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Türkiye'de Hizmet Öncesi Öğretmen Eğitiminde Mentorluğun Tarihi

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Makale Bilgisi	ÖZET
Geliş Tarihi: 12.07.2020 *Kabul Tarihi*: 12.03.2021 *Erken Görünüm Tarihi*: 20.03.2021 *Basım Tarihi*: 30.04.2022	Bu incelemenin konusu Türkiye Cumhuriyeti'nin kuruluşundan (1923) itibaren hizmet öncesi öğretmen eğitiminde mentorluğun tarihidir. Yapılan literatür taramasında 1923 ile 1998 arasında hizmet öncesi öğretmen eğitiminde mentorluğa ilişkin kaynağa ulaşılamamıştır. Bununla beraber, tam ve net bir formasyonu olmasa da hizmet öncesi öğretmen eğitiminde mentorluk uygulamalarına gayri resmi olarak Köy Enstitülerinden itibaren (1940-1954) başlandığı, sonraki senelere daha yapılandırılmış bir halde ulaştırıldığı izlenmiştir. Türkiye'de hizmet öncesi öğretmen mentorluğu literatürde 1980 ve sonrasındaki çalışmalarda yer almaktadır. Çalışmada kronolojik olarak dönem incelemesi yapılmıştır. İlk olarak, 1940-1954 yılları arasında açık kalan Köy Enstitülerinde resmi olmayan, yapılandırılmamış ve/veya adı konulmamış bir mentorluk sisteminin olduğuna ulaşılabilir. Sonrasında, 1998 yılı reformlarıyla yapılandırılmış hizmet öncesi öğretmen mentorluğu programı başlamıştır. Bu gelişme sonrası Klinik Süpervizyon Modeli pilot çalışması ve e-mentorluk çalışmalarının da deneyimlenmesi ile literatürde hizmet öncesi öğretmen eğitiminde uygulamalı çalışmalar betimleyici bir yaklaşımla incelenmiştir. Son olarak, uygulanan programlar arasında katılımcılar tarafından daha verimli olduğu düşünülen hizmet öncesi mentorluk formasyonunun Klinik Süpervizyon Modeli olduğu gözlemlenmiştir. Bu bulgu hizmet öncesi öğretmen eğitimi programlarına katkı sağlayabilir. **Sözcükler:** Hizmet öncesi (aday) öğretmen eğitimi, öğretmen mentorluğu, köy enstitüleri, klinik süpervizyon modeli, öğretmen eğitimi

History of Mentoring in Pre-Service Teacher Education in Turkey

Article Information	ABSTRACT
Received: 12.07.2020 *Accepted*: 12.03.2021 *Online First*: 20.03.2021 *Published*: 30.04.2022	This study aims to elaborate on the history of mentoring in pre-service teacher education in Turkey since the foundation of the republic (1923). Existing literature does not provide information about the availability of an implemented pre-service teacher education between 1923 to 1998. However, a non-structured, undesignated formation in pre-service teacher training was initiated unofficially in the Village Institutes (1940-1954) and the formation reached a better structure in the following decades. The literature on pre-service teacher mentorship in Turkey emerged in the post-1980s. This study examines pre-service teacher mentorship chronologically. Firstly, an incipient pre-service teacher mentoring was inferred within the Village Institutes (1940-1954), albeit a non-structured, undesignated system. Next, a structured practicum mentorship was initiated in pre-service teacher education due to post-1998 reforms. Upon such progress, the Clinical Supervision Model piloting and e-mentorship implementations have been examined in pre-service teacher education studies which have been reviewed within a descriptive approach. Finally, the study concludes that the Clinical Supervision Model has been perceived significantly effective by the parties involved in pre-service teacher mentoring implementations. This finding may contribute to pre-service teacher education programs. **Keywords:** Pre-service (candidate, student) teacher mentoring, village institutes, clinical supervision model, teacher education

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1. INTRODUCTION

The concept of mentoring has its roots in *Odyssey* of ancient Greek times (Harris, 1993). According to the story, the king in his absence entrusts the care of his infant son to an old friend, Mentor, referred to as a trusted advisor, an educator and a guide who is nurturing, supporting, and a role model. In general, these are the characteristics used when describing mentoring (Maynard & Furlong, 1993) - the development of less experienced and skilled individuals through the support of more a competent and knowledgeable person (Çakır & Kocabaş, 2016; Kartal, Özdemir & Yirci, 2017; Anderson & Shannon, 1988). Knowledge and experience transfer through communication and interaction between the mentor and the mentee corresponds to mentoring process (Özdemir, 2012), and the transfer can only happen smoothly and effectively if there is harmony between the two parties who carry out mutual responsibilities (Clutterbuck & Ragins, 2002; Yirci & Kocabaş, 2010).

Mentoring is a highly significant aspect of the practicum period in teacher education programs. A mentor is an information source who shares his experience and knowledge while offering the guidance needed for teacher trainee to make him progress professionally (Özkalp, Kirel, Sungur & Cengiz, 2006). Mentoring roles of an experienced teacher have been described as to support and provide feedback to teacher trainees and donate them with necessary skills for the real world in the school and classroom setting (Wood, 2007). Hudson (2004) underlines the roles of mentors as positive and representative models, to be informative about technical and pedagogical aspects of teaching practice, as well as with the system and curriculum demands (He, 2009). A healthy mentorship provides trainee teachers with academic and psycho-social benefits (Yirci, Karaköse, Uygun & Özdemir, 2016) to be able to adapt to their profession and its environment along with improving their job and life satisfaction (Tenenbau, Crosby & Gliner, 2001). Mentoring has a crucial impact on the identity development of pre-service teachers as well (Lai, 2009; Bates, Drits & Ramirez, 2011; Slick, 1998). When mentors are positive, mentees do feel positive to consult them for solutions on the constraints in their lesson planning and delivery in such an efficient way that they build up even more confidence and learn more from their self-reflections. On the other hand, if the mentor has a negative stance for such interest and benevolent care, the pre-service teachers' confidence is negatively affected (Izadinia, 2015).

There have been a number of studies exploring different aspects of pre-service teacher mentoring in Turkey, particularly in the last two decades. Çakıroğlu and Çakıroğlu (2003) referred to practicum in teacher education "as a separate world from the schools in terms of knowledge about teaching" (p. 262), criticizing the abyss between the subjects covered by university students and the formal teaching in the country. Atay (2003) explored the changing face of teacher education with a particular focus on pre-service teacher education indicating that collaboration between cooperating teachers and student teachers had a significant effect on the teaching efficacy of the student teachers as well as their teaching identities. In addition, Ekiz (2006) and Boz and Boz (2006) emphasized the importance of prospective teachers' experience opportunities in school placement. Ekiz (2006) studied mentoring within the class mentors' and student teachers' perspectives. The research revealed conflicts between mentors and preservice teachers. Thus, the researcher suggested that the mentors should reflect on their own practices to better evaluate those of the student teachers. Furthermore, Boz and Boz (2006) explored prospective teachers' experiences at school placement phase. The results indicated that student teachers "did not feel like the teacher of the class and did not get enough chance to practice" (p. 353). A number of other studies have been conducted with pre-service teachers, university supervisors and collaborating teachers in different subject areas to assess the effectiveness of the practicum period, indicating the strengths and weaknesses of this period as well as the challenges that the parties faced (Eraslan, 2008; Paker, 2008; İbrahim, 2013; Bulunuz, Gürsoy, Kesner, Göktalay - Baltacı, & Salihoğlu, 2014; Alabaş & Yılmaz, 2018; Kırçiçek & Yüksel, 2019). However, in none of these studies has sufficient light been shed on the history of pre-service teacher mentoring in Turkey.

