

Pre-Service Teachers' Evaluation of Their Mentor Teachers, School Experiences, and Theory–Practice Relationship

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Abstract

This case study investigated practicum experiences of pre-service teachers by focusing on their evaluation of mentor teachers, school experiences, and theory–practice relationships. Interviews were conducted with six teacher candidates, and observations in the participants' practice schools were made. The results revealed that mentor teachers had both positive and negative qualities with respect to social support, professional support, and role-modeling mentoring functions. Moreover, pre-service teachers reported that they mostly experienced or felt difficulty in classroom management; parallel with this difficulty, their learning gains in classroom management were the highest. These teachers also emphasized that there was no relationship between theory and practice in teacher education and that developmental psychology and communication courses and those presenting teaching-related cases were effective at building readiness for the teaching profession. Based on the findings, several suggestions for future practices were proposed in the study.

Key words: Teacher education; cooperating teacher; teaching practice; student teachers; professional development

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Introduction

The teaching practicum is a crucial component of teacher education because pre-service teachers have the opportunity to apply theoretical knowledge learned in courses to real classroom settings (Allen & Wright, 2014; Çelik, 2008; Eryaman, 2007, 2008; Nonis & Tan, 2011). According to case studies regarding prospective teachers' experiences during their final years of teaching preparation, learning to teach is also a complex process shaped by not only personal factors, such as pre-service teachers' beliefs about teaching and learning, but also situational factors, such as wants and feedback from mentors and course teachers (Borko & Mayfield, 1995). Therefore, different stakeholders, including cooperating teachers or mentors and course instructors, play significant roles in pre-service teachers' learning.

Cooperating teachers possess different roles and responsibilities in the teaching practicum. They provide feedback and vocational support, model practices, give support for reflection, and serve as agents of socialization for pre-service teachers (Riedler & Eryaman, 2016; Clarke, Triggs, & Nielsen, 2014). The roles and responsibilities of mentor teachers can be examined with Scandura's (1992) framework for mentoring, which consists of vocational, social, and role-modeling mentoring functions. In vocational and professional functions, the mentor provides coaching, exposure, visibility, career advice, and information and prepares learners for the profession. Social support focuses on counselling and interpersonal relationships. In role modeling, mentors share their opinions and behaviors with their protégés and the protégés in turn decide whether to follow their mentor's model. The findings of different research studies conducted with pre-service teachers emphasize the importance of three functions in this mentoring framework. For example, Torrez and Krebs (2012) indicated that teacher candidates define successful mentor teachers as those who are effective teachers, who create positive relationships with teacher candidates, and who support them during the practicum. Similarly, in Izadinia's (2016) study, open relationship, feedback, encouragement, and support were found the most crucial factors in a mentoring relationship based on pre-service and mentor teachers' opinions. Arkün-Kocadere and Aşkar (2013) also revealed that pre-service teachers negatively evaluate mentor teachers who are not good role models, are not aware of their responsibilities, and are not willing to collaborate. Furthermore, Eraslan (2009) revealed that while learning to teach, prospective teachers place importance on mentor teachers' experience and willingness to teach. While support from mentor teachers increases teaching self-efficacy of pre-service teachers (Moulding, Stewart, & Dunmeyer, 2014), mentor teachers' non-fulfilment of their responsibilities negatively affects practicum experiences of prospective teachers. To illustrate, pre-service teachers become demotivated to teach when they feel unsupported and they experience high levels of stress due to disruptive students and high workloads during the practicum (Chaplin, 2008). Also, mentor teachers' rare and nonconstructive feedback on teaching practices negatively affect student teachers' learning during practicum (Aydın & Akgün, 2014; Kirbulut, Boz, & Kutucu, 2012; Paker 2008; Valencia, Martin, Place, & Grossman, 2009). Therefore, the characteristics of mentor teachers are critical factors that influence pre-service teachers' experiences during the practicum.

