



A PHENOMENOLOGICAL INVESTIGATION OF THE EFFECTIVENESS OF THE ELEMENTARY TEACHER EDUCATION PROGRAM IN TURKEY

Sibel AKIN

Assist. Prof. Dr., Faculty of Education, TED University, Turkey

ORCID: <https://orcid.org/0000-0002-4081-1233>

sibel.akin@tedu.edu.tr

Ahmet OK

Prof. Dr., Faculty of Education, Middle East Technical University, Turkey

ORCID: <https://orcid.org/0000-0002-5941-4158>

as@metu.edu.tr

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Abstract

This study aims to investigate the effectiveness of the pre-service elementary teacher education program in Turkey. The study aims to explore how well, as perceived by graduates who have begun working as beginning elementary teachers, the program develops the essential qualities for elementary teachers in the 21st century. Employing criterion and maximum variation sampling strategies, 22 in-service elementary teachers participated in the study. Using phenomenological research design, the data were collected through semi-structured in-depth individual interviews, and this process was supported by a document analysis of the elementary teacher education curriculum. The data were analyzed through content analysis method with the help of NVivo 10 software. Regarding the effectiveness of the program, the participants indicated that the program was relatively 'less adequate', 'somewhat adequate', or 'more adequate' for developing the different domains of certain qualities (e.g., students with special needs, differentiation, and professional development, respectively). The results of the study provide policymakers, curriculum developers, and teacher educators with essential insights into how to improve elementary teacher education to better prepare elementary teachers in the search of raising the quality of teachers and improving teacher education.

Keywords: Elementary teachers, elementary teacher education program, pre-service teacher education, beginning teachers, phenomenology.

INTRODUCTION

Improving the quality of education for the benefit of student outcomes is an issue that has received worldwide attention as countries seek to foster social development and raise skilled individuals for their economic growth through education (Peng et al., 2014). Although policymakers have been enacting several reforms to improve schools and raise the quality of education, a common area of consensus among policymakers, practitioners, and researchers is that the quality of an education system largely depends on the quality of its teachers (Akiba & LeTendre 2018; Darling-Hammond, 2021; Goodwin & Low, 2021; Gopinathan, Tan, Yanping, Devi, Ramos, & Chao, 2008; Harris & Sass, 2011; Organisation for Economic Co-Operation [OECD], 2005; Rivkin, Hanushek, & Kain, 2005). This focus on teacher quality has been fueled by research linking teacher quality to student achievement (Azam & Kingdon, 2015; Darling-Hammond, 2015; European Commission, 2018; Goodwin & Low, 2021), and especially with the increasing interest in international benchmarking assessments over the past two decades, teacher quality has been considered as one of the most important determinants of student achievement and has emerged as a global topic of concern in teacher education (Barnes & Cross, 2020; Goldhaber & Anthony, 2003; OECD, 2018). For example, Sanders and Rivers (1996), demonstrate that the cumulative impact of effective elementary teachers on students' measured achievement over three years is estimated to yield more than a 50-point difference



in math and a 35-point difference in reading. Similarly, Chetty, Friedman, & Rockoff (2014) link the outcomes of 2.5 million children in the US, in grades 3 to 8, to measures of teacher quality and find that teacher quality strongly predicts students' both academic and social outcomes. It is therefore highly likely that the quality of teaching has a strong impact on student performance as the students who have high-quality teachers are more likely to achieve academic success than those who do not (Adnot, Dee, Katz, & Wyckoff, 2017; Chetty et al., 2014; Darling-Hammond, 2000b). In fact, many educational reports stress that it has become increasingly clear that "the quality of an education system cannot exceed the quality of its teachers and principals, since student learning is ultimately the product of what goes on in classrooms" (OECD, 2010, p. 4).

As the quality of the teacher workforce has been a subject of perennial concern in many countries (Akiba & LeTendre 2018; Goodwin & Low, 2021; Smith, 2008), it has become evident that the quality of *teacher education* is one of the most critical factors influencing the growth and success of students (Darling-Hammond & Bransford, 2007; Darling-Hammond & Lieberman, 2012; Goodwin, 2008; Hammerness & Klette, 2015; Russell & Martin, 2016). Accordingly, a study by Darling-Hammond (2000b) showed that teacher preparation was even the most influential factor in student achievement in reading and mathematics, both before and after controlling for students' demographics. It can therefore be argued that the need for high quality teachers cannot be addressed without first ensuring high quality teacher education (Chong & Ho, 2009).

While many nations have adopted a high-priority reform agenda for their education systems that calls for improving teacher quality, dissatisfaction with teacher education has been increasing (Darling-Hammond, 2000a; Ell et al., 2017; Goodwin, 2017; Korthagen, 2001; Loughran & Hamilton, 2016; Russell & Martin, 2016). The major criticisms of teacher education are that it is often ineffective in preparing teachers for the profession, unresponsive to new challenges, expectations, and the realities of the classroom, remote from practice, and facing barriers to recruit successful students into teaching (Darling-Hammond, 2000a; Korthagen, 2001), which have mostly been associated with the issues around the organization and structure of teacher education as well as the knowledge and practice of teacher education (Loughran & Hamilton, 2016). Specifically, Kosnik, Beck, and Goodwin (2016) highlight that some of the most common shortcomings of teacher education programmes are related to issues of "excessively theoretical and abstract courses; insufficient attention to subject knowledge; lack of connection between the campus programme and practice teaching schools; and minimal preparation of pre-service faculty for their role" (p. 268). Within this context, the issue of teacher quality is particularly regarded as a concern about preparation (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Ell et al., 2017, 2019; Liston, Borko, & Whitcomb, 2008; Loewenberg-Ball & Forzani, 2009; Rowan, Mayer, Kline, Kostogriz, & Walker-Gibbs, 2015; Sleeter, 2014), arguing that initial teacher education fails to provide teacher candidates with the knowledge, skills, and attitudes that are essential for the profession (Akin, 2017; Darling-Hammond & Baratz-Snowden, 2005; Hodgman, 2012; Kagan, 1992; Rowe & Skourdoumbis, 2019; Russell & Martin, 2016). As a result, there have been increasing complaints from graduates of teacher education programs, parents, school administrators, and other key stakeholders about the perceived mismatch between teacher education and the realities in schools (Korthagen, Loughran, & Russell, 2006), which has led to pressures to reconsider both the structure and practices of teacher education programs. Underlying this is that teacher education programs have a major impact on teacher quality, influence the development of the professional competences of new teachers, and make a difference in pre-service teachers' preparation (Berry, Hoke, & Hirsch, 2004; Boyd et al., 2009; Brouwer & Korthagen, 2005; Cooper & Alvarado, 2006; Darling-Hammond, Chung, & Frelow, 2002; Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005; Kozina, 2013). Teacher education programs also have a significant role in enabling teachers to obtain the competences essential to undertake this complex job and work successfully within the profession (Darling-Hammond et al., 2002). As several studies have found evidence (e.g., Darling-Hammond, 2000a; Goldhaber & Brewer, 2000), teachers who have received high-quality preparation for teaching are generally more successful with students than those who had been prepared less adequately. Thus, students of better prepared teachers achieve more gains in learning.