Thus, the present historical review aims to contribute to literature in a number of ways: First, there is a need to demarcate the periods of pre-service teacher mentoring in Turkey which has been observed as follows: 1- unstructured mentoring days, 2- structured mentoring during the post-1998 amendments, 3- the Clinical Supervision Model piloting, and 4- e-mentoring. The related literature review has been conducted based on the key words 'pre-service teacher' and it was observed that 'student', 'trainee', 'candidate', and 'prospective' teacher as well as 'mentee' counterparts have been used interchangeably and synonymously within the existing literature as of the 1980s. The use of mentoring in pre-service teacher education has been explored in Turkish history depending on the available literature. A scarcity of literature related to mentoring was observed in the two decades between 1923, the foundation of Turkish Republic, and the 1940s, the establishment of the Village Institutes, which set off an implicit, non-structured pre-service teacher mentoring. Hence, this paper aims to illustrate the implementation of mentoring from the earliest applications to e-mentoring as presented in relevant literature, particularly in practicum related studies from 1995 to 2020 within a descriptive approach.

2. THE BEGINNING OF TEACHER EDUCATION IN TURKEY: UNSTRUCTURED MENTORING DAYS

The first steps in the foundation of teacher training institutions date back to the last periods of the Ottoman Empire, before the foundation of the modern Republic of Turkey. 'Darülmuallimin' schools, which were constituted in 1848 and served until 1924 in Istanbul to educate teachers for the 'modern' schools (Rüşdiye mektepleri), were recognized as the first teacher education institutions (Akyüz, 2006). These schools were regarded as modern as they provided more secular, standardized, and westernized education than the existing primary schools offering traditional and religious education. When the existing literature was examined, it was seen that a 'muid' (assistant teacher) who had a diploma and ranked the highest would be promoted to school service to attain teaching skills and experience. Unless a vacancy emerged in assistant teaching, the 'muid'

would remain in Darülmuallimin and pursue his career there (Özkan, 2018). However, there was no reference whether the 'muid' as an assistant teacher received any mentoring or not.

During the time of the Ottoman Empire, the control of the schools was not centralized under one governmental unit. After the foundation of the Turkish Republic, Turkey wanted to reserve a 'developed nation' room in the Western world (Çakıroğlu & Çakıroğlu, 2003) and one of the first steps was to unify the Turkish educational system and standardize it with the government's act of 'The Law on Unification of Education' in 1924. This was actually "the first radical arrangement in the field of education as it put all educational systems under the control of the Ministry of Education" (Tarman, 2010, p. 80). MoNE (Ministry of Education) legislated all the policy and administrative decisions including teacher and administrator appointments, course book selections, and curriculum development (Seferoğlu, 1996). As a result, 'Teacher Schools' were found to initiate reformation in both rural and urban regions to educate teachers during the early foundation years of Turkish Republic. However, these schools were insufficient in terms of number, education quality, and budget (Gürşimşek, Kaptan & Erkan, 1997).

The first 'real' mentoring practices in Turkey started with 'Village Institutes' in the 1940s, with the prominent enterprise of reformative actions for teacher education. These institutes aimed to raise teachers for villages as the village people needed education to improve their skills in agriculture, animal care, handcrafts, domestic economics, as well as art. Village Institutes were the outcome of regional needs in the country which catered for educating people in the villages of Anatolia who had been deprived of decent, modern education as a result of the consecutive wars (Çakıroğlu & Çakıroğlu, 2003). Only the students in villages who completed their five-year elementary education were accepted to those institutes (Giorgetti, 2009). Binbaşıoğlu (1995) remarked the importance of the Village Institutes by expressing "institutes have a very unique place in Turkish history of education because they were based on the practical needs of the village people and problem solving in real-life situations" (p. 40).

Village Institutes are considered as one of the unique and best examples of mentoring in history. The mentorship in these institutes was unstructured and rather seen as a master-apprentice relationship which happened at multiple levels: teachers were in the position of mentors of teacher trainees and teacher trainees were mentoring one another in practical courses. Students were trained to acquire real-life and practical skills in such areas as agriculture, carpentry, blacksmithing, basketry, fishery, and technology in order to be able to apply them in the villages where they would be appointed (Giorgetti, 2009). Teaching staff who had expertise in these areas conveyed their knowledge to students in the practice areas of the Village Institutes as well as guided and supported them throughout their education. Teacher trainees were expected to observe the master teachers and apply the skills and practices that they have learned in the same way as their masters did. Within this framework, the feedback and guidance from the 'masters' were not standardized and structured. In addition to teachers, students in the higher grades also shared their knowledge and experiences with other teacher trainees. Moreover, teacher trainees were expected to be role models to villagers in the places they worked and help them acquire necessary skills. In this sense, it can be claimed that teachers educated in these institutes were mentors of the local people in the villages during their services (Köksal, 2016).

The multi-layered mentoring system in these institutes was not hierarchical and directive; it followed democratic principles and was a nurturing process for the mentees. One of the best examples for that was 'Saturday meetings.' All parties of the institutes, from students to administrators, attended these weekly meetings and discussed activities and progress. Everyone could criticize or make comments on ongoing duties, tasks and responsibilities of one another; the administrators fostered the culture of criticism so that each individual could realize their mistakes or weaknesses (Atan, 2019).

After the closure of the Village Institutions in 1954, there have been many major reforms in teacher education. Such reforms aimed to maintain an improved professional orientation. Teacher education continued to be provided in Teacher Schools, yet no specific information has been provided about mentoring or supervision in teacher education at that time. According to Gürşimşek, Kaptan and Erkan (1997), the quality of education offered in these institutions was quite low, and in 1973, teacher education policies in Turkey were rearranged with the acceptance of 'Fundamental Law of National Education'. Teacher Education Schools were designed as Teacher High Schools, later renamed as Education Institutes. These schools offered a three-year higher education program to teacher trainees (Gürşimşek, Kaptan & Erkan, 1997). In 1981, regulations transferred the responsibility of teacher education from MoNE to universities through the Higher Education Council (HEC) (Akyüz, 2004). Consequently, all Education Institutes were united under HEC and turned into Education Faculties at universities (Gürşimşek, Kaptan & Erkan, 1997). Teacher education system was adapted in accordance with the EU educational standards (Grossman, Sands, & Brittingham, 2010).