Another factor affecting practicum experiences of pre-service teachers relates to teacher education. It is necessary for teacher candidates to have deep understanding of theory and practice to enact their knowledge (Eryaman & Riedler, 2009; Meijer, Graaf, & Meirink, 2011). However, helping pre-service teachers to integrate their knowledge with experiences in their teaching practices is a challenge for teacher educators (Sutherland & Markauskaite, 2012). It is a durable problem for teacher-preparation programs to fill the gaps between teacher education and the practicum experiences (Kessels & Korthagen, 1996; Zeichner, 2010). Due to these gaps, novice teachers experience reality shocks during their first years of teaching (Korthagen, Loughran, & Russell, 2006). To illustrate, Fazio and Volante (2011) and Chiang (2008) revealed that most pre-service teachers were disappointed due to incongruence between their ideal teaching environment and reality. Eraslan (2009) also found that prospective math teachers had difficulty defining the relationship between the content of courses in universities and the content of math instruction in schools. Due to discrepancies

between expectations and reality, teacher candidates face hardships when transferring their knowledge into real classroom settings (Arkün-Kocadere & Aşkar, 2013).

In addition to challenges related to mentor teachers and reality shock, pre-service teachers face pedagogical problems in their teaching practice. Research reveals that one major problem for teacher candidates is classroom management (Baştürk, 2009; Ferber & Nillas 2010; Goh & Matthews, 2011; Koç, 2012; Koç & Yıldız, 2012; Taşdere, 2014). Applying instructional methods in real classrooms is another area of concern for prospective teachers (Goh & Matthews 2011; Taşdere, 2014). On the other hand, building relationships with students (Becit, Kurt, & Kabakçı 2009; Eraslan 2009; Ferber & Nillas 2010; Koç 2012), feeling like a real teacher (Eraslan, 2008; Eraslan 2009), and evaluating the applicability and effectiveness of teaching methods (Becit, Kurt, & Kabakçı, 2009) are some positive experiences teacher candidates have. Moreover, studies indicate that pre-service teachers' self-efficacy (Caires, Almeida, & Vieira, 2012; Can, 2015; Erdem 2008; Gurwitsch & Metzler, 2009; Knoblauch & Woolfolk, 2008; Öksüz & Çoşkun, 2012), and pedagogical and content knowledge (Chien, 2015) improve after the teaching practicum, resulting in teachers feeling more prepared and more willing to teach students (Ronfeldt & Reininger, 2012).

Overall, the teaching practicum is a complex and dynamic process that affects pre-service teachers' professional development both positively and negatively. Hascher, Cocard, and Moser (2004) stated that the quality of the practicum and long-term learning outcomes during the practicum are very uncertain. There is a lack of research regarding how pre-service teachers perceive their professional development in the process of learning to teach (Meijer et al., 2011). In particular, Yaylı (2008) noted that it is necessary to investigate pre-service teachers' transition from theory to practice more deeply and the effect of pre-service teacher-mentor teacher relationships on this process. Studies regarding teacher candidates' in-course and field-based experiences in their profession enable teacher-preparation programs to design curriculums more effectively to mitigate the gap between what is taught and what is learned (Schmidt, 2010). Considering aforementioned gaps in the literature, the aim of this case study is to investigate prospective information and communication technologies (ICT) teachers' evaluations of their mentor teachers, school experiences, and theory-practice relationships in teacher education. The research questions guiding the study are as follows:

- (1) How are mentor teachers with respect to mentoring functions during the practicum?
- (2) What are the prospective ICT teachers' positive and negative experiences during one semester of the practicum?
- (3) What are the opinions of prospective ICT teachers regarding the relationship between theory and practice in teacher education?

Method

Research Design

This research was designed as a case study in which factors related to a case (e.g., context, individuals, events, and processes) were investigated from a holistic viewpoint, and the focal point was how those factors affect related cases or are affected in turn (Yıldırım & Şimşek, 2013). Case study research includes in-depth, detailed data collection processes in which different data sources (e.g., interviews, observations, documents, and reports) are utilized (Creswell, 2007). In this study, the practicum experiences of pre-service teachers were examined by considering different stakeholders, including cooperating teachers, other teachers, administrators, students, and courses taken at university. Data were gathered through interviews and observations.