Although no teacher preparation can fully prepare teacher candidates for the challenges that they might encounter within the teaching profession due to the complex nature of teaching, there is evidently a need for a systematic body of knowledge relating to teacher education programs if they are to be responsive to the expectations, needs, and practices of teachers who usually face reality shock and are overwhelmed by the number of challenges they encounter, especially during their early years in the profession (Choy, Chong, Wong, & Wong, 2011; Korthagen et al., 2006; Liston, Whitcomb, & Borko, 2006). The reality shock faced by beginning teachers is a major factor in the high rates of teacher turn over and attrition (Darling-Hammond et al., 2005; Darling-Hammond & Sykes, 2003; Goldhaber & Cowan, 2014; Ingersoll, 2001, 2003; Ingersoll, Merrill, & May, 2014; Zhang & Zeller, 2016) which, in turn, raises severe concerns about the effectiveness of initial teacher education in empowering teachers to face the new expectations of the profession and effectively meet the educational needs of students, while responding to the challenges that result from educational reforms (Choy et al., 2011). Building on these, what teacher educators and teacher education can and should do more to better prepare pre-service teachers for their initial years within the profession begins with the critical evaluation of teacher education programs.

Pre-service Teacher Education in Turkey

As is the case in many other parts of the world, teacher education in Turkey has been a cardinal and longstanding issue with respect to the search for establishing an effective system to better prepare teachers. This has been especially true since the beginning of the 20th century, in which numerous efforts have been made to improve and restructure the teacher education system (Çakıroğlu & Çakıroğlu, 2003). While the stated intention behind all those efforts was to improve the quality of teachers, it has been criticized that, in fact, there has been a focus on addressing the issue of “teacher quantity” rather than “teacher quality” (Bilir, 2011; Okçabol, 2004; Üstüner, 2004; Yıldırım, 2011), and so concerns about the issue of underqualified teachers have been exacerbated. Furthermore, the lack of a consistent teacher education framework and empirical research evaluating the effectiveness of the actions initiated has only exasperated the problem along with the frequent introduction of new policies that compete with each other (Yıldırım, 2011). Among others, the most influential areas of conflict and controversy concerning the teacher education reforms in Turkey have been the issues of subject area vs. pedagogy, theory vs. practice, unification vs. diversity, testing vs. professionalization (Yıldırım, 2011), and academic approach vs. professional approach (Yüksel, 2008). The search for improving teacher education has especially been an issue in Turkey since 1982 when the establishment of the Council of Higher Education (CHE) meant that the responsibility for teacher education was transferred from the Ministry of National Education (MoNE) to universities (Azar, 2011; Bilir, 2011; Yıldırım, 2011). Since then, teacher education programs have constantly undergone top-down structural and curricular changes, including the particular elementary teacher education program that was examined in the present study, which was redesigned and initiated by the CHE in 2006 with the purpose of improving the previous program in the light of the contemporary educational approaches and the new competences expected from elementary teachers of the 21st century (CHE, 2006). Consequently, although pre-service teacher education is deemed as being the critical first step in a teacher’s professional journey, relatively little is known about the adequacy of initial teacher education programs and their link to beginning teachers’ practices in schools. Therefore, there is much need for up-to-date, and particularly, in-depth qualitative studies, especially focusing on the first years of beginning teachers to examine how satisfied the beginning teachers are with their pre-service teacher education and to identify the areas they feel could be improved.

As a result of the increasing concerns over the pervasive and perplexing issues in teacher education systems, efforts to examine the effectiveness of teacher education programs have intensified worldwide to investigate the strengths and weaknesses of the programs to improve, redesign, and reconstruct them (Akin, 2017). However, considering the landscape of teacher education research in Turkey, it has been strongly argued that more research is needed on the effectiveness of the teacher education programs as the number of studies of this line has been scarce. Additionally, since most of the existing studies have primarily been concerned with examining the perspectives of pre-service



teachers or teacher educators, it has been suggested that there is a need for more studies to be conducted with graduates who are able to provide more accurate information as a result of their first-hand experiences through the program (Yıldırım, 2013). Specifically, considering the pre-service elementary teacher education program that was originally developed in an attempt to address and improve the shortcomings of the elementary teacher education program of 1997 and was restructured by the CHE in 2006, the results of many research studies illuminate that there are still certain aspects of the program that need to be reconsidered towards the goal of preparing highly qualified elementary teachers. For example, in evaluating the elementary teacher education program of 2006 based on the views of senior pre-service elementary teachers, Fırat-Durdukoca and Ege (2016) report that the majority of pre-service teachers did not find the subject-area courses effective in preparing them for their teaching career, and thus feel there is a need to redesign the content of those courses. Similarly, pedagogical courses are not considered to be very effective due to a lack of practice-based and student-centered learning opportunities. In a study conducted with senior pre-service teachers by Şahin and Kartal (2013), most participants felt that some of the courses in their program did not help equip them with the knowledge and skills that were essential in their future teaching career. The participants instead thought that pedagogical courses that blended theoretical discussions with adequate practice-based opportunities were the most effective courses in their program. This conclusion is supported by the results of a study carried out by Süral (2015), which explores the opinions of teacher candidates and shows that school experience and practical teaching courses were considered to be the most necessary and effective in becoming an effective elementary teacher.

There are also other research studies (Akdoğan & Uşun, 2017; Aksakal, Çiftçi, Olaç, & Kalaycı, 2016; Atik-Kara & Sağlam, 2014; Ayan, 2011; Bağcı, 2014; Baştürk, 2015; Bayındır, 2011; Çakmak & Civelek, 2013; Çaycı, 2011; Çelik, 2020; Kara, Demir, Arcagök, & Şahin, 2018; Kösterelioğlu et al., 2014; Kumral, 2010; Kumral & Saracaloğlu, 2011; Özdemir, Ceylan, & Canoğlu, 2015; Taş, Kunduroğlu-Akar, Kiroğlu, 2017; Topal, Aksu, & Karadeniz, 2011; Yılmaz & Kural, 2018) that aim to evaluate the effectiveness of the particular pre-service elementary teacher education program. The results of the aforementioned studies (e.g., Çaycı, 2011) report that the pedagogical content related courses contribute to the development of the teacher candidates more significantly than the other courses that were offered in the program in previous years. On the other hand, the study designed by Kumral (2010) yielded empirical evidence about the ineffectiveness of the pedagogical courses, which was specifically attributed to teacher educator- and teacher candidate-related factors, as well as content-related factors that negatively influenced the effectiveness of those courses. Moreover, in highlighting the factors that impacted the effectiveness of the given program, Baştürk (2015) and Topal et al. (2011) also pointed out that some courses in the program were found by pre-service elementary teachers to be unhelpful, mainly due to a lack of practice-based activities. Furthermore, Kumral and Saracaloğlu (2011) pointed to the factors related to teacher candidates (e.g., their expectations and study habits), faculty members (e.g., their attitudes towards the courses and the students, traditional teaching methods, heavy work load, lack of feedback, not being a good role model, and a lack of faculty-school collaboration), and the courses (e.g., inadequate content of the courses, inadequate course hours, the imbalance between theory vs. practice, a lack of adequate field practices, and the sequence of the courses throughout the program), which all had an impact on the effectiveness of the pedagogical courses offered in the elementary teacher education program. In another study, Bayındır (2011) reported that while the courses in the program were not found, according to the opinions of the pre-service elementary teachers, to be very effective, the teaching-learning process and content of the courses, faculty members, and the available resources were the most influential factors on the effective implementation of the particular program. Lastly, there are also research studies that aim to evaluate the given program in terms of how well it responds, particularly, to the teacher candidates' development of subject-area specific competences (e.g., Çakmak & Civelek, 2013; Kösterelioğlu et al., 2014) or the generic (core) competences (e.g., Atik-Kara & Sağlam, 2014; Ayan, 2011) that were determined by the Ministry of National Education (MoNE) more than a decade ago. In light of these studies, the results present an important need for the



program to be improved and strengthened. However, given that the number of existing studies is limited, it is evident that more research needs to be conducted to further evaluate the effectiveness of the program and draw more accurate conclusions. In addition, as most studies were conducted through surveys in the quantitative research tradition, it is clear that existing research does not sufficiently employ an in-depth qualitative research methodology, especially based on the perspectives of the graduates of the program. This is considered essential, as graduates are able to provide crucial and highly accurate data about their pre-service teacher education as a result of the actual school experiences that they gain once they have completed all of the courses and field practices and finished their teacher education program.

