the first step in the coaching process is to build trust and that this is one of the ways to ensure professional development (Diaz-Maggioli, 2004; Farrell, 2005; Foord, 2009; Patti et al., 2012). Further, the literature (Kato, 2018; Sung et al., 2009; Taş & Cengizhan, 2013; Wray, 2007a) also points out the importance of collaborative forms of participation in the portfolio development process. Then, it would not be wrong to say that receiving peer support in the process of developing a teacher portfolio reduces teachers' anxiety in this process, contributes to a more qualified process and enables them to produce more successful products.

Teachers also found the feedback they received positive and that they paid attention to it. Similarly, Göker (2006); Pearce et al. (2019) emphasized that teachers are satisfied with the feedback they receive during the coaching processing their research. This finding is noteworthy, because feedback is an important component of the coaching process (Showers & Joyce, 1996). Teachers stated that the feedback they received supported them especially in terms of professional development, use of technology, psychological well-being and communication. Feedback is seen as an important component in making peer learning-based studies effective and productive (Thurlings & den Brok, 2018). It is stated that this component is also effective in the portfolio preparation process, and that teachers get information about the technical and visual aspects of their portfolios through feedback, share their professional knowledge, and tend to talk about their professional practices (Milman & Kilbane, 2005). Emphasizing the effect of feedback on professional development, as well as on teachers' communication and psychological well-being, demonstrate that feedback helps teachers flee from social isolation and feel emotionally good. Upon considering that the prominent feature of a coaching relationship is that two people work together in a collaborative and trust-based environment (Barkley & Bianco, 2010), teachers' emphasis on psychological well-being becomes even more meaningful. Teachers' meaningful emphasis on peer coaching and the feedback they receive from their coaches show once more how important it is to organize the arranged and fixed times for teachers to come together and cooperate in the development of collaborative cultures. Since allotting a specific time is usually a problem (Many, 2009), it is thought that it would be useful to underline the importance of this dimension once more.

The results of this study underline the impact of developing and presenting electronic portfolios on professional development, they also highlight the opportunities offered to teachers through conducting the electronic portfolio development process via peer coaching. In this context, apart from the traditional teacher development ways, with this result, the research also emphasizes the importance of professional learning community practices that focus on the development of the teacher through cooperative dialogues with one another.

Based on the results of the research, the following suggestions can be made for practitioners, administrators, policy makers and researchers:

- In this study, teachers' opinions on teacher portfolios prepared through peer coaching within the scope of a course in a graduate program were examined. Regarding the portfolio development process, it can be stated that longer-term studies could reveal different results in real working conditions in the educational institutions where teachers are employed.

- Teachers stated that the feedback they received supported them especially in terms of professional development, use of technology, psychological well-being and communication. This finding is considered as an indicator that teachers need environments where they can receive feedback from colleagues in collaborative dialogue. It can be concluded that the evolution of group teachers' boards into learning communities by making them functional in schools can meet this need.
- It was observed that the most expressed difficulty was allocating time in the portfolio preparation process. The needs of teachers regarding time when they can make professional sharing should also be considered and fixed time arrangements should be made for such collaborative work in their timetables.
- Teachers emphasized the importance of colleague support. Except for the portfolio development process, research in which peer coaching is examined in depth will also contribute to the field.
- Providing professional development of teachers through both peer coaching and teacher portfolios can also be supported by the Ministry of National Education as a way of professional development. It is recommended to ensure the continuity of the path opened by the Ministry of National Education with the understanding of professional development communities with different development strategies.
- In addition, the results of the research have revealed that the process contributed significantly to the teachers' reflections. These reflections could not be examined in detail in the current study, though. It is thought that considering this factor in future studies will contribute to filling the gap in the field.
- The importance of distance education and technology use has increased due to the recent pandemic (COVID-19). In this context, considering that only the PowerPoint program was used in the current study, it can be said that the use of multiple application software in the electronic portfolio development process will be beneficial in the professional development of teachers and in transforming learning environments into a dynamic structure. In the study, teacher emphasized that they could not access internet-based applications for economic reasons, supporting the teachers in the use of technology by their institutions and increasing their opportunities to carry out an effective and productive process are thought to be significant.
- This research showed that portfolio can be a powerful instrument for professional development apart from the traditional teacher development ways. In the context of the professional learning community, it can be stated that examining portfolios through peer review during and at the end of the process will contribute to the evaluation of the qualities of portfolios from different perspectives. Finally, seminars that will introduce teachers to different teacher development strategies that center on the understanding of the professional learning community and research on these issues will provide an opportunity for both practitioners and researchers to rethink teacher professional development from a different perspective.