Participants

The participants were six pre-service ICT teachers who were senior students at the Computer Education and Instructional Technology department in a state university in Turkey taking the School Experience I course during the 2014–2015 fall semester. In School Experience I course, teacher candidates are able to comprehend concepts regarding teaching profession, improve their knowledge and practices through their school experiences, and gain characteristics of an effective teacher. To this

end, the pre-service teachers in the study attended theoretical classes one hour a week, and they made observations and helped their cooperating teachers during class four hours a week in one semester. Moreover, they conducted one lesson in company with their mentor teachers in their practice schools. They also wrote reflective reports on their school experiences, and discussed teaching-related cases with their friends for the requirements of School Experience I course. Personal information about participants is given in Table 1.

Table 1. *Personal Information about Participants*

Participant	Gender	Type of practice school	Plan to be teacher
P1	Female	Secondary school	✓
P2	Female	Secondary school	✓
P3	Female	Vocational high school	X
P4	Male	Vocational high school	✓
P5	Male	Vocational high school	✓
P6	Male	Private primary school	✓

Maximum variation sampling strategy among purposeful sampling methods was used in the study to select the participants. According to Patton (2002), qualitative studies gather data from purposefully chosen samples. In maximum variation sampling, the researcher considers different characteristics of the samples to reveal similarities and differences among various cases. While selecting participants for the study, female and male pre-service teachers in different practice schools (including vocational high schools, secondary schools, and private schools) were chosen. Moreover, there was one pre-service teacher who did not plan to teach after graduation (Table 1).

Data Collection Instruments

Interview protocol. The interview protocol consisted of 14 open-ended questions to get information from participants regarding the above-mentioned research questions. For each research question, at least three interview questions were prepared. In addition, introductory questions related to participants' backgrounds and current lives were posed at the beginning of each interview to establish rapport between the researcher and the participants. Alternative questions were also added for each question. Furthermore, prompts to gain more detailed information were included in most questions. Besides the knowledge questions and unclear questions, short answer questions were avoided to support effective interviewing for each case. While preparing the interview protocol, expert evaluation was taken five times, and revisions were made to create a more-valid data collection instrument. The interviews conducted by the first author lasted approximately 30 minutes, and they were recorded on a tape-recorder and transcribed electronically.

Observation protocol. In addition to the interview protocol, the researchers prepared an observation protocol related to mentors' and student teachers' practices in the classroom to obtain the participants' first-hand experiences at their sites and to record data the participants might not have felt comfortable revealing in interviews (Creswell, 2009). For the observation protocol, the themes the observer paid attention to during observations were determined based on research questions and were described accordingly. After receiving consent from the cooperating teachers in practice schools and the pre-service teachers in the study, observations lasting approximately one hour were conducted by the first author. During the observations, the first researcher was a non-participant observer. Cooperating teachers, pre-services teachers, and students were the individuals observed during lessons in the practice schools. Their actions and the researcher's reflections were written on the observation sheet. Data obtained from observation notes were utilized to supplement interview data and to enable triangulation through the employment of more than one data-collection method.

Data Analysis

The content analysis method was used for data analysis. In content analysis, similar data are gathered under themes; these data are presented and interpreted in a format that readers can easily understand (Yıldırım & Şimşek, 2013). Data were analyzed using four steps, following Yıldırım and Şimşek (2013). In these steps, researchers code data, find themes, arrange codes and themes, and identify and interpret findings. First, the researcher transcribed data obtained from the interviews and read the observations carefully several times; then, codes were derived. For research question 1, an existing framework was used to find themes. Themes for the other research questions were determined based on the codes derived by the researchers. After the codes were arranged under themes or categories, their reliability was investigated. For that aim, 10% of the interview data and code sheets were presented to an expert in qualitative research, and the expert coded interview statements by selecting codes from a code sheet. Cohen's kappa coefficient was calculated at 0.77.