Drawing on these, the purpose of this study is to explore the effectiveness of the elementary teacher education program in Turkey based on the perspectives of the graduates who have entered the teaching profession and begun work as elementary teachers. In so doing, the present study allows beginning elementary teachers, who are the former graduates of the particular elementary teacher education program, to speak in their own voices about how well the program prepared them for their important roles as the educators of future generations (Zeichner & Conklin, 2008, 2009). The current study is part of larger research that initially identified the domains of qualities that were considered essential for the elementary teachers of the 21st century, based on the perspectives of teacher educators, pre-service and in-service elementary teachers, and the authorities of the MoNE and the CHE in Turkey (Akin & Ok, 2021). Accordingly, considering the fact that the 21st century has been characterized with rapid changes in the field of education, where the teacher and learner roles have changed considerably, there is a need for research to further evaluate the particular elementary teacher education program especially in terms of developing the knowledge, skills, and attitudes that are needed for elementary teachers in the 21st century. The current study therefore builds on the results of the initial study to specifically answer the following research question:

How well does the elementary teacher education program equip elementary teachers with the desired essential qualities, as perceived by the graduates who have started their teaching career?

In addressing this research question, the study provides insight into the challenges confronted by beginning elementary teachers in Turkey, and addresses how well the particular teacher education program prepares these teachers to respond to the challenges they encounter during their first years of teaching. In so doing, the study primarily sheds light upon which areas the participants feel they have been more adequately, somewhat, or less adequately prepared by their teacher education. This provides the key stakeholders, including teacher educators, faculties of education, and the policymakers in the CHE, with critical insights and feedback about how well the particular elementary teacher education program is preparing elementary teachers for the current demands of the 21st century. The study therefore seeks to pinpoint the areas in the particular program that need to be improved to provide more effective practices, offer insight into teacher education, and initiate ideas about how to re-imagine and re-construct teacher education programs and curriculum. As a result, the study attempts to provide recommendations for creating teacher education programs that are effective in supporting teachers in the development of the knowledge, skills, and attitudes that will enable them to succeed in their professional lives. In this regard, the study is especially useful for curriculum developers, faculties of education, and policymakers in the development of a better curriculum for elementary teacher education, so as to prepare teacher candidates more adequately in relation to the areas that they feel inadequately prepared for during their teacher education. Moreover, the study provides insights to teacher educators as they have a primary role in implementing the teacher education programs, supporting the teacher candidates' learning, and preparing future teachers. Furthermore, the significance of the current study is also positioned in its sample as it draws on the perspectives of the graduates of the particular teacher education program. The study therefore addresses the need to evaluate the teacher education programs based on the perspectives of the graduates, which extends beyond the existing research conducted with pre-service teachers or teacher educators. Finally, the current study also contributes to the landscape of teacher education research in



Turkey as it employs the methods and the principles of the qualitative research paradigm given that the majority of teacher education research in Turkey have been designed in the quantitative research tradition as discussed earlier.

METHODS

Design

This study employed phenomenological research as the purpose of phenomenological studies is to explore the lived experiences of several individuals regarding the phenomenon of interest based on their own perspectives (Marshall & Rossman, 2011; Merriam, 2014) in order to identify essential and common shared experiences (Creswell, 2013). Accordingly, phenomenological research was used in this study to explore the effectiveness of the elementary teacher education program in Turkey, based on the perspectives of graduates who had started their teaching career as in-service elementary teachers.

Participants

The participants included 22 in-service elementary teachers who were selected through criterion and maximum variation sampling strategies (Patton, 1990). First, using criterion sampling, it was ensured that the participants had graduated from the public universities in the capital city of Turkey, which had at least 10 years of experience in the implementation of the elementary teacher education program. Second, employing maximum variation sampling, the participants were selected from the graduates of all identified universities as variations in the implementation of the program across different higher education institutions might have accounted for differences in participants' perspectives regarding the effectiveness of the program. Moreover, based on criterion sampling, the study included only elementary teachers who had gone through this particular program and had graduated after 2010, which is when the first cohort of pre-service teachers in this program had graduated. Thus, the participants of the study had completed their teacher education program in 2014 and had been working as novice in-service elementary teachers. Finally, since the participating elementary teachers were also the participants of a previous research that set the stage for the current study, they had been previously recommended as promising teachers by their teacher educators when they were in the last year of the particular pre-service teacher education program during the conduct of the initial study. Based on this sampling procedure, the demographical characteristics of the participating 22 in-service elementary teachers are presented in Table 1.

Table 1. The profile of participating in-service teachers

Characteristics	<i>n</i>	%
Gender		
Female	17	77.27
Male	5	22.73
University		
U1	6	27.27
U2	7	31.82
U3	9	40.91
Program type		
Daytime education	18	81.82
Evening education	4	18.18
Level of education		
Bachelor's degree	16	72.73
Master's	6	27.27
Teaching experience		
3 months	6	27.27
1 year	2	9.09
2 years	14	63.64



Table 1. The profile of participating in-service teachers (*continued*)

School type		
Public	13	59.09
Private	7	31.82
Experienced in both	2	9.09
Experience in rural schools		
Yes	13	59.09
No	9	40.91
Experience as a school principal		
Yes	3	13.64
No	19	86.36
Experience in multigrade classes		
Yes	6	27.27
No	16	72.73
Grade level		
1 st grade	7	31.82
2 nd grade	6	27.27
3 rd grade	3	13.64
4 th grade	3	13.64
Multigrade	3	13.64
1 st +2 nd +3 rd +4 th graders together	1	4.55
3 rd +4 th graders together	2	9.09
Total	22	100

It can be seen from Table 1 that of the 22 in-service elementary teachers, 17 (77.27%) were female and 5 (22.73%) were male. While 6 (27.27%) participants were from University-1 (U1), 7 (31.82%) participants were from University-2 (U2) and 9 (40.91%) participants were from University-3 (U3). 18 (81.82%) of the participants were a graduate of a daytime education program and 4 (18.18%) of them had graduated from an evening program. The teaching experience of the participants ranged from 3 months to 2 years, and was either in public ($n=13$, 59.09%) or in private schools ($n=7$, 31.82%), or in both ($n=2$, 9.09%). In addition, 13 (59.09%) teachers had worked in rural schools and 9 (40.91%) teachers had not. 3 (13.64%) teachers had also worked as a school principal, whereas the majority of the participants ($n=19$, 86.36%) had not. Finally, while some participants ($n=6$, 27.27%) had experience of teaching in a multigrade class, most ($n=16$, 72.73%) did not.