Author Contributions

The authors contributed equally to all phases of the study and confirm all responsibility for the study.

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TÜRKÇE GENİŞ ÖZET

Öğretmenlerin Elektronik Öğretmen Portfolyosu Hazırlama Sürecine İlişkin Görüşleri

Giriş

Öğretmen portfolyosu, öğretmenin çalışmasının farklı yönleri hakkında bilgi sağlayan; yeterliğini ve gelişimini gösteren eserlerin yapılandırılmış koleksiyonudur (Richards & Farrell, 2005; Tucker ve diğerleri., 2002) ve son yirmi yılda eğitimciler tarafından mesleki gelişime ilişkin kanıt sağlamak amacıyla sistematik olarak kullanılmaktadır (Diaz-Maggioli, 2004). Alan yazın incelendiğinde, özellikle elektronik portfolyo ve görev başındaki öğretmenlerin portfolyo hazırlama süreci hakkında daha fazla araştırma ihtiyacı olduğu görülmektedir (Kilbane & Milman, 2017).

Bu çalışmada öğretmenlerin portfolyo hazırlama sürecinde yaşadıkları problemler, karar vermekte zorlandıkları durumlar veya tartışmak istedikleri konular olduğunda paylaşımda bulunabilecekleri benzer deneyimi yaşayan bir öğretmenle koçluk ilişkisi içinde portfolyolarını hazırlamalarının süreci zenginleştireceği düşünülmüştür. Portfolyo hazırlama sürecinin işbirlikli gerçekleşmesinin paylaşım ve tartışma ortamı sağlayarak mesleki gelişim açısından nitelikli bir ortam oluşturacağına yönelik vurgular da (Richert, 1990; Wray, 2007a; Zepeda, 2017) bu tür çalışmalara ihtiyaç duyulduğunun göstergesi olabilir.

Çalışmanın temel amacı, öğretmenlerin meslektaş koçluğu yoluyla elektronik öğretmen portfolyosu hazırlama sürecine ilişkin görüşlerini belirlemektir. Bu temel amaç altında aşağıdaki problemlere yanıt aranmıştır:

1. Öğretmenlerin elektronik portfolyo hazırlama sürecine ilişkin görüşleri nelerdir?
2. Öğretmenlerin meslektaş koçluğu yoluyla portfolyo hazırlama sürecine ilişkin görüşleri nelerdir?

Yöntem

Çalışmada, portfolyo hazırlama sürecine ilişkin görüşlerin derinlemesine incelenmesi amacıyla nitel araştırma yöntemlerinden durum çalışması kullanılmıştır.

Katılımcılar, amaçlı örnekleme yöntemlerinden tipik örnekleme stratejisi ile belirlenmiştir. Bu bağlamda, Eğitim Programları ve Öğretim alanında yüksek lisans programına devam eden ve aldıkları bir ders kapsamında öğretmen portfolyosu hazırlayan gönüllü 10 öğretmen araştırmanın katılımcılarını oluşturmuştur. Katılımcılar "Bilgilendirilmiş Gönüllü Onam Formu"nu

imzalamışlardır. Çalışmanın yürütüldüğü üniversitenin Sosyal ve Beşerî Bilimler Araştırma ve Yayın Etiği Kurulu izni 16.02.2021 tarih ve E-60750483-050.01.03-4845 sayılı resmî yazıyla alınmıştır.

Veriler, araştırmacılar tarafından hazırlanan ve çalışmanın başında uygulanan Ön Anket Formu ve çalışmanın sonunda uygulanan Son Anket Formu ile toplanmış; içerik analizi yöntemiyle çözümlenmiştir. Verilerden yola çıkılarak kodlar üretilmiştir. İlişkili kodlar bir tema altında toplanmıştır. Araştırmanın geçerlik ve güvenilirliğini sağlamak için Yıldırım ve Şimşek'in (2013) açıkladığı kavramlar (inandırıcılık, aktarılabilirlik, tutarlık, teyit edilebilirlik) çerçevesinde, bazı önlemler alınmıştır. İnanırıcılık için katılımcılarla yaklaşık bir dönem boyunca uzun süreli etkileşim sağlanmıştır. Ulaşılan sonuçlar araştırmacılar tarafından sürekli olarak karşılaştırılmıştır. Açık ve örtük içerik birlikte değerlendirilmiş ve örtük içeriğin altında yatan anlama ulaşmaya çalışılmıştır. Nitel araştırma konusunda uzman bir akademisyen ile görüşülerek verilerin ve elde edilen sonuçların karşılaştırılması sağlanmıştır. Katılımcılarla görüşülerek verilerin doğruluğuna ilişkin görüşleri alınmıştır. Aktarılabilirlik için elde edilen veriler detaylı bir şekilde betimlenmiş ve kod, kategori ve temalara göre yeniden düzenlenmiştir. Bu bağlamda doğrudan alıntılara da yer verilmiştir. Katılımcıların seçiminde amaçlı örnekleme yöntemi kullanılarak hem genel hem de özel bilgiler ortaya konulmaya çalışılmıştır. Tutarlılık için araştırmacıların yanı sıra nitel araştırma uzmanı da verilerin benzer süreçlerde toplanıp toplanmadığını, kodlama sürecinde kavramsallaştırma yaklaşımının tutarlılığını ve verilerin sonuçlarla ilişkisinin kurulmasını incelemiştir. Teyit edilebilirlik için araştırmada kullanılan veri toplama araçları, ham veriler, analiz aşamasında yapılan kodlamalar araştırmacılar tarafından arşivlenmiş ve hem araştırmacılar hem de nitel araştırma uzmanı tarafından ulaşılan sonuçlar verilerle sürekli olarak karşılaştırılmıştır.