Validity and Reliability

There are two main dimensions of validity and reliability: external and internal. Internal validity in qualitative research relates to the extent to which conclusions relating to observed events and phenomena reflect the real situation (Yıldırım & Şimşek, 2013), while external validity refers to the generalizability of results (Merriam, 2013). Internal reliability pertains to whether other researchers obtain the same results in data coding as the original researcher suggests, while external reliability relates to whether the research will reveal the same results in similar contexts (LeCompte & Goetz, 1982). To ensure the reliability and validity of qualitative research, different strategies have been adopted here. First, a triangulation strategy was used to enhance internal validity (Lincoln & Guba, 1985). Triangulation makes a study stronger by employing different data sources, researchers, and data collection methods (Patton, 2002). In this study, data were collected from not only interviews but also observations to support or corroborate findings obtained from different data collection methods. Moreover, the internal reliability of the research was investigated by calculating Cohen's kappa coefficient, as mentioned in the data analysis. Since the coefficient exceeds the threshold (0.70) for a reliable research (Frankel, Wallen, & Hyun, 2012), it can be concluded that the study is reliable.

Results

The interview and observation protocols were prepared based on research questions, and the data analysis revealed three main themes: the mentoring functions of cooperating teachers; positive and negative experiences of prospective teachers during the practicum; and the opinions of prospective ICT teachers regarding the relationship between theory and practice in teacher education. The findings for these themes are explained in detail below.

Mentoring Functions of Cooperating Teachers

To analyze data related to qualities of cooperating teachers with respect to mentoring functions, Scandura's (1992) mentoring functions framework, consisting of social support, professional support, and role modeling dimensions, was considered. Table 2 shows how cooperating teachers fulfilled these mentoring functions or did not.

Table 2. *Mentoring Functions of Cooperating Teachers*

Theme	Category	Code	Frequency
Social Support	Positive	Caring pre-service teachers' problems	8
		Good communication with pre-service teachers	6
		Encouraging pre-service teachers to teach during practicum	1
Professional Support	Positive	Weak communication with pre-service teacher	7
		Giving information about teaching profession	4
		Making teaching desirable	1
	Making suggestions about teaching	1	
Negative	Not introducing pre-service teachers with students	2	
Role Modelling	Positive	Teaching method (demonstration, analogy)	5
		Good communication with students	5
		Getting attention of the students	3
		Displaying interest to students' learning	3
		Encouraging students to participate in classroom discussions	1
		Being loved by the students	1
		Good communication with inclusive student	1
		Creating positive classroom climate	1
		Knowing students' characteristics in the classroom	1
		Negative	Indifference to misbehaviours
	Inefficacy in getting attention of the students		6
	Poor communication with students		3
	Addressing students as girls in the classroom		3
	Ineffective teaching method		2
	Poor time management		2
	Poor plan of classroom activities		1
	Lack of instructional materials	1	
Not being respected by students	1		
Lack of motivators	1		

With respect to social support functions, the most emphasized theme is mentor's care for pre-service teachers' problems. Caring mentor teachers expended effort or showed willingness to derive solutions to the problems teacher candidates faced during practicum. For example, one mentor who gave her telephone number to the teacher candidate to use when problematic situations regarding the practicum arose was evaluated positively with respect to social support. It was also found that some mentor teachers communicated well with prospective teachers, while others did not. For example, it was observed that one mentor, whom the student teacher evaluated negatively with respect to social support, was unwilling to answer teacher candidates' questions during breaks. Moreover, one mentor did not meet pre-service teachers before and after classes, as participant 4 stated during an interview. Those two pre-service teachers also stated that other ICT teachers and peers in the practicum gave more social support to them than their mentor teachers did, although others rated their mentor teachers as the best. The perspective of a pre-service teacher regarding her mentor's provision of social support is as follows:

We could not communicate with our cooperating teacher after lessons. She did not make any conversation. Practicum has finished without any conversation. (P3, Weak communication with pre-service teacher)

In professional support function, some mentor teachers in the study provided information about the teaching profession, made teaching desirable, and offered suggestions. With respect to the visibility of pre-service teachers, one teacher did not introduce the pre-service teachers to students in the classroom. As a result, the students in the classroom in which the teacher candidate was not introduced by the mentor teacher called the pre-service teacher “you” rather than addressing her as a teacher. In the interview with this pre-service teacher, it was noted that the aforementioned situation impeded communication between students and the pre-service teacher.