Data Collection Instruments

Once approval by the human subjects ethics committee had been ensured, the data were collected through semi-structured and in-depth individual interviews as phenomenological studies are mainly conducted through in-depth interviews with participants (Marshall & Rossman, 2011) to gain a detailed understanding of how the phenomenon of interest has been experienced by the participants (Creswell, 2013) from their own perspectives and in their own words (Bogdan & Biklen, 2007). To this end, the researchers developed a semi-structured interview schedule that included demographical (e.g., gender, university, program type, teaching experience, school type, grade level) and open-ended questions (e.g., How well do you think that your initial teacher preparation equipped you with the knowledge, skills, and attitudes that are essential for responding to individual differences of students?, How well did the program provide you with the knowledge, skills, and attitudes that are essential for developing curriculum literacy?). The interview schedule was developed based on a review of the literature, purpose of the research, and the findings of the previous study that had been conducted to identify the domains of qualities that are considered essential for the elementary teachers of the 21st century, prior to the conduct of the present study.

After the interview schedule was developed, it was revised based on the opinions of five experts and piloted. In this respect, two experts were from the elementary teacher education program, two were from the department of educational sciences, and one expert was from the elementary science education program. The interview schedule was e-mailed to all the five experts to obtain their feedback on the questions. After the feedback had been used to make necessary revisions, the instrument was piloted with three in-service elementary teachers to check the appropriateness and the



flow of the questions, as well as the length of the interview. Through the pilot study, it was ensured that the interview questions were effective in eliciting rich and relevant responses for the research questions.

Once the informed consent of the participants had been obtained, each individual interview took approximately 60 to 90 minutes and was audio-recorded with the participants' permission. The interviews were conducted with the in-service teachers via virtual (Skype) meetings (Marshall & Rossman, 2011) in December 2015. This was necessary since the participants were working in different parts of Turkey at the time of the data collection. As the participants of the current study were also included in the study that was carried out prior to the present study, meetings were first arranged via the phone numbers that were already available to the researchers. Before the interviews, the corresponding author prepared a document describing the selected domains of the essential qualities that were going to be elaborated upon during the interviews. The researcher e-mailed this document to each interviewee before the scheduled interview to ensure better awareness about what those domains might refer to specifically. The aim was that the interviewees would thereby be able to evaluate the effectiveness of their teacher education more adequately, and they would all interpret the selected domains of qualities as we intended.

In addition to the interviews, the data collection was further supplemented with the document analysis of the elementary teacher education curriculum (Creswell, 2013; Marshall & Rossman, 2011), which is particularly useful for the triangulation of data and the supplementation of other perspectives to the interviews (Marshall & Rossman, 2011; Yıldırım & Şimşek, 2018).

Data Analysis

The content analysis method was used (Bogdan & Biklen, 2007) for analyzing both the interviews and the elementary teacher education curriculum. During this process, the data were, first, aggregated into small codes (Creswell, 2013), and larger categories were then derived based on the identified patterns, recurrences, and regularities among the emerging codes (Bogdan & Biklen, 2007). This involved one of the researchers initially reading the transcripts word by word and attaching codes to certain words, phrases, or paragraphs (Miles & Huberman, 1994), which meant that the text was broken down into smaller groups or codes that were then assigned labels (Creswell, 2013). The next step was that the researcher developed broader categories depending on how related the emerging codes were to the referring category (Bogdan & Biklen, 2007). This often meant that the same unit of data received multiple codes. Both the codes and the categories were developed based on the concepts in the literature by using preexisting or a priori codes (Creswell, 2013) that had already been developed in the first part of the previous study. Similarly, the codes were also developed on the basis of the new concepts that emerged from the data as a result of inductive (Patton, 1990) or open coding (Maxwell, 2013). This contributed to the depth and openness of the study by not presupposing general constructs for the analysis of data (Patton, 1990).

After a few transcripts had been coded by one of the researchers, the same set of transcripts were then emailed to three experts experienced in qualitative research and/or elementary teacher education. As part of establishing intercoder reliability, the experts were asked to code the data so that the researchers were able to check the consistency of the codes and the categories that were derived by the researchers and the experts (Marshall & Rossman, 2011; Miles & Huberman, 1994; Patton 1990). After ensuring consistency, all transcripts were coded by the corresponding author and the data were analyzed with the help of NVivo 10 qualitative data analysis software. The anonymity of the participants was ensured by means of labels and numbers (e.g., T4; Teacher 4). Finally, sample quotations were selected and translated into English to present the findings in the participants' own words. Throughout this process, the translations were checked by an expert to ensure accuracy.

Trustworthiness

Several strategies were employed to ensure the credibility, transferability, dependability, and confirmability of the present study (Lincoln & Guba, 1985; Marshall & Rossman, 2011). First, the



credibility of the study was assured through obtaining expert opinions on the interview schedule, conducting a pilot study, carrying out in-depth data collection, a prolonged engagement with the data over a long period of time, establishing intercoder reliability, triangulation of data collection instruments, and referential adequacy (Marshall & Rossman, 2011; Maxwell, 2013; Miles & Huberman, 1994; Patton 1990). Second, transferability was provided using purposive sampling strategies and presenting a thick description of the overall research process, including information on the procedures related to the selection and background of the participants, data collection, and data analysis. Finally, to enhance dependability and confirmability, an audit trail was utilized to obtain feedback on all the processes and decisions, as well as to ensure the objectivity of the results (Lincoln & Guba, 1985; Marshall & Rossman, 2011). This involved five external researchers, who are experienced in qualitative research, monitoring and evaluating the overall study for all the processes carried out and the decisions made.

RESULTS

Drawing on the domains of qualities that were initially found to be essential for elementary teachers of the 21st century (Akın & Ok, 2021), the results of the interviews are presented below with sample quotations from the participants. The results are also complemented based on the analysis of the particular elementary teacher education curriculum.

Autonomy and Collaboration

The participants reflected on how well their elementary teacher education program prepared them for autonomous work and collaborative work with other individuals. Accordingly, they highlighted that the program was only somewhat effective in terms of providing them with the opportunities to collaborate with in-service elementary teachers, and/or their mentors, during their initial teacher preparation. In addition, most participants said that the program did not offer sufficient opportunities to them to collaborate with parents. In connection with the above aspects, participants primarily drew attention to the pivotal role that practice-based courses, such as Community Service, School Experience, Practice Teaching I-II courses, play in the curriculum. To illustrate, the following teachers reflected that:

...Either in School Experience course or Practice Teaching I and II courses, we did not have any chance to meet with the parents. In addition to being offered in a limited period, such courses enabled us to interact only with the mentor elementary teachers and the school administrators. Regarding the parents, we rather had discussions during the classes in the university... (T11).

...Especially in Practice Teaching I and II, we had to have good relationships with our mentor elementary teachers because we were not only being graded by the faculty members. I mean, the mentor teachers also had an impact on our grades for the practicum courses as our teacher educators asked them to evaluate us. Thus, we were paying attention to do whatever they wanted us to do, rather than fostering partnership or collaboration (T6).

Moreover, none of the participants felt that the program effectively encouraged them to work collaboratively with other professionals, such as early childhood education teachers. Similarly, most of the beginning teachers evaluated the program as being ineffective in enabling them to collaborate with school counselors, special education teachers, and child development experts. With mention of the lack of well-structured field experiences, one teacher particularly made the following criticism:

We never had a chance to collaborate with a special education teacher or a school counselor while the field experience courses could have been considered as a great opportunity for these purposes. We were rather expected to make observations in the class or in the school. I think, the teacher educators should redesign the objectives and the activities carried out in the field experience courses and make them more effective (T7).