The mentoring process in teacher education programs was not structured and framed according to specified regulations until the end of the 90s. Until 1998, student teachers in Turkey were not able to make observations in real class settings and would not attain teaching experience in a systematic way in teacher education programs. The 'Teaching Experience' course was added to the programs, but research has shown that student teachers did not benefit much from the teaching practice; each teacher education institution had its own mentoring schedules, "such as two subsequent weeks in the last term of the fourth year, and one day per week starting from the first term of the third year and ending at the second term of the fourth year" (Ekiz, 2006, p. 925). Requirements regarding the number of micro and macro teaching sessions or cooperating teachers' observation cycle were not specified.

3. THE AMENDMENTS IN 1998: STRUCTURED MENTORING WITH THE NEW SYSTEM

The year 1999 signified the beginning of a four-year consultation program between Turkish and international educators in a World Bank Program (Stevens & Demirezen, 2002). HEC imposed an alteration in teacher education in all universities across the country (Research, Planning and Coordination Board, 2000. Due to the change, prospective teachers would not be able to receive a teaching license with inadequate experience in class settings. Hence, an inherent cooperation was supposed to be issued which meant a close-binding and harmony between universities and schools. Accordingly, schools took the responsibility of guiding student teachers and of educating them for a hands-on novice practice whereas teacher education institutions led schools to be familiar with new ways of working in practice (Ekiz, 2006). The earlier models of teacher training in cooperating schools were replaced since they were viewed as restricted, technical, and authoritarian. Supervision in Turkish teacher training from the seventies and eighties onwards became strongly influenced by humanistic psychology with a strong emphasis on harmony between pre-service teachers and their cooperating teachers as mentors at schools (Gürsoy, Bulunuz, Göktalay-Baltacı, Bulunuz, Kesner, & Salihoğlu, 2013).

The need for effective mentoring of pre-service teachers after the Amendments in 1998 proved inevitable since the national teacher education institutions had inadequacies in terms of equipping student teachers for real-life teaching practices (Güncer, 1998; Research, Planning & Coordination Board, 2000; Tarman, 2010). The scope of national reformative actions in 1999 pioneered an apparent shift towards a more "situated learning" approach in the field of pre-service teacher education as the significance of real-life teaching practice came to the foreground, emphasizing a shift of focus from individual cognitive processing to a more "situated learning" or "situated cognition" (Lave & Wenger, 1991) in teacher education. Accordingly, once student teachers reached senior class, they were to attend two weeks of practicum in schools to attain real school experience. This "situated learning" practice, in turn, would lead to a more structured inclusion of practicum or practice teaching, in that each student teacher had to teach four lessons in these two weeks' service. (Stevens & Demirezen, 2002). The cooperating teachers at schools were expected to act as mentors and monitor and observe student teachers in their classes. Each teacher had to deal with randomly assigned 6-10 students. The HEC (1998, p.10) specified the new system of mentoring process and the duties and responsibilities of cooperating teacher mentors at schools under 11 headings (Ekiz, 2006). The mentors were expected to observe and give feedback to student teachers during their teaching practice; they had to focus on the instructional methods and classroom management strategies used by the student teachers. To fulfill their mentoring role effectively cooperating teachers received training from teacher education institutions (Ekiz, 2006). All in all, the fundamental necessity of situated learning for student teachers initiated effective enactment of practicum in teacher education, allocating more time in hands-on teaching practices at schools to link theoretical knowledge of the student teachers with practical skills.

Even though these changes in 1998 brought a more systematized process of mentorship for teacher trainees in which mentor teachers' roles and responsibilities were given priority compared to previous periods, the backbone of the adopted model in mentorship did not change. In other words, the mentor and the mentee relationship did not seem to be constructive on behalf of the teacher trainees since a 'competence-based model' seemed more favorable to the mentor rather than a 'reflective' one (Ekiz, 2003). Yaylı (2008) also found out that low self-efficacy beliefs of pre-service teachers, mentor teacher indifference and supervisor–mentor teacher dichotomy had a lot to do with the pre-service teacher–mentor teacher tension, resulting in lack of blending theoretical knowledge with practical justifications.

Yavuz (2011, p. 48-51) identified the problems of mentoring in the post 1998 era in Turkey. It was found that several aspects of teaching practice needed to be particularly highlighted to improve the nature of mentoring. These were: 1) teaching problems, 2) problem coping strategies, 3) unsuccessful parts in teaching, 4) departing from the plan, 5) making changes in teaching, 6) lack of prior knowledge of pupil profile, 7) lack of prior knowledge of pupils' level of English, 8) lack of mentor feedback, 9) mentors' lack of assistance in planning and choosing teaching materials, 10) lack of time for planning, and 11) contradicting instructions from the faculty tutor and mentor. It was indicated that the main objective of HEC with the 1998 mentorship program in restructuring student teachers or initial teacher education (ITE), was to initiate a more school- based ITE. However, there were some drawbacks which can be summarized as follows:

> *Despite the considerable changes in ITE, since HEC and MoNE work as independent bodies free from each other, 'mentorship' is still taken for granted in the Turkish ITE context as there is no model, schedule, or programme developed by HEC or MoNE for mentor selection and training* (Yavuz 2011, p.44).

It was also notified that mentor selection and training were ignored: "… the issues of mentor qualifications and tasks, and most importantly subject specific mentoring such as English, Turkish, and mathematics were unaddressed" (Yavuz 2011, p.44).

Thus, it was still "mechanistic" and "prescriptive" in definition but not effective in practice:

> *…. definition, roles, and responsibilities disregarding the selection and training processes of mentors and the dynamic nature of mentorship and a well-defined partnership model to accommodate mentoring and teaching practice in an attempt to train more effective teachers* (Yavuz 2011, p.44).

In 2006, European Union Desk was formed at MoNE to improve Turkey's educational system by following the standards of education provided in EU countries. The aim was to provide Turkish citizens with a better education and improve the exchange of educational information between Turkey and the member countries. Within this framework, the Teacher Development Program of 2006 underpinned a well-balanced teacher education as follows: Programs would consist of the following contents: branch theory and technique: 50-60%; professional teaching theory and technique: 25-30%; and general cultural information: 15-20% (Eraslan, 2008).

As the system suggests, student teachers were expected to follow and observe their mentor teachers at the state schools and learn from their experiences as much as possible so that it was ensured to prepare pre-service teachers to have the necessary skills to adapt to real teaching practice (Kırçiçek & Yüksel, 2019). According to new curricula, mentoring was expected to enhance professional development and reflective practice for pre-service teachers. However, it was concluded that mentor teachers at the practicum schools were inadequate to meet pre-service teachers' professional expectations, as most of them were either not knowledgeable or experienced enough. Additionally, it was underlined that the teacher trainees were not encouraged or guided properly by the mentor teachers, some of whom also demonstrated negative attitudes towards the student teachers (Kırçiçek & Yüksel, 2019).