Mentor teachers were also evaluated with respect to their role-modeling function. The mentor teachers’ teaching methods (mostly demonstration), good communication with students, methods to gain students’ attention, and displaying interest in students’ learning were, for the most part, modeled by the teacher candidates. Encouraging students to participate in classroom discussions, being loved by the students, good communication with inclusive students, creating a positive classroom climate, and knowing students’ characteristics in the classroom are other observed positive qualities of mentor teachers. Indifference to misbehaviors, inefficacy in gaining the attention of the students, poor communication with students, addressing students as “girls” in the classroom, ineffective teaching methods, and poor time management are behaviors observed in the classroom that are frequently evaluated as negative by pre-service teachers. Moreover, mentors’ poor planning of classroom activities, lack of instructional materials, not being respected by students, and lack of motivators were not modeled by the pre-service teachers. Therefore, it can be concluded that cooperating teachers may not successfully model all desirable qualities for pre-service teachers. One perspective of a pre-service teacher is as follows:

There was an inappropriate model with respect to time management. 20 minutes are for coursework and 20 minutes are for break. (P4, Poor time management)

Furthermore, data analysis showed that the pre-service teachers in the vocational high school reported almost all the negative role modeling mentoring functions. In observations, it was noted that cooperating teachers in these schools were deficient in role modeling, especially with respect to classroom management. Although inefficacy in classroom management was a problem for mentors in all types of practice schools, observations suggested that it was more salient in vocational schools. To illustrate, the mentor teacher of participant 3 provided different warnings in the classroom to attract the attention of the students, such as the following sentences:

If you don’t stop talking, I will lower your grades... What can I do here? Do you want me to make gymnastics to get your attention? (M3)

Prospective ICT Teachers’ Positive and Negative Experiences during the Practicum

The positive and negative experiences of prospective ICT teachers during one semester of practicum are shown in Table 3.

Table 3. *Prospective ICT Teachers' Positive and Negative Experiences during One Semester of Practicum*

Category	Code	Frequency
Negative Experiences	Encountering/ feeling difficulty	In classroom management 13
		In communicating with students 1
		In preparing lesson plan 1
	Seeing teaching profession as monotonous	1
	Administrators' negative communication with pre-service teachers	1
Positive Experiences	Learning outcomes on	How to manage classroom 5
		How to communicate with students 1
		How to get attention of students 1
		How to arrange lab 1
	Other ICT teachers' positive communication with pre-service teachers	4
	Observing or communicating with students	4
	Administrators' positive communication with pre-service teachers	1
Being called as a teacher by the students	1	

Pre-service teachers encountered difficulties during one semester of school experience. The difficulty expressed most often relates to classroom management. In observations, it was also noted that while one teacher candidate lectured in practice school, the noise level in the classroom was too high in the learning activity and the mentor teacher had to intervene in that situation. The views of two pre-service teachers who practice in vocational and secondary schools on classroom management are as follows:

While I was lecturing, I realized that classroom management is too difficult for the students in vocational high school. They talk about topics unrelated to the course in the classroom and they use slang words frequently. (P4)

One time I was alone in the classroom. The students didn't listen to me and stop talking, and then I hit the table. It is difficult and they are too active... It is hard to manage them. (P1)

Other negative experiences described by pre-service teachers are encountering/feeling difficulty in communicating with students and preparing lesson plans, seeing the teaching profession as monotonous, and witnessing administrators' negative communications with pre-service teachers. In addition to negative experiences, teacher candidates also described their positive experiences. After one semester of practicum, the pre-service teachers' knowledge and abilities in classroom management, communication with students, getting the students' attention, and arranging laboratory environment improved. Along with encountering/feeling difficulty in classroom management, learning how to manage a classroom was the positive experience most frequently described by teacher candidates. One view expressed by one pre-service teacher is as follows:

According to my observations, student misbehaviors are related to the teacher-student relationship. In my opinion, students should both love their teachers and show respect to them. If there is not respect, nothing will derive successful results. (P3)

Moreover, as seen in Table 3, other stakeholders, i.e., ICT teachers, administrators, and students, play a significant role in the experiences of pre-service teachers in the practicum. Positive communication with other ICT teachers and administrators, observing or communicating with

students, and being called “teacher” by students were positive experiences for pre-service ICT teachers.