On the other hand, one of the teachers reflected on their past experiences in the class and suggested inviting guest speakers (also field trips) to the faculty as part of extracurricular activities:



...Throughout our teacher education program, our teacher educators invited the former graduates to the faculty and organized meetings with them for three times. I really enjoyed those meetings as it was very exciting and useful for me to learn about the real experiences of other teachers. One of our teacher educators even once invited a former graduate to the class as a guest speaker. Those graduates were good role models for us. Similarly, in the Special Education course, our teacher educator invited a student with Down syndrome, his parents, and a special education teacher to the class, which was an excellent opportunity for us to interact and collaborate with different stakeholders (T21).

Many participants also emphasized that their teacher education program was ineffective in fostering their collaboration with school administrators. In this regard, as the following teacher pointed out, the school administrators' attitudes towards teacher candidates seemed to be an important issue:

...The school principals did not take our requests into consideration very much as they might have typically considered us just as teacher candidates, not real teachers. Besides, in one of the schools that I had my field experience, the school administrators were so careless. It was totally a chaos for us being assigned to the classes in that school (T1).

The program was also found to be quite poor in terms of providing the teacher candidates with opportunities to collaborate with the local authorities in the school area, or in other institutions such as special education centers, early childhood education institutions, counseling and research centers, and nongovernmental organizations. Accordingly, the participants particularly highlighted the critical role of establishing a strong faculty-school-community partnership which stressed the need for a reciprocal relationship between the faculty and other professionals/institutions. For instance, one of the teachers stated:

...I think, first and foremost, the collaboration between the faculty of education and the nongovernmental organizations was not strong, at all. The dean of the faculty and the head of the departments could have been much more active for developing partnerships with the nongovernmental organizations so that we would have had more opportunities to collaborate with them. This collaboration is, by its nature, two-way, you cannot expect only one side to invest more time and effort in a relationship (T19).

Finally, in relation to encouraging teacher candidates to work autonomously, most of the teachers stated that their initial teacher preparation program had been quite effective. This was mostly attributed to the faculty members' (teacher educators') expectations of the courses. As an example, the following teacher explained:

...Throughout our teacher education process, we had so many assignments which included both individual and collaborative work. In most of the courses, we did not have written examinations. In most courses, we were rather expected to make individual and/or group presentations. ...I also remember that one of our teacher educators asked us each week to write an opinion paper about that week's topic before the class. Therefore, we had to review the resources and get prepared for the topic individually. Similarly, most of the time, we were asked to work in pairs or small groups in many courses to develop and present effective lesson plans (T12).

Personal and Professional Development

Concerning their personal development, most participants thought that the program was effective in terms of encouraging them to attend social and cultural activities. In this regard, it was particularly seen that the expectations, suggested activities, and assignments of certain courses, such as Children's Literature, Drama, Teaching Visual Arts, Arts Education, Museum Education, were highly emphasized, as illustrated by the following comment from one of the participants:

In certain courses, we had more opportunities to engage in social and cultural activities. For instance, we had Visual Arts course and it was very effective in this regard. Throughout this course, we went to the museums, theatre, and engaged in a lot of social and cultural activities. For instance, once we travelled to Istanbul and visited Sakıp Sabancı Museum. I also remember that we went to see a photography exhibition at Middle East Technical University (T16).



On the other hand, the participants often mentioned that their initial teacher education was highly theoretical and thus lacked adequate practice. Hence, they stated that this led to the lack of courses in the curriculum that would have supported their personal development. To illustrate, one of the participants stated that:

...Most of the courses in our teacher education program aimed at equipping us with the academic knowledge and skills. However, the program should also offer an adequate number of courses to support our personal development. In this regard, we had only two or three courses. One of those courses was the Physical Education and Sports Culture course. I think, even the aims of this course need to be reconsidered so that it would support our personal development much more (T8).

In addition, many participants did not find the program effective in encouraging them to engage in at least one type of sport or dance that might be necessary for elementary teachers in their professional lives. In this respect, one of the teachers suggested that elective courses (and the active use of bulletin boards for the announcement of such activities) should be provided in the program:

...We did not have any courses aiming to engage us in different sports or hobbies. If someone had such interests, s/he had to find additional courses in the campus or in the city. However, I believe that such courses could have been offered as elective courses throughout our teacher education as they may be very helpful for elementary teachers who mostly start working in rural areas with the lack of such opportunities (T18).

On the other hand, regarding their professional development, most participants felt that the program was highly effective in terms of encouraging them to develop positive attitudes towards ongoing learning and professional development, as well as the development of a strong commitment to the teaching profession and an understanding of professional ethics. Accordingly, the teacher educators were particularly mentioned as being critical role models who have a large impact on future teachers. For example, the following teacher expressed that:

Most of our teacher educators were highly motivated to educate us and work for our professional development. They had a high level of motivation towards their profession. Therefore, they were really good role models for us in terms of being a good teacher. To be honest, before I entered to this program, I always considered being an elementary teacher as an easy or effortless profession. However, our teacher educators always treated us as teachers and made us believe in the importance of our profession. The way that they behaved as a teacher educator helped me to a great extent to develop commitment towards my profession and love my job. Without their support, I could have quitted the program to study in another program (T13).

All participants believed that the program supported them well in terms of building a strong theoretical background regarding elementary education. A significant number of participants also highlighted that the program was quite effective with respect to encouraging teacher candidates to follow professional publications, recent developments, and events in their field. However, the participants reported that they were not sufficiently able to join or organize adequate professional development activities during their education, and struggled with a lack of mentorship from the teacher educators. Similarly, they criticized the pervasive testing that the teacher candidates needed to pass to be appointed as teachers of record by the MoNE. To illustrate, by comparing their teacher educators' practices with other education faculties, one of the participants contended:

In our university, the teacher educators were more concerned about equipping us with the professional knowledge, skills, and attitudes than preparing us for the KPSS (national teacher selection examination). In this regard, the faculty environment and the teacher educators were very professional, I believe. However, observing my colleagues who studied at other universities, I can say that their teacher educators were more concerned with the success of their students on KPSS than their professional development or the course activities to be carried out (T21).

Finally, in relation to the provision of the skills required to develop and carry out educational projects, most participants said that the program did not offer adequate opportunities.



Higher-Order Thinking Skills

A considerable number of participants found the program effective in terms of fostering their creativity. In this respect, they especially referred to the effectiveness of establishing creative learning environments within the courses, and the integration of creativity into the teaching methods. For example, one of the participants said:

As we teach young students, it is highly crucial for us to develop our creativity through our teacher education process. In this regard, our Drama course was so helpful as we had a lot of role-playing scenarios in this course. At the beginning, those scenarios were only based on the everyday situations. Later, we also started to learn how to integrate drama as a teaching method into the courses that we were expected to teach. To this end, we identified different objectives for several disciplines and developed lesson plans based on the selected objectives. I think, those activities helped us considerably to develop our creativity (T9).

Similarly, most participants evaluated their teacher education program as being effective in terms of developing their critical thinking and reflective thinking skills. On this point, it was notable that one of the teachers drew attention to the importance of student clubs in the faculty or university for fostering critical thinking skills:

...Speaking from my own experience, attending student clubs is one of the most important ways of developing creativity or critical thinking skills. For instance, I was a member of the Elementary Education student club. The activities that we did as a large group enabled me to develop a different point of view towards the issues that we discussed. ...The student clubs even share the largest part in my development at the university. I mean, listening the perspectives of others not only broadened my perspective, but it also helped me adopt a more critical approach towards the issues in life (T5).

Finally, some participants believed that the program supported them adequately in the development of problem-solving skills, whereas another group of participants criticized the program as being poor and requiring improvements in this regard.