Bulgular

Bulgular, araştırma problemleri kapsamında sunulmuştur. Araştırmanın ilk problemi "öğretmen portfolyosu hazırlamanın faydaları", "öğretmen portfolyosu hazırlamanın zorlukları", "portfolyo hazırlama sürecinde geliştirilen beceriler", "portfolyo sunma sürecine ilişkin düşünceler" ve "elektronik portfolyonun avantajları ve dezavantajları" temaları kapsamında incelenmiştir.

Öğretmen portfolyosunun yararlarına ilişkin bulgular incelendiğinde öğretmenler hem ön hem de son anket formlarında portfolyonun, mesleki gelişime katkı yapan ve yansıtma yapmalarını sağlayan yönlerine vurgu yapmış, son anket formunda yansıtma yapmaya fırsat sağlayan yapısı yönünde görüş belirten öğretmenlerin sayısı artmıştır. Öğretmenlerin süreçte en zorlandığı nokta ise çalışmaya zaman ayırmak olarak belirlenmiştir. Portfolyolarını sunan öğretmenlere göre portfolyo hazırlamanın geliştirdiği beceriler; yansıtma, özdeğerlendirme, koçluk yapabilme, mesleki planlama ve teknoloji kullanma becerisidir. Ayrıca tüm öğretmenler portfolyolarını sunmaktan, paylaşmaktan mutlu olduklarını belirtmiştir. Öğretmenlerin portfolyolarını elektronik ortamda hazırlamalarıyla ilgili görüşleri incelendiğinde taşıma, saklama ve güncellemede sağladığı kolaylık en çok vurgulanan özelliktir. Bahsedilen sınırlı sayıdaki olumsuz özellikler, yanında taşıyamayacak olmak, teknoloji becerisindeki yetersizliğinin verdiği rahatsızlık, kullanılan teknolojilerdeki yavaşlık, güncel uygulamaların ücretli olması şeklindedir.

Araştırmanın ikinci problemi, "meslektaş koçluğunun yararları" ve "meslektaş dönütleri hakkındaki düşünceler" temaları kapsamında incelenmiştir. Öğretmenler sürecin bir öğretmen arkadaşlarının koçluğuyla yürütülecek olmasının endişelerini azaltan bir unsur olduğunu; bu sürecin meslektaş güven duygularını artırdığını ve mesleki gelişimlerine olumlu katkı yaptığını belirtmiştir. Öğretmenler aldıkları meslektaş dönütlerini yararlı bulmuş ve bu dönütlere göre portfolyolarında değişiklikler yaptıklarını belirtmişlerdir. Dönütlerin özellikle mesleki gelişim, teknoloji kullanımı, psikolojik iyi oluş ve iletişim konularında öğretmenleri desteklediği belirlenmiştir.