A study conducted by Yavuz (2011) further showed that the mentoring process did not progress smoothly as expected. With regard to the problems pinpointed in the research, to achieve a healthy and satisfactory mentoring for all stakeholders, it was recommended that they:

1) develop selection criteria and training programs for mentors;
2) decrease the intensive teaching time of faculty tutors and mentors for more effective supervision;
3) revisit teacher competencies, knowledge, teaching skills, and expertise for the mentorship program;
4) answer questions about running and administering the training program and mentor selection process, such as whether it is going to be HEC-led, MoNE-led, or an independent government agency-led program;
5) organize regular meetings, seminars, and in-service courses at the schools and universities involved in the partnership program to enhance mutual understanding and resolve problems (Yavuz 2011, p. 57).

In addition to the guidance and supports of mentor teacher, university supervisors were expected to guide and support teacher trainees in the practicum schools (Boz & Boz, 2006) to become practitioners with the necessary knowledge and skills (Gürsoy, Kesner & Salihoğlu, 2016). Within the new model, supervision/mentoring aimed to change supervision to a model which mainly allows student teachers to have more reflective practice in which student teachers' views and reflections are used as the basis to understand and improve teaching practicum. However, this could not really be achieved since university supervisors either lacked training or had little experience of building and grounding their pedagogical practices and perspectives (Cuenca, 2010). A considerable amount of research showed that teacher trainees were discontent with their university supervisors in a number of aspects (Boz & Boz, 2006; Erarslan, 2008; Paker, 2008; Yılmaz, 2011). These included ineffective communication between the parties, inadequate number of visits to schools, insufficient feedback in terms of quality and content, inadequate support of supervisors for lesson planning, small numbers of in-class observations and uneven grading of pre-service teachers. These problems clearly confirmed the critical situation of mentorship provided by pre-service teacher university supervisors in teacher education programs. Furthermore, Boz and Boz (2006), claimed that the weak and inefficient communication and collaboration between university pre-service teacher supervisors and mentor teachers in the practicum schools needed to be increased to see a positive change in practicum experiences.

Thus, the quality of the relationship between pre-service teachers and their supervisors was emphasized to keep pre-service teachers in the process of gaining their own teaching perspectives without feeling alienated and insecure. Mostly, university supervisors assumed their roles that may result in diminished relationships with pre-service teachers. Therefore, what was expected from university supervisors and what was experienced could not be congruent with each other (Seferoğlu, 1996). The archives of MoNE revealed that the documents related to practice teaching and mentoring did not frame the duties and roles of university supervisors with the provision of specific information (Yaman, 2013).

Considering all these regarding mentoring in teacher education programs in Turkey, it could be assumed that even though there had been several attempts to renovate the existing systems and to include mentorship and benefit from this process, these were still insufficient and had conflicting outcomes for all stakeholders. As recommended by Kuter and Koç (2009), definitions and role assignments for all stakeholders in the teaching practicum was an urgent step to be taken in order to provide necessary support and guidance for each.

4. THE CLINICAL SUPERVISION MODEL (CSM): A PILOT STUDY AT ULUDAĞ UNIVERSITY, TURKEY

Aiming to increase the effectiveness of the practicum in pre-service education by improving the quality of supervisory skills of cooperating teachers and university supervisors, a pilot program known as TUBITAK (Scientific and Technological Research Council of Turkey)- EVRENA took place in 2013 at Uludağ University. Bulunuz, Gürsoy, Kesner, Göktalay- Baltacı and Salihoğlu (2014, p. 1825-1826) described the model 'Clinical Supervision' (CSM) which was based on Department of Early Childhood Education at Georgia State University that consisted of five cyclical stages: 1) pre-conference, 2) observation and data collection,

3) data analysis, 4) post-conference, and 5) reflection. The project was related to the roles of three parties in the due course: the pre-service teacher (mentee), the in-service teacher (mentor), and the university faculty member (clinical supervisor). In order to be more efficient on their tasks, the parties received in-service training given by MoNE and HEC (Gürsoy, Bulunuz, Göktalay-Baltacı, Bulunuz, Kesner & Salihoğlu, 2013).

The CSM consists of the following main stages: In the pre-observation conference, the supervisor and the teacher trainee clarify the objectives, activities, and ways to assess students. The decided points of focus are the aims for the supervisor to observe. In the observation phase, the points determined in the pre-conference are observed. The 'mutual trust' is essential at this stage since the supervisor observes only the designated aims. In the third stage, the supervisor analyses the observations. Giving feedback to the pre-service teacher is essential since the trainee would not lose face. In the post-conference stage, strengths and weaknesses are discussed by the supervisor and the trainee. Areas of improvement are determined and planned. Thus, a cyclical improvement plan acts as a framework for further observations. The reflection stage is for the supervisor to assess his/her own performance.

The CSM links cooperating teachers, university supervisors, and the pre-service teacher. It seems to fulfil the needs of the pre-service teacher in overcoming the problems and the possible initial struggles of a pre-service teacher with systematic feedback to the student teacher. The interaction between the supervisor and the student trainer enhances beneficial space for the supervisor to gain more professionalism in terms of interpersonal skills and teaching practice as it offers a cyclical process for further observation. The structure of this program enables both the student teacher and the supervisor to reflect on their performance in order to improve their teaching practice.

Following the pilot program, Gürsoy et al. (2013) investigated the effectiveness of the training in terms of the quality of supervision, feedback, communication skills and professional behavior of the university supervisors by collecting data from cooperating teachers and teacher trainees with interviews and questionnaires. A number of 81 teacher trainees (TTs) and 21 collaborative teachers completed the questionnaires while 21 TTs participated in the follow-up interviews. The results of the statistical analysis were associated with a significant difference between the CSM-trained university supervisors and the ones who were not trained at all. Furthermore, the student teachers and their mentors at schools held positive views of the former group, which suggests that university supervisors' mentorship skills can be improved with CSM training. Bulunuz et al. (2014) assessed the effectiveness of CSM implementation on teacher trainee performance with videotaped sessions. A total of 96 teacher trainees (48 in the experimental group and 48 in the control group) videotaped their lessons during the whole semester and these video recordings were rated by three teams with two researchers in each. The data analysis revealed that there were statistically significant differences between the first and second videotaped teaching scores of the CSM group and the control group. Another study conducted by Gürsoy, Salihoğlu and Kesner (2016) examined teacher trainees' and cooperating teachers' views on the contribution of CSM to the performance of supervisors during teaching practice. The study was conducted with 140 cooperating teachers and 291 teacher trainees. The results further indicated that implementation of CSM for teaching practice made statistically significant differences in favor of the supervisors' performance and contribution to school experience. Based on these findings, CSM was considered to be a promising model, and it was recommended that a greater investment of time and resources should be allocated to evaluate the performance of the student teachers and assistance should be provided in planning future investigations.