Effective Communication

Many of the participants stated that their teacher education program was adequate in the development of their oral and written communication skills. In terms of oral communication, almost all of the participants suggested that the program supported them well in learning how to use body language, make eye contact, establish face-to-face communication, use their voice, and use “I” language effectively. However, in terms of written communication skills, most participants added that the program did not equip them with sufficient knowledge of formal written communication, which they felt was especially important as beginning teachers. This included especially the teachers who were also charged with the managerial duties of a school principal, as illustrated by the following participant:

I started my teaching career as an elementary teacher who was also charged with the managerial duties as a school principal. After a while, I was warned that I was stamping the cover letters, which is not appropriate. I was doing so because I was never taught about such issues. The only thing that I could do was to imitate whatever I observed from the documents that the previous school principal had issued. Therefore, to me, an elementary teacher should know how to manage the official documents and thereby, have the knowledge of formal written communication (T10).

The participants further reflected on how well they were prepared to communicate effectively with certain groups of individuals. A significant number of participants emphasized that the program provided them with ample opportunities to communicate effectively with young students. However, most participants criticized that they were not adequately prepared to communicate with students (and their parents) in rural areas, with whom elementary teachers are likely to have a communication barrier, especially considering that those students may not speak Turkish as their mother tongue. Accordingly, it was striking that almost all participants found the program quite ineffective in terms of preparing them to communicate, at least at a basic level, in local languages spoken in different regions



of the country, or in widely spoken foreign languages. To illustrate, the following teachers argued as follows:

I was trained to teach, but... I do not find it appropriate that we did not have any courses, including the elective courses, on communicating in local languages. Evidently, we need to learn a few local languages to, at least, communicate at a basic level with the students, parents, or villagers who might not speak Turkish as their mother tongue in the areas that we are likely to work as elementary teachers. Currently, I am working in the Southeast Anatolia in Turkey, and it is a big challenge for me to communicate with the children as they speak Turkish very little... (T14).

...For instance, the teacher candidates of the Turkish education program are offered courses on teaching Turkish to the non-speakers of Turkish. In a similar way, such an approach must have been adopted in our program (T12).

In addition, while some participants evaluated the program as being effective in preparing them to communicate effectively with students with special needs, others believed that it was not very effective in this respect. Finally, while most participants felt that the program was somewhat effective in encouraging them to establish effective communication with parents and mentor elementary teachers, it was considered generally ineffective in terms of providing them with adequate opportunities to collaborate and communicate effectively with school administrators, school counselors, inspectors, and local authorities.

Differentiation

Most of the participants thought that the program supported them well in terms of differentiating instruction, including the differentiation of teaching methods, course activities, and instructional materials, based on the individual differences of students. However, most teachers underscored that they were inadequately prepared to differentiate instruction based on the characteristics of the students with special needs and the students in multigrade classes. In particular, most participants held that the program did not help them learn how to develop effective and different (individualized) lesson plans, and that there was a lack of opportunities to have field practice in such educational settings, a lack of collaboration between the faculty and schools or relevant institutions, and a need to update the scope of the related courses. With a particular focus on teaching in multigrade classes, the following participants stated:

As the students of different grades are studying in the same classroom in multigrade classes, elementary teachers should be able to develop different lesson plans to teach the students of those different grades together... (TE10).

...Yet, in addition to the urban schools, we should also have been sent to the schools that are located in rural areas, including multigrade classes. ...For instance, the schools that I had my field practice in Practice Teaching I and II courses were in urban districts. I can say that there are huge differences between those schools and the school that I have been currently working at now (T11).

Regarding the differentiation of assessment and evaluation, a considerable number of participants believed that the program was inadequate in teaching them to learn how to differentiate the assessment and evaluation techniques based on the individual differences of students, especially including the students with special needs and the students in multigrade classes. On the other hand, for the differentiation of assessment and evaluation techniques based on the courses and given objectives, some participants believed that the program prepared them well, while a number of participants thought that the program was inadequate in this regard.

Culturally Responsiveness

The majority of the participants explained that the program prepared them well for knowing or recognizing the individual differences of students, although they felt inadequately prepared for how to respond to them in practice. On the other hand, the participants found their teacher education program quite inadequate to help them recognize the diversity in students' cultural backgrounds. Some participants particularly mentioned that the program hardly supported them in recognizing different



languages that might be spoken in different regions of the country. To illustrate, the following teachers reflected on some in-class activities and courses in the curriculum as:

...Especially in our Instructional Principles and Methods, Guidance, and Special Education courses, I remember that we had discussions on the individual differences of students. However, we mostly talked about students' different learning styles, interests, abilities, etc. Only in a few courses, we had discussions regarding the students' potential cultural and language differences (T7).

Although it is known that elementary teachers mostly start their teaching career in the eastern regions of the country, we were not taught anything regarding the different cultures, or the different languages spoken in those areas. As a result, we generally encounter with problems when we start our teaching career. We had such discussions only in our Teaching in Multigrade Classes course, in which we watched several videos or movies. Besides, once, the teacher educator brought a case to the class to discuss, which she found from a newspaper... (T5).

Along with these, the majority of the participants found their teacher education program inadequate in terms of teaching them how to respond to the differences in students' diverse cultural backgrounds, including their language, race, ethnicity, traditions, music, and so on. This was particularly the case in terms of organizing an appropriate learning environment for all students in which teachers modify the curriculum and monitor all students' development.

Information and Communication Technologies

The participating teachers found their initial teacher preparation program less effective in terms of helping them develop technology literacy, including the recognition of key concepts in instructional technologies. Likewise, most participants articulated that the program was somewhat effective in supporting them in the use of digital technologies effectively and encouraging them to integrate technology into the courses. However, they did report that the program fostered their skills well in the use of technology mainly as a tool to reach information. In relation to these, most participants emphasized the lack of adequate practice in the related theoretical courses, the teacher educators' lack of competence in instructional technologies or negative attitudes towards it, and inadequate physical infrastructure of the faculty, as the following teachers asserted:

In the first year of the program, we took the Computer Applications in Education I and II courses. However, those courses were not very effective as they were not practice-based. ...Besides, in those courses, we only learned how to use certain Office programs. They [the teacher educators] should, at least, update the scope of the course (T17).

It is ridiculous that I graduated from one of the best faculties of education without seeing a real smart board. It is also ridiculous that we still had overhead projectors in the classrooms. ...So, we were actually talking about the 21st century, right? (T1).

In relation to creating digital learning environments, the participating teachers underscored that the program did not develop their knowledge of digital games, while they believed that it was important for them to teach young children. Similarly, the majority of the participants underlined that the program did not support them in the development of digital instructional materials either.

In terms of social media, most participants stated that the program did not prepare them adequately for integrating social media into the courses. In relation to this, the majority of the participants mentioned that the program did not encourage the use of social media as a tool for any educational purposes at all, and this was mainly attributed to the teacher educators' negative attitudes towards social media, as illustrated by the following teacher:

Throughout our teacher education, we were not encouraged to use social media for the teaching purposes because most of our teacher educators believed that social media was useless and loss of time. Besides, they were firmly convinced that the social media platforms were totally rubbish and everything was distorted (T1).



Lastly, with regards to developing media literacy, the participants believed that their initial teacher preparation was also quite ineffective. Along with these, it was reported by a number of participants that the program did not offer much from the outset to encourage them to develop positive attitudes towards technology, whereas some participants thought that it supported them in this respect well.