Tartışma, Sonuç ve Öneriler

Araştırmanın ilk bölümünde öğretmenlerin elektronik portfolyo hazırlama süreci hakkındaki görüşleri incelenmiştir. Öğretmenler, portfolyo hazırlamanın birtakım yararları ve zorlukları olduğunu belirtmişlerdir. Yararları kapsamında, portfolyonun, öğretmenlerin mesleki gelişimlerine ve yansıtma yapmalarına sağladığı katkıya, algılanan zorluklar kapsamında ise portfolyo geliştirmenin çok zaman almasına vurgu yapılmıştır. Alan yazındaki pek çok çalışma da yararları kapsamında (Aras, 2021; Ayan & Seferoğlu, 2011; Beal, 2017; de Jager, 2019; Pennington, 2011; Pitts & Ruggirello, 2012; Taş & Cengizhan, 2013; Wray, 2007a) aynı noktaları vurgulamaktadır. Portfolyonun zaman alan bir süreç olması da alan yazındaki çalışmaları (Atay, 2003; Avan & Şahin, 2020; Taş & Cengizhan, 2013; Wray, 2007a) destekler niteliktedir. Belirlenen yararların sağlanmasında en büyük zorluklardan biri zaman ayırma konusu olarak görülmektedir. Bu sonuç, öğretmenlerin mesai saatleri içinde mesleki gelişim çalışmaları için ayırabilecekleri değişmez bir zaman aralığına ihtiyaç duydukları şeklinde yorumlanabilir. Portfolyo hazırlama sürecinin yararları bu sürecin öğretmenlerde geliştirdiği beceriler ile de kendini göstermektedir. Çalışmada özellikle vurgulanan yansıtma, öz değerlendirme ve koçluk becerileri bir öğretmenin mesleki yaşamında önemli görülen becerilerdir. Öğretmeni kapsamlı bir öz-değerlendirme yapmaya yönlendiren portfolyo hazırlama sürecini akran koçluğu sürecinin bir parçası haline getirmek, öğretmenler arasındaki işbirliğini geliştirecektir (Richards & Farrell, 2005). Bu bağlamda, çalışmada geliştirildiği düşünülen beceriler portfolyo hazırlama sürecinin doğal bir sonucu olarak değerlendirilebilir. Bu çalışmada öğretmenler elektronik portfolyo hazırlamışlardır. Öğretmenler elektronik portfolyoların olumlu özelliklerinin yanında, portfolyo uygulamalarının pahalı olduğunu belirtmişlerdir. Bu durum okulların öğretmenlere bu tür uygulamalara erişim için yeterince olanak sağlamadığını düşündürmektedir.

Araştırmanın ikinci problemi kapsamında meslektaş koçluğu ile öğretmen portfolyosu hazırlama sürecine ilişkin öğretmen görüşleri incelenmiştir. Öğretmenler, süreci bu yolla gerçekleştirmenin kaygılarını azalttığını, nitelikli ürünler geliştirmelerini sağladığını ve meslektaşlara duyulan güveni artırdığını belirtmişlerdir. Sonuçlar, koçluk sağlamanın portfolyo geliştirme sürecinin daha olumlu bir atmosferde gerçekleşmesine katkı yaptığı yönünde değerlendirilebilir. Alan yazın (Kato, 2018; Sung ve diğerleri., 2009; Taş & Cengizhan, 2013; Wray, 2007a) portfolyo geliştirme sürecinde işbirlikli katılım biçimlerinin önemine işaret etmektedir. O halde öğretmen portfolyosu geliştirme sürecinde meslektaş desteğinin öğretmenlerin daha nitelikli bir süreç geçirmelerine katkı sağladığı söylenebilir. Öğretmenlerin koçlarından aldıkları dönütlere verdikleri önemi belirtmeleri de işbirlikli kültürlerin öğretmenin gelişimindeki önemini hatırlatmaktadır.

Bulgular topluca değerlendirildiğinde bu çalışmanın sonuçları elektronik portfolyo hazırlamanın mesleki gelişim üzerindeki güçlü etkisinin altını çizirken, elektronik portfolyo hazırlama sürecinin bir meslektaşın koçluğuyla yürütülmesinin öğretmene sunduğu fırsatları da vurgulamaktadır.

Çalışma, yüksek lisans programındaki bir ders kapsamında yürütülmüştür. Öğretmenlerin görev yaptıkları eğitim kurumlarında, uzun süreli yapılacak çalışmalar farklı sonuçlar ortaya koyabilir. Araştırmada öğretmenlerin yansıtmalarının incelenmesi kapsama alınmamıştır. Yapılacak çalışmalarla bu boşluğun doldurulmasına katkı sağlanabilir. Zümre öğretmen kurullarının öğrenme topluluklarına evrilmesinin öğretmenlerin birbirlerine koçluk yapmasına zemin hazırlayacağı söylenebilir. Elektronik portfolyo hazırlama sürecinde uygulama yazılımları kullanılmasının öğretmenlerin mesleki gelişimlerinde yarar sağlayacağı düşünülebilir. Öğretmenlerin hem meslektaş koçluğu hem de öğretmen portfolyoları yoluyla mesleki gelişimlerinin sağlanması, Millî Eğitim Bakanlığı tarafından da bir mesleki gelişim yolu olarak desteklenebilir.