5. E-MENTORING IN PRE-SERVICE TEACHER EDUCATION IN TURKEY

In recent years, the development of technological tools offered e-mentoring as an alternative mode to the traditional mentoring process and seemingly it enhanced mentoring opportunities as time difference and distance are no longer barriers for people in different geographical locations (Penny & Bolton, 2009; Redmond, 2015). It is mostly defined as the relationship between a mentor and a mentee with the medium of computer tools to provide learning, advising, and modelling (Single & Muller, 2001). The terms such as online mentoring, distance mentoring and electronic mentoring are also used to refer to e-mentorship. Bierema and Merriam (2002) highlight the features of e-mentoring, a practice without boundaries, as egalitarian and of higher quality. It has been suggested that e-mentorship is an effective way of supporting in-service teachers, particularly those with little experience, to promote their teaching interest, increase their awareness of use of technology, help them develop discipline specific skills and knowledge, and gain autonomy and self-direction during the teaching process (Pena, Kimmel & Curts, 2004; Penny & Bolton, 2009; Özdemir & Özan, 2013; Alemdağ & Erdem, 2017; Erdoğan & Haktanır, 2019). For e-mentoring to function effectively, the availability of technological resources and knowledgeable and willing e-mentor figures are key factors (Quintana and Zambrano, 2014).

E-mentoring to support pre-service teachers' professional learning has started much more recently. The first attempts of e-mentoring of pre-service teachers were conducted with email exchanges between pre-service teachers and K-12 teachers (Watson, 2006). The findings of the study carried out with 13 pre-service teachers and 17 practicing teachers in the US revealed that online mentoring was perceived highly positively as it was a unique experience for pre-service teachers and as it offered practical insights for the field of teaching. Along with providing positive reviews, pre-service teachers mentioned some issues of concern, such as timing of responses from their mentors and finding a mentor. Recently, Redmond (2015) designed an online mentoring project to enhance the discipline pedagogical content knowledge of the pre-service teachers and to reduce their professional isolation. To achieve this, pre-service teachers at rural and remote areas were provided with one-to-one online

mentors. Positive responses on e-mentoring from both pre-service teachers and their mentors were reached, and it was suggested that higher levels of participation and communication could be achieved with some adjustments in the dialogues between the parties.

In Turkey, e-mentoring has drawn attention in educational settings in recent years and started to be implemented and studied by educators. As for the pre-service teacher education, e-mentoring program was developed to support information technologies pre-service teachers in terms of professional development in a study by Kahraman and Kuzu (2016). The data collected through different tools like researcher journals and interviews revealed that the interactions between mentors and mentees were indicators of professional gains in aspects of sharing of knowledge and experience, guidance and goal setting, knowledge about the university and adaptation, easy access to counselling, development of self-confidence, developed communication skills, social and affective support, and reinforcement. E-mentorship was seen to help develop the social networks of both mentors and mentees as well. A recent study done by Ersin, Atay and Mede (2020) suggested an alternative practice for mentorship aiming to fulfill the needs of the teacher trainees who carried out their practicum as 'e-practicum' due to the global pandemic COVID-19. The main goal was to maintain the quality of the practicum with the provision of 'e-mentoring' by the university supervisor. As the results indicated, the teacher trainees benefitted from 'e-mentoring' and they appreciated it as it was a confidence building, collaborative, and helpful experience for their professional development. In Turkey, attempts to design and study the process of e-mentorship and its effectiveness have been made lately; however, it is still relatively a new term for pre-service teacher education and remains as an under-researched area.

6. DISCUSSION AND CONCLUSION

The aim of the current study is to contribute to literature and provide insights into the history of mentoring in pre-service teacher education in Turkey. Reviewing, understanding and evaluating the historical change in pre-service teacher education practices may shed light on how implementations change, develop, and interconnect a candidate teacher's readiness to profession. As suggested by Izadinia (2015), teachers start to form their professional identities as undergraduates in teacher education programs where the formation "continues to evolve as beginning teachers take on the role of a teacher" (p.7). In other words, pre-service teacher mentoring is a stimulating factor to ensure a more secure path for student teachers to develop a strong and healthy sense of professional identity.

Teacher education programs depend on quality field experiences to produce effective teachers, particularly depend on field experience with in-service teachers who act as mentors (McIntyre & Hagger, 1996; Darling Hammond, 2012; Fraser & Watson, 2014; Howe, 2017). Transition from an undergraduate pre-service teacher to a novice may hamper progression for many students. Cross, Hubbard, Beverly, Gravatt, and Aul (2020, p. 1286) point out the fact that "at many universities, there is no connection with university faculty or staff from the initial teacher education program once the pre-service teacher transitions to full-time classroom teacher". Effective mentoring can ease this transition challenge for student teachers.

In search for better practices, a plethora of research unfolded challenges and conflicts related to cooperating teachers as well. For instance, many in-service teachers did not receive formal training in mentoring. Also, they do not have the required time to devote to mentoring a pre-service teacher due to demanding tasks in many K12 schools. (McIntyre & Hagger, 1996; Fraser & Watson, 2014). Moreover, roles and expectations were found to be not clear to many mentors in the field (Atay, 2004). Seferoğlu (1996) indicates that ensuring establishment of an equal and mutually beneficial relationship between the mentor and the mentee cannot be guaranteed. Mentor's role as a guide to young teachers is crucial from a spiritual point of view. For instance, when a 'competence-based model' was preferred rather than a 'reflective' one (Ekiz, 2003) by the mentor, the relationship between the two parties did not seem to be constructive on behalf of the teacher trainees. A probable pre-service teacher– mentor teacher tension, as Yaylı (2008) showcases, may end up in lack of blending theoretical knowledge with practical justifications, which in turn may cause low self-efficacy belief of pre-service teachers who are accompanied by mentor teacher indifference. Zhao, Wang, and Li (2019, p. 5) further suggest that "good professional quality of young teachers and their supervisors is not only a necessary condition to ensure teachers' autonomy, but also a basic condition for developing the mentoring system smoothly". If the frame of the duties and roles of parties are not designated clearly (Yaman, 2013), the practice may naturally not result in the anticipated outcomes. Pre-service teachers may have negative experiences with their university supervisors in terms of effective communication, number of visits to schools, feedback in terms of quality and content, and with their mentor teachers as well regarding support for lesson planning, in-class observations, and even grading (Boz & Boz, 2006; Erarslan, 2008; Paker, 2008; Yılmaz, 2011). Atay (2003) claims that practicum is a crucial period in pre-service teacher education, and mentors are the key players in supporting the preservice teachers while they are constructing and reconstructing their teaching and teaching identities.

The current research has displayed the fact that a structured mentoring system was not able to be achieved in teacher education in Turkey for a long time; the first practices of mentorship in Village Institutes were examples of non-hierarchical, participatory, and maintenance-based nature of mentoring. The reformative acts and regulations in the late nineties aimed to frame roles of each party in mentorship and to promote collaboration between them, making the mentoring process more structured. This new system emphasized student teacher involvement, harmony between the parties (collaborating schools, pre-service teachers, and supervisors) and more reflective and practical learning. Despite the attempts to accomplish a smooth and prospering mentoring process in teacher education, research revealed mentor/supervisor-related and system-related

problems. Especially, communication and interaction between pre-service teachers and their mentors were of poor quality and insufficient. Such interactions in the mentoring process harmed pre-service teachers' professional development and affected them negatively in terms of constructing a strong sense of teacher identity. It was further indicated little had been done to prepare cooperating teachers and supervisors for their mentoring roles (Aslan & Öcal, 2012; Tok, 2013). Apparently, structured mentoring in teacher education in Turkey was needed with quick and ample attention with inclusion of proper mentor training.