Students with Special Needs

A large number of participants expressed that the program was effective in terms of developing positive attitudes towards students with special needs. However, with regards to developing knowledge of special education, while most participants thought that the program prepared them well, a number of participants found it to be inadequate. In particular, the majority of the participants found the program effective in helping them learn the characteristics of students with special needs. However, the participants reported that their initial teacher preparation was inadequate in showing them how to approach students with special needs based on their distinct characteristics, for which they mostly suggested incorporating field trips and guest speakers into the curriculum:

The teacher educator of our Special Education course invited a child with Down syndrome and his parents to the faculty. It was the first time for me to see a child with Down syndrome. Besides, it was very interesting for us to listen their first-hand experiences. I think, such activities are important in terms of developing empathy in teacher candidates (T22).

Similarly, in relation to managing classrooms that include students with special needs, only a few participants said that they had been adequately prepared. Moreover, only a few participants thought that they had been well prepared in facilitating the inclusion of those students in the class. Accordingly, most participants specifically underlined that the program did not prepare them well for developing effective individualized lesson plans, as articulated by the following participant:

...Either in the Special Education course or the Inclusion in Elementary Education course, we did not learn how to prepare an individualized lesson plan. Similarly, we did not have any discussions about how to collaborate effectively with the counseling and research centers. Although these are highly crucial for the elementary teachers, I tried to learn all of these by myself when I started my teaching career. In those courses, we only discussed how to facilitate the inclusion of those students, in terms of encouraging their acceptance by other students. I believe that the objectives of those courses should definitely be reconsidered (T17).

With respect to collaborating with others in order to facilitate the inclusion of students with special needs, a considerable number of participants also stated that they had not been provided with adequate opportunities to collaborate and communicate with the parents of students with special needs. Similarly, most participants did not find the program adequate in relation to collaboration with school counselors, special education teachers, or other relevant institutions such as counseling and research centers and special education centers.

Adaptation

A considerable number of participants explained that the program had not prepared them adequately for adapting to different settings, especially for rural areas. In particular, the beginning teachers stated that they had not been able to gain adequate knowledge on rural life. They also felt that they had not been provided with sufficient knowledge on the characteristics of different regions or local areas in Turkey. Along with these, most participants did not think that program had prepared them well for adaptation to the different cultures. On the other hand, a large number of participants thought that the program had prepared them well for adapting to curriculum changes or new educational approaches, especially with respect to the constructivist reform that has been implemented in the Turkish education system since 2005. For example, the following teacher said:

...As you know, the school curricula have been revised in 2004. To be able to adjust to this change and get familiar with the educational implications of the constructivist approach, we did numerous activities in our courses throughout those four years (T4).



Accordingly, the participants especially did underline the importance of the adaptation of teacher educators to such changes:

...Even the teacher educators' attitudes towards change were very influential. For instance, while some of our teacher educators were quite open to the changes towards the constructivist approach, there were also some others who did not urge themselves much to change their teaching styles, maybe for the last 10-15 years. I mean, in order for us to reflect the implications of constructivist approach into our practices, first of all, it is the teacher educators who should change their teaching styles and be good role models for us (T8).

Finally, most participants emphasized that their initial teacher education was inadequate in terms of preparing them to facilitate the adaptation of students, particularly including the first graders' adaptation to the school settings.

In addition to the results of the interviews, the content analysis of the course descriptions provided in the curriculum of particular elementary teacher education, as determined by the CHE, also verified that there was a need to, first and foremost, broaden the scope of the courses, as well as revise and update them so that they address the essential qualities that elementary teachers are expected to possess in the 21st century. Moreover, it pointed to the need to bridge the gap between theory and practice, university courses and field work, and traditional vs. constructivist approaches to teacher education, in order to develop greater structural and conceptual coherence and better prepare elementary teachers in the search to improve the quality of teachers and elementary teacher education.

DISCUSSION and CONCLUSION

The current study demonstrates that the participating elementary teachers relatively found their initial teacher education program to be 'more adequate' in terms of developing the following domains of qualities: autonomy, professional development, and higher-order thinking skills. On the other hand, they thought that the program was 'somewhat adequate' for equipping them with the knowledge, skills, and attitudes that are related to the domains of effective communication, differentiation, and culturally responsiveness. Finally, the beginning teachers concluded that the program was 'quite inadequate' in terms of preparing them for the following domains of qualities: information and communication technologies, students with special needs, adaptation, collaboration, and personal development. From these results, it can be argued that the elementary teacher education program needs to be redesigned and improved on the basis of the domains of qualities that were not, according to the perspectives of the graduates, developed adequately. In this regard, the results of the present study appear to be similar to those of the previous research that pointed out the inadequacy of the current program in several aspects (Akdoğan & Uşun, 2017; Aksakal et al., 2016; Bağcı, 2014; Baştürk, 2015; Bayındır, 2011; Çelik, 2020; Eret, 2013; Fırat-Durdukoca & Ege, 2016; Kara et al., 2018; Kumral, 2010; Kumral & Saracaloğlu, 2011; Şahin & Kartal, 2013; Taş et al., 2017; Topal et al. 2011; Yılmaz & Kural, 2018). These findings might be a result of certain sources influencing the effectiveness of the program, such as the narrow scope and objectives of the courses (e.g., Community Service, Multigrade Classes, Special Education, Turkish Education System and School Management) that need to be revised and updated along with the essential qualities that elementary teachers are expected to possess in the current era; the inadequate use of student-centered teaching-learning methods and activities in the courses; the type of assignments given to the teacher candidates and the assessment and evaluation techniques; the lack of adequate elective courses that would have responded to the emerging needs of prospective elementary teachers and to the realities of schools (e.g., culturally responsiveness, students with special needs, personal and professional development, suburban schools); as well as the lack of adequate practice-based opportunities provided by most of the courses. In addition, as implied by the results, the lack of adequate and effective field practice, as well as the structural design and sequence of the field practice courses through the four-year program (e.g., School Experience, Practice Teaching I and II), and the lack of adequate faculty-school collaboration and partnership might have a strong impact on the perceptions of the graduates of the program regarding its effectiveness. The lack of



variety in the school settings that are selected for field practice courses, such as the lack of practice in rural schools or multigrade classes, might also have led the participating in-service teachers to feel inadequately prepared for the aforementioned domains of qualities that are essential for elementary teachers. In this regard, the analysis of the particular elementary teacher education curriculum also showed the need to bridge the gap between theory and practice, university courses and field work, and traditional approaches and constructivist approaches to teacher education. It also pointed to the need to update the scope and objectives of the courses based on the essential qualities expected from elementary teachers in the 21st century.

In discussing the results regarding the effectiveness of the elementary teacher education program, previous studies have similarly highlighted the importance of certain sources that might have an impact on the effectiveness of the particular elementary teacher education program. It was argued that the following were the most important factors influencing the effectiveness of the elementary teacher education program: the scope of the courses, the irrelevancy of the course content to the realities of schools, the course activities, the teaching methods of teacher educators, the teacher candidates' level of readiness, the assessment and evaluation techniques used in the courses, the lack of effective feedback, the incompetence of teacher educators, the attitudes of teacher educators towards the courses and teacher candidates, the heavy teaching load of teacher educators, the inadequate number of teacher educators in the program, large class sizes, large number of student admissions to the program, the misalignment between the content of the courses and that of the KPSS (the centralized teacher appointment exam), the lack of adequate and effective field practices in the pedagogical courses, the design and sequence of the courses in four-year teacher education program, the lack of field practices in rural schools, the lack of variety in terms of the schools that are selected for field practices, the lack of faculty-school collaboration, and the inadequate infrastructure of the faculty buildings (Akdoğan & Uşun, 2017; Aksakal et al., 2016; Ayan, 2011; Bağcı, 2014; Baştürk, 2015; Bayındır, 2011; Çelik, 2020; Eret, 2013; Fırat-Durdukoca & Ege, 2016; Kara et al., 2018; Kumral, 2010; Kumral & Saracaloğlu, 2011; Özdemir et al., 2015; Süral, 2015; Şahin & Kartal, 2013; Taş et al., 2017; Topal et al., 2011; Yılmaz & Kural, 2018).