Opinions of Prospective ICT Teachers regarding the Relationship between Theory and Practice in Teacher Education

Findings regarding the opinions of prospective ICT teachers on the relationship between theory and practice in teacher education are presented in Table 4.

Table 4. *Opinions of Prospective ICT Teachers Regarding Relationship between Theory and Practicum Experiences*

Opinion	Frequency
No relationship between theory and practice because of	9
Conflict between content of the courses and needs of ICT teachers	4
Mentor teachers’ ineffectiveness in role modelling	2
Lack of applicability of information learnt in the courses	2
Difference between student profile in schools and in books	1
Qualities of the courses beneficial for teaching	15
Teaching-related cases presented in the course	7
Identifying student characteristics	5
Learning how to communicate with students	3
Suggestions to strengthen relationship between theory and practice	12
Practicum for a longer period in teacher education	3
Relating content of existing courses to needs of ICT teachers	3
Increase in the number of courses related to teaching	3
Increasing practice hours of courses	1
Preparing course content related to administrative works	1
Integrating topics related to school experience to other courses	1

All participants denied that there is a relationship between theory and practice for several reasons. The most frequently cited reason was conflict between the content of the courses and the needs of ICT teachers. One view of the pre-service teachers about this finding is as follows:

There is no relationship between courses in university and school. We learn how to manage a project or how to write an article, but school is very different. (P4, Conflict between content of the courses and needs of ICT teachers)

Moreover, mentor teachers’ ineffectiveness in role modeling had a negative effect on building relationships between theory and practice. The lack of applicability of the information learned in courses and the difference between student profiles in schools and that mentioned in the books are other inhibiting factors in building the relationship. Despite the discrepancy between theory and practice, pre-service teachers expressed that some courses were beneficial for their practicum. One quality of these courses is related to their teaching method, which is based on teaching-related cases. In addition, developmental psychology courses helped them identify student characteristics, and communication courses played a role in developing effective communication with students. Pre-service teachers’ statements on the qualities of courses that are beneficial for teaching are as follows:

In the school experience course, we complete scenarios related to teaching. One case is given and we complete it. This method motivates us to become teachers and prepares us for the profession even if we do not implement them. (P4, Teaching-related cases presented in the course)

Developmental psychology course is effective. I learnt the developmental stages of the students; therefore, I can prepare materials and plan lessons according to characteristics of the students. (P1, Identifying student characteristics)

For a stronger relationship between theory and practice, several suggestions were proposed. The ones most frequently expressed were that the practicum should be held during the other years of the teacher education program, course content should be congruent with the needs of ICT teachers, and the number of pedagogical courses should be increased. Other suggestions included that practice hours of courses should increase, course content related to administrative works should be prepared, and topics in the school experience course should be integrated to other courses. Some of the participants' views are as follows:

Universities make contact with schools only for the practicum course. It is wrong in my opinion. Universities should make a longer deal with schools, and the practicum period should be longer. (P5)

The content of the hardware course should be better. We will solve hardware problems encountered in the schools, but the instructor in the university showed only the inside of the computer and told the names of the hardware components. S/he did not teach their functions and what we can do when a problem arises. (P1)

Discussion and Recommendations

Teaching practicum involves different stakeholders, contexts, and experiences. It is a complex process that can be investigated from various perspectives. In this study, prospective ICT teachers' evaluations of mentor teachers, school experiences, and the theory–practice relationship were examined. For this aim, interviews were conducted with six pre-service teachers and observations were conducted in the practice schools of the participants.

The study firstly indicates that mentor teachers have both positive and negative qualities with respect to social support, professional support, and role-modeling mentoring functions. In social support function, it was found that while some mentors care about pre-service teachers' problems related to the practicum and have good communication with teacher candidates, some have weak communication. Similar findings regarding weak communication and lack of collaboration between pre-service teachers and mentors were reported in the research conducted by Arkün-Kocadere and Aşkar (2013) and Taşdere (2014). Hence, it is crucial that mentor teachers be trained and encouraged to establish a positive relationship between them and prospective teachers not to affect practicum experiences of teacher candidates negatively. This study also revealed that pre-service teachers whose mentor teachers did not fulfil their responsibilities in terms of giving social support obtained social support from other stakeholders in the practicum, such as other teachers in school and their peers. Therefore, it can be suggested that based on the qualities of mentor teachers from the point of social support, the importance of other stakeholders being involved in the practicum could be considered more seriously for teacher candidates.