Of all the mentoring programs and periods in Turkey, what seems to be the most effective is the Clinical Supervision Model that was based on the Department of Early Childhood Education at Georgia State University. It also shows parallelism to Portner's (2003) model for mentoring can be a conceptual framework for training, focusing on four fundamental roles of a mentor: 1) fostering a trusting relationship, 2) assessing strengths and struggles, 3) coaching for proficiency and mastery, and 4) guiding toward autonomy. Furthermore, training should bind the following features of stakeholders: 1) exploring teacher preparation and the role of clinical faculty, 2) building a professionally supportive relationship with the student teacher, 3) setting expectations for student teacher competence, 4) demonstrating professional practice through competency based, reflective portfolios, 5) using clinical supervision techniques effectively, 6) observing instruction and collecting reflective data, and 7) implementing developmental coaching and conferencing techniques. The Clinical Supervision Model aims to support professional growth and career development of the teacher trainees. The supervisor's role is to help learners to achieve their goals or objectives by acting as counsellor, facilitator, and advisor (Bulunuz, Gürsoy, Kesner, Göktalay - Baltacı, & Salihoğlu, 2014). Counselling is a major part of the clinical supervision which can facilitate efficient communication and collaboration between the supervisor and the supervisee. The model is structured upon the following pillars: support, feedback, counselling, consultation, teaching, evaluation, motivation and monitoring. Future studies are required to assess and evaluate the long-term effects of the clinical supervision models.

Another important point which can be mentioned is the status of e-mentoring in Turkey, which is fairly a new term in the whole world compared to face-to-face mentorship. It has been seen that several e-mentoring programs were prepared mainly to support novice inservice teachers and pre-service teachers' professional development and the findings were mostly towards its effective and contributory nature. However, the area of e-mentoring in preservice teacher education is very limited and under-researched to suggest such an argument. As Kuzu, Kahraman and Odabaşı (2012) point out, academic studies in this field are likely to gain importance in order to carry out successful e-mentoring programs, considering that e-mentoring practices will become widespread in the near future based on developing technologies.

Considering all periods of mentoring in teacher education in Turkey, it can be concluded that its evolution from unstructured process to more concrete and rigorous implementation took many years. Pre-service teacher mentoring process presents several conflicts which arise mainly from lack of effective communication between the parties, lack of training in mentoring, observation, and supervision, lack of time to attain the necessary training to observe, mentor, and supervise. Attention to improve mentor training, optimizing the content of training, establishing effective communication and collaboration between the parties within a well-constructed supervision mechanism may guarantee overcoming the existing problems. Further research needs to be conducted on developing teacher identity, trusting relationships, teacher education, mentoring in challenging contexts, and learning leadership skills. Veteran teachers should consistently engage in accelerating the effectiveness of pre-service mentoring.

Pre-service teacher education needs to be addressed with technological advancements to nourish the process for all parties and to promote the practice to help the candidate teachers adapt themselves to their profession with a strong sense of teacher identity. During the recent pandemic COVID-19, an unprecedented time for all people, many teacher education institutions tried to shift to virtual platforms and provide practicum on online platforms as well in order to avoid interruption to access pre-service teacher training. However, e-mentoring applications so far have yielded serious concerns for all parties, indicating urgent training for mentors as well as university supervisors. Thus, roles, responsibilities and expectations for e-mentoring should be clearly redefined for smooth and effective collaboration among parties to ensure a beneficial experience for the pre-service teachers.

Research and Publication Ethics Statement

This study meets the principles of research ethics. It is a part of a Ph.D. study, so it is ensured that it addresses ethics principles and standards of scientific research.

Contribution Rates of Authors to the Article

All authors contributed equally to this study and the manuscript at all stages. It is a part of a Ph.D. study and a product of a project in which all authors collaboratively worked as a research team.

Statement of Interest

Authors have no conflict of interest to declare.

7. REFERENCES

Akyüz, Y. (2004). *Türk eğitim tarihi - Başlangıçtan 2004'e*. (9th ed.). Ankara: Anı Yayınları.

Akyüz, Y. (2006). *Türk eğitim tarihi*. Ankara: Pegem Yayınları.

Alabaş, Y., & Yılmaz, İ. (2018). Evaluation of candidate teacher training process from the viewpoint of mentor teachers. *Journal of Education and Training Studies, 6*(11), 12-26.

Alemdağ, E., & Erdem, M. (2017). Designing an e-mentoring program for novice teachers in Turkey and investigating online interactions and program outcomes. *Mentoring & Tutoring: Partnership in Learning, 25*(2), 123-150.

Anderson, E. M., & Shannon, A. L. (1988). Toward a conceptualization of mentoring. *Journal of Teacher Education, 39*(1), 38-42.

Aslan, B., & Öcal, S. D. (2012). A case study on mentoring in a teacher development program. *Journal of Education and Future, 2*, 31-48.

Atan, E. (2019). Köy Enstitülerinin Türkiye'nin kalkınmasındaki etkisi. In A. Ö. Türen (Ed.), *Köy Enstitüleri Dosyası* (pp. 150–161). İstanbul: Destek Yayınları.

Atay, D. Y. (2003). *The changing face of teacher education.* Ankara: Nobel Publications.

Atay, D. (2004). Collaborative dialogue with student teachers as a follow-up to teacher in-service education and training. *Language Teaching Research, 8*(2), 143-162. https://doi.org/10.1191/1362168804lr138oa

Bates, A.J., Drits, D. & Ramirez, L. (2011). Self-awareness and enactment of supervisory stances: Influences on responsiveness toward student teacher learning. *Teacher Education Quarterly, 38*(3), 69-87.

Bierema, L. L., & Merriam, S. B. (2002). E-mentoring: Using computer mediated communication to enhance the mentoring process. *Innovative Higher Education*, *26*(3), 211-227.

Binbaşıoğlu, C. (1995). *Türkiye'de eğitim bilimleri tarihi.* İstanbul: MEB.

Boz, N., & Boz, Y. (2006). Do prospective teachers get enough experience in school placement? *Journal of Education for Teaching, 32*(4), 353-368. https://doi.org/10.1080/02607470600981912

Brooks, V., & P. Sikes. (1997). *The good mentor guide: Initial teacher education in secondary schools.* Buckingham: Open University Press.