While the current study aimed to explore the effectiveness of the elementary teacher education program that was put into implementation in Turkey in 2006, the results of the studies that aimed to evaluate the new elementary teacher education program that was put into practice in 2018 to address the weaknesses of the previous program, also shows similarities with the results obtained from this study. For example, the results of some studies (e.g., Altunova & Aslan, 2019; Kılıç-Özmen, 2019; Susar-Kırmızı & Yurdakal, 2020; Yurdakal, 2018) point out that reconsidering the irrelevancy of some of the courses offered in the previous program and offering a large variety of new elective courses in the new program have been among the strengths of the new elementary teacher education program in 2018 in better responding to the needs of elementary teachers in the 21st century. On the other hand, showing consistency with the results of the present study, the 2018 program has also been found to be ineffective in providing teacher candidates with adequate field experiences in elementary school settings. The new program has indeed been subjected to more severe criticisms of being unable to provide teacher candidates with sufficient practice-based opportunities and clinical experience. Accordingly, the results of those studies generally suggest that not only the number of practice hours has been decreased significantly, but also some of the field practice courses (e.g., School Experience) have been removed from the new elementary teacher education program in 2018.

In addition to these points, given that teacher educators have a pivotal role in the enactment and successful implementation of teacher education programs (Cochran-Smith, 2003, 2010), teacher educators should look for ways to strengthen faculty-school partnerships and collaborations, the aim being to move towards a practice-focused curriculum for learning through teaching in university-based teacher education (McDonald et al., 2014; Zeichner, 2010). To this end, teacher educators should develop shared understandings and reciprocal, effective collaboration, especially with mentor elementary teachers and school administrators in partnership schools to improve the quality of field



practices for prospective elementary teachers. In this regard, it is noteworthy that while teacher educators serve as university-based role models and mentors for teacher candidates (Swennen, Lunenberg, & Korthagen, 2008), mentor elementary teachers are also critical role models in schools and have a significant impact on their professional development (Crasborn, Hennissen, Brouwer, Korthagen, & Bergen, 2011; Fairbanks, Freedman, & Kahn, 2000; Hudson & Hudson, 2010; Goodwin, Roegman, & Reagan, 2016; Kiraz, 2002; Kolman, Roegman, & Goodwin, 2017; Roegman, Reagan, Goodwin, & Yu, 2016). It is suggested that teacher educators should also diversify the selection of the partnership schools for field placements so that teacher candidates are placed to complete their practicum studies, allowing teacher candidates to gain an experience of teaching in different educational settings. The current study also suggests that teacher educators should develop effective collaboration with the relevant institutions and other key stakeholders in the local community, such as the special education institutions and the counseling and research centers, in order to provide the teacher candidates with diverse educational experiences in different settings, coupled with professional support and guidance.

Regarding the teaching methods and the activities utilized in the classes, the results imply that teacher educators should make use of more authentic and constructivist, learner-centered pedagogies, instructional methods, and materials (Korthagen et al., 2006; Richardson, 1997; Zeichner, 1987) (e.g., reflective teaching, writing and reflection, case studies, project-based work, videos, and action research). It is also concluded that teacher educators should employ not only traditional, but also authentic assessment and evaluation techniques. In addition, considering that they have a large influence on prospective teachers, teacher educators should develop positive attitudes towards the integration of information and communication technologies into the program, be open to change, and adapt to changing educational approaches and practices. The infrastructure and physical conditions of the education faculty buildings, classrooms, and the university should accordingly be enriched, improved, and strengthened with necessary facilities such as library, sports center, arts room, drama room, seminar room, laboratories, exhibition halls, internet access, instructional materials and equipment, and appropriate seating arrangements. Furthermore, as pointed out by some participants, extracurricular activities might also account for how well the program equips (or not) the graduates with the desired essential qualities. In this regard, the current study may provide teacher educators with further critical insights, as the results call for integrating different forms of extracurricular activities into the program, such as inviting relevant stakeholders to the faculty as guest speakers and organizing field trips to the relevant institutions and stakeholders (e.g., special education institutions, counseling and research centers). In addition to such extracurricular activities, it can be recommended for the personal and professional development of future teachers that pre-service teachers should be encouraged, through their initial teacher preparation, to attend student clubs, student exchange programs, and social, cultural, or professional development activities organized in the faculty/university. This encouragement could be especially effective via regular announcements made by teacher educators or the faculties of education, active use of bulletin boards in the faculty buildings, active use of social media platforms, and making sure the official websites of the faculties of education are kept up to date with current events, invitations, and announcements. For the professional development of teacher candidates, the results of the study also suggest that the attitudes of teacher educators, their behavior, mentorship, and guidance play a substantial role in helping future teachers develop a strong commitment to the teaching profession and an understanding of the professional ethics.

In light of the findings, the study also provides suggestions to the CHE in terms of redesigning the structure and scope of elementary teacher education curriculum. First, considering that field practice courses are offered only in the third and last year of the program for a limited period of time, it can be recommended that not only should the practicum courses be distributed over the course of the program from the first to the last year, but the program also needs to offer more practice-based courses and enriched teaching experiences to prospective elementary teachers. Second, as the results show the need for offering more relevant courses that would respond to the needs of elementary teachers, the present



study provides further insights for the CHE both for reconsidering the scope of the existing courses and also including new relevant courses in the curriculum; given that CHE is the responsible institution for the development of teacher education programs in Turkey alongside the centralized structure of teacher education which has relatively changed since 2020, when the responsibility for teacher education programs was transferred to some extent from the CHE to the faculties of education.

Based on the aforementioned discussions, it can be concluded that this study not only offers profound implications to elementary teacher education in terms of gaining insights into “how” of the quality elementary teacher education, but it also moves beyond the particular program, as this knowledge also adds to the landscape of research on teacher education globally as part of the search of improving the quality of teachers and teacher education overall.

While the study mainly draws on the perspectives of the graduates, future studies might also employ teacher observations to provide a more accurate portrayal of the competence of the program’s graduates in actual school settings. In this regard, we acknowledge that the current study is limited by its reliance on self-reported data. In addition, the tendency to social desirability might have interfered with the interviews, with the interviewees possibly perceiving any question to be inquiring essentially about themselves, even though that was not the main intention, and the purpose of this study was to evaluate the effectiveness of the particular elementary teacher education program. However, to reduce the effect of this threat, one of the researchers who conducted the interviews, kindly interrupted the interviewees at such times in order to bring them back to the actual focus of the study. Bearing these in mind, future research might also include the voices of teacher educators as one of the key actors in the preparation of future teachers and employ observations of class and faculty settings to supplement the interview data. This would allow the triangulation of the data and involve both teacher educators and pre-service teachers in portraying the process of pre-service teacher education in more detail. Finally, as suggested by qualitative research paradigm, the findings of this study are indicative of, but not generalizable to the entire population. Therefore, while there are other universities that had been implementing, with only some flexibilities offered, the same elementary teacher education program, the findings of the present study are limited to the perspectives and lived experiences of the participating beginning elementary teachers who have graduated from three particular public universities located in the capital city of Turkey and had participated in an initial study (Akın & Ok, 2021) that had been conducted as the first step of this research.

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