Bulunuz, N., Gürsoy, E., Kesner, J., Göktalay - Baltacı. S., & Salihoğlu., U. M. (2014). The implementation and evaluation of a clinical supervision model in teacher education in Turkey: Is it an effective method? *Educational Sciences: Theory & Practice*, *14*(5), 1823-1833. https://doi.org/10.12738/estp.2014.5.2085

Clutterbuck, D., & Ragins, B. R. (2002*). Mentoring and diversity*. Oxford: Butterworth-Heinemann.

Cross, C., Hubbard, K., Beverly, L., Gravatt, D., & Aul, A. (2020). The continuation of a mentoring network for pre-service teachers into early in-service years. *Issues in Educational Research, 30*(4), 1286–1309.

Cuenca, A. (2010). In loco paedagogus: The pedagogy of a novice university supervisor. *Studying Teacher Education: A Journal of Self-Study of Teacher Education Practices, 6*(1), 29-43. https://doi.org/10.1080/17425961003669086

Çakır, L., & Kocabaş, I. (2016). Mentoring in gifted student's education and a model suggestion. *Educational Process: International Journal, 5*(1), 76-90.

Çakıroğlu, E., & Çakıroğlu, J. (2003). Reflections on teacher education in Turkey. *European Journal of Teacher Education*, *26*(2), 253-264.

Darling-Hammond, L. (2012). *Powerful teacher education: Lessons from exemplary programs.* Hoboken, NJ: Wiley. Retrieved from: https://www.wiley.com/enus/Powerful+Teacher+Education%3A+Lessons+from+Exemplary+Programs-p9780787972738

Ekiz, D. (2003). Sınıf öğretmeni adaylarının öğretmen eğitimi modeller hakkındaki düşünceleri. *Milli Eğitim Dergisi, 158*, 146-160.

Ekiz, D. (2006). Mentoring primary school student teachers in Turkey: Seeing it from the perspectives of student teachers and mentors. *International Education Journal, 7*(7), 924–34.

Eraslan, L. (2008). *Yenilenen öğretmen yetiştirme programları bağlamında sınıf öğretmenliği programının değerlendirilmesi.* Retrieved on 29 August 2009 from https://www.memurlar-Net.

Erdoğan, S., & Haktanır, G. (2019). *Okul öncesi öğretmenleri için e-mentörlük temelli eğitim.* Ankara: Pegem Akademi.

Ersin, P., Atay, D., & Mede, E. (2020). Boosting pre-service teachers' competence and online teaching readiness through e-practicum during the COVID-19 outbreak. *International Journal of TESOL Studies, 2*(2),112-124. https://doi.org/10.46451/ijts.2020.09.09

Fraser, J. W. & Watson, A. M. (2014). *Why clinical experience and mentoring are replacing student teaching on the best campuses.* A White Paper. Woodrow Wilson National Fellowship Foundation. Retrieved from https://eric.ed.gov/?id=ED562067

Giorgetti, F. M. (2009). Training village children as village teachers for village work: The Turkish village institutes. *History of Education Review, 38(*2), 43-55. https://doi.org/10.1108/08198691200900012

Grossman, G. M., Sands, M., & Brittingham, B. (2010). Teacher education accreditation in Turkey: The creation of a culture of quality. *International Journal of Educational Development, 30*, 102–109.

Güncer, B. (1998). *Reconstructing of teacher education programs in faculties of education.* Ankara, Turkey: Council of Higher Education.

Gürsoy, E., Bulunuz, N., Baltacı Göktalay, Ş., Bulunuz, M., Kesner, J., & Salihoğlu, U. (2013). Clinical supervision model to improve supervisory skills of cooperating teachers and university supervisors during teaching practice. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi [Hacettepe University Journal of Education], Special issue (1)*, 191-203.

Gürsoy, E., Salihoğlu, U. M., & Kesner, J. (2016). Clinical supervision model in teaching practice: Does it make a difference in supervisors' performance? *Australian Journal of Teacher Education, 41*(11), 61-76.

Gürşimşek, I., Kaptan, F., & Erkan, S. (1997). General view of teacher education policies of Turkey. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education. Phoenix, AZ.

Güven, I. (2008). Teacher education reform and international globalization hegemony: Issues and challenges in Turkish teacher education. *International Journal of Social Sciences*, *3*(1), 1-17.

Harris, R. M. (1993). *The mentoring trap. Library Journal, 118*(17)*, 37-39.*

He, Y. Q. (2009). Strength-based mentoring in pre-service teacher education: a literature review. *Mentoring & Tutoring: Partnership in Learning, 17*(3), 263-275.

Howe, E. R. (2006). Exemplary teacher induction: An international review. *Educational Philosophy and Theory*, *38*(3), 287-297. https://doi.org/10.1111/j.1469-5812.2006.00195.x

Hudson, P. (2004). *Mentoring for effective primary science teaching.* Unpublished dissertation, Queensland University of Technology, Brisbane.

Izadinia, M. (2015). A closer look at the role of mentor teachers in shaping preservice teachers' professional identity. *Teaching and Teacher Education*, *52*, 1-10.

İbrahim, A. S. (2013). Approaches to supervision of student teachers in one UAE teacher education program. *Teaching and Teacher Education, 34*, 38-45. https://doi.org/10.1016/j.tate.2013.04.002

Kahraman, M., & Kuzu, A. (2016). E-mentoring for professional development of pre-service teachers: A case study. *Turkish Online Journal of Distance Education, 17*(3), 76-89. https://doi.org/10.17718/tojde.19973

Karaköse, T., Yirci, R., Uygun, H., & Özdemir, T. Y. (2016). Post-graduate students' perceptions regarding effectiveness of mentoring relationship at universities. *Revista de Cercetare si Interventie Sociala, 52*, 252-264.

Kartal, S., Özdemir, T., & Yirci, R. (2017). Mentorship needs of early career teachers working in rural regions. *Turkish Journal of Education, 6*(1), 30-40. https://doi.org/10.19128/turje.284833

Kırçiçek, H., & Yüksel, I. (2019). Uygulama akademisyenlerinin okul deneyimi ve öğretmenlik uygulaması dersleri ile ilgili görüşleri. *Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi, 39*(3), 1319-1345. https://doi.org/10.17152/gefad.556268

Koç, S. (1998). *Faculty-school partnership.* Ankara: Turkish Council of Higher Education

Köksal, H. (2016). *Köy enstitüleri sonrası imece ile yeniden köy enstitüleri.* İstanbul: Detay Yayıncılık.

Kuter, S., & Koç, S. (2009). A multi-level analysis of the teacher education internship in terms of its collaborative dimension in Northern Cyprus. *International Journal of Educational Development, 29*(4), 415-425. https://dx.doi.org/10.1016/j.ijedudev.2008.09.016

Kuzu, A., Kahraman, M., & Odabaşı, F. (2012). Mentörlükte yeni bir yaklaşım: E-mentörlük. *Anadolu Üniversitesi Sosyal Bilimler Dergisi, 12*(4), 173-183.

Lai, E. (2010). Getting in step to improve the quality of in-service teacher learning through mentoring, *Professional Development in Education*, *36*(3), 443-469. https://doi.org/10.1080/19415250903115962

Maynard, T., & J. Furlong. (1993). Learning to teach and models of mentoring. In D. McIntyre, H. Hagger & M. Wilkin (Eds.), *Mentoring: Perspectives on school-based teacher education,* (pp. 69–85). London: Kogan Page.

McIntyre, D. & Hagger, H. (1996). *Mentors in schools: Developing the profession of teaching.* London: David Fulton Publishers.

OECD. (2005). *Education at a glance 2005: OECD indicators.* Paris: OECD Publishing

Özdemir, T. Y. (2012). *E-mentoring model for maintaining the provincial education inspectors and assistant inspectors' professional development*, Unpublished Doctorate Dissertation, Firat University, Elazığ, Turkey.

Özdemir, T. Y., & Ozan, M. B. (2013). E-mentörlük sürecinin mente başarısına etkisi. *Bartın University Journal of Faculty of Education, 2*(1), 170-186.

Özkalp, E., Kirel, C., Sungur, Z., & Cengiz, A. A. (2006). The importance of mentoring on organizational socialization of the research assistants in Anadolu University. *Anadolu University Journal of Social Sciences, 6*(2), 55-70.

Özkan, R. (2018). Darülmuallimin'in ilk nizamnamesi ve Profesör Dr. Yahya Akyüz. *Akademik Matbuat, 2*(2), 1-15. https://dergipark.gov.tr/matbuat.

Paker, T. (2008). Öğretmenlik uygulamasında öğretmen adaylarının uygulama öğretmeni ve uygulama öğretim elemanının yönlendirmesiyle ilgili karşılaştıkları sorunlar. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi, 23*(1), 132-139.

Pena, C., Kimmel, J. & Curts, J. (2004). Online Mentoring of Pre-service Teachers. In R. Ferdig, C. Crawford, R. Carlsen, N. Davis, J. Price, R. Weber & D. Willis (Eds.), *Proceedings of SITE 2004--Society for Information Technology & Teacher Education International Conference* (pp. 626-631). Atlanta, GA, USA: Association for the Advancement of Computing in Education (AACE).

Penny, C., & Bolton, D. (2009). eMentoring: Connecting teacher candidates with k-12 students from urban schools*. International Journal of Technology in Teaching & Learning*, *5*(2), 169-181.

Portner, H. (2003). *Mentoring new teachers* (Updated edition). Thousand Oaks, CA: Corwin Press.

Quintana, M. G. B., & Zambrano, E. P. (2014). E-mentoring: The effects of pedagogical training of rural teachers with complex geographical accesses. *Computers in Human Behaviour, 30*, 629-636.

Redmond, P. (2015) *Online mentoring for secondary pre-service teachers in regional, rural or remote locations.* In: Research highlights in technology and teacher education 2015 (pp. 145-151). Waynesville, NC, United States: Association for the Advancement of Computing in Education (AACE).

Research, Planning and Coordination Board, (2001). *National education at the beginning of 2002.* Republic of Turkey, The Ministry of National Education. Retrieved from http://www.meb.gov.tr/indexeng.htm

Seferoğlu, S. S. (1996). *Elementary school teacher development: A study of professional development opportunities in Turkish schools*. Unpublished PhD thesis. Columbia University, Teachers College, New York.

Single, P. B., & Muller, C. B. (2001). When email and mentoring unite: The implementation of a nationwide electronic mentoring program. In Linda K. Stromei (Ed.), *Creating mentoring and coaching programs* (pp. 107-122). Alexandria, VA: American Society

for Training & Development. https://docplayer.net/11680519-When-email-and-mentoring-unite-the-implementation-of-a-nationwide-electronic-mentoring-program.html

Slick, S. K. (1998). The university supervisor: A disenfranchised outsider. *Teaching and Teacher Education, 14*(8), 821-834. https://doi.org/10.1016/S0742-051X(98)00028-6

Stevens, D. D., & Demirezen, G. (2002). Student mentor teachers in Turkey: New program challenges traditional relationships. Paper presented at the annual meeting of the American Educational Research Association. New Orleans, LA.

Tarman, B. (2008). *The European Union and the modernization of the Turkish education system*. Cambria Press. Amherst: New York.

Tarman, B. (2010). Global perspectives and challenges on teacher education in Turkey. *International Journal of Arts and Sciences, 3*(17), 78-96.

Tenenbau, H. R., Crosby, F.J., & Gliner, M. D. (2001). Mentoring relationships in graduate school. *Journal of Vocational Behavior, 59*(3), 326-341.

Tok, H. (2013). Mentor teachers in Turkish teacher education programs. *Anthropologist, 16(3*), 711-719.

Watson, S. (2006). Virtual mentoring in higher education: Teacher education and cyber-connections. *International Journal of Teaching and Learning in Higher Education, 18*(3), 168-179. http://www.isetl.org/ijtlhe/pdf/IJTLHE104.pdf

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York, NY: Cambridge University Press. https://doi.org/10.1017/CBO9780511803932.

Wood, E. D. (2007). *E-mentoring as a means to develop and retain expatriate managers*. Paper presented at International Research Conference in the Americas of the Academy of Human Resource Development. Indianapolis, IN.

Yaman, S. (2013). Supervision and the roles of supervisors within the context of preservice teacher education in Turkey. *International Journal of Academic Research, 5*(5), 227-232.

Yavuz, A. (2011). The problematic context of mentoring: evidence from an English language teaching department at a Turkish university. *European Journal of Teacher Education, 34*(1), 43-59.

Yaylı, D. (2008). Theory–practice dichotomy in inquiry: Meanings and preservice teacher–mentor teacher tension in Turkish literacy classrooms. *Teaching and Teacher Education, 24*(4)*, 889–900.

Yılmaz, M. (2011). Sınıf öğretmeni adaylarının öğretmenlik uygulaması dersini yürüten öğretim elemanlarına ilişkin görüşleri (The opinions of primary school teacher candidates about the teaching staff lecturing the teaching practice course). *Gaziantep Üniversitesi Sosyal Bilimler Dergisi, 10*(4), 1377-1387.

Yirci, R. & Kocabaş, I. (2010). The importance of mentoring for school principals: A conceptual analysis. *International Journal of Educational Leadership Preparation, 5*(2), 1-7.

Yirci, R., Karaköse, T., Uygun, H., & Özdemir, T. Y. (2016). Turkish adaptation of the mentorship effectiveness scale: A validity and reliability study. *Eurasia Journal of Mathematics, Science & Technology Education, 12*(4), 821-832.

YÖK (Higher Education Council), & World Bank. (1998). *Faculty–school partnership in national education development project pre-service teacher training.* Ankara: YÖK Publications.

Zhao, S., Wang, L., & Li, W. (2019*, December 1–5). *An improvement of mentoring scheme for young teachers in electronic and communication engineering.* Paper presented at IEEE International Conference on Engineering, Technology and Education, 2019: Yogyakarta, Indonesia. https://bproxy.bahcesehir.edu.tr:3190/10.1109/TALE48000.2019.9226025