In addition to social support, mentor teachers are expected to give professional support. It was found that some of the cooperating teachers in the current study provided information about the teaching profession, made teaching desirable, and offered suggestions on teaching within the scope of professional support. On the other hand, one mentor teacher did not introduce the pre-service teachers to students in the classroom, and the pre-service teacher evaluated this situation negatively. Furthermore, this negatively affected the communication between students and pre-service teachers and resulted in students calling the pre-service teacher “you” rather than “teacher.” Therefore, it is advisable that mentor teachers give importance to introduce prospective teachers to the class at the

beginning of the semester to both increase visibility of pre-service teachers in classroom and create a positive communication between teacher candidates and students.

Role modeling is another function of mentoring. Cooperating teachers' teaching methods, good communication with students, and their techniques for getting the attention of learners and having interest in students' learning are enabling factors of seeing mentor teachers as role models. Inhibiting factors are their indifference to misbehaviors of students, inefficacy in getting the attention of students, poor communication with students, addressing students as "girls" in the classroom, ineffective teaching methods, and poor time management. Similarly, the pre-service teachers in Yılmaz, Şendurur, and Şendurur's (2016) study highlighted their mentor teachers' teaching methods, interaction with students, and classroom management in their school experiences. These factors can be evaluated as characteristics of a successful or unsuccessful teacher through the eyes of the prospective teachers. Therefore, it can be suggested that mentor teachers' instructional strategies, classroom management skills, and communication or interaction with their students could be critical constructs enabling teacher candidates to take them on as role models. Another striking finding regarding the role-modeling function of mentor teachers is that mentors in vocational high school were evaluated negatively with regard to their classroom management skills. In observations, it was noted that students in these schools show several misbehaviors and that mentors have difficulty preventing them and gaining the attention of the students. This situation can arise from student profiles in vocational high schools in Turkey. The majority of the students with low success rates in secondary school continue their education in vocational high schools, and they tend to be more reluctant to learn compared with students in other types of schools. Therefore, more classroom misbehavior in these schools might be expected. Here, it is necessary for teachers in vocational high schools to put in more effort to prevent misbehaviors and to seek the attention of the learners. Therefore, some professional development workshops can be arranged for those teachers to provide help on how classroom management problems can be handled effectively.

The positive and negative experiences of pre-service teachers during one semester of the practicum were also investigated. The study reveals that these pre-service teachers experience or feel difficulty for the most part in relation to classroom management. Several studies support this finding (Baştürk, 2009; Ferber & Nillas, 2010; Goh & Matthews, 2011; Koç, 2012; Koç & Yıldız, 2012; Taşdere, 2014). Hence, it is crucial that teacher education programs consider how to improve prospective teachers' knowledge and skills on classroom management. Case-based instruction, which can be one way to minimize prospective teachers' potential problems in classroom management based on participants' opinions, is offered and discussed in this paper later. Communicating with students and preparing lesson plans are two other difficulties the pre-service teachers faced. Moreover, one student realized that the teaching profession is monotonous and is not appropriate for her. Likewise, one of the teacher candidates in Kirbulut, Boz, and Kutucu's (2012) study claimed that he did not fit to teaching profession because of not having necessary characteristics to be teacher after his school experiences. On the other hand, Ronfeldt and Reininger (2012) state that pre-service teachers become more willing to teach because of a practicum experience. This study suggests that the practicum can be a turning point for prospective teachers making career decisions. In contrast to negative experiences, observing or communicating with students was a positive experience for pre-service teachers in the practicum. Similar findings have been reported in previous research (Becit, Kurt, & Kabakçı, 2009; Eraslan, 2009; Ferber & Nillas, 2010; Koç, 2012). Furthermore, in the current study, prospective teachers learned how to manage classrooms, communicate with students, gain the attention of students, and arrange lab environments through their practicum observations. In other words, all pre-service teachers, including those whose mentors did not act as role models for them, developed professionally after they observed what works and does not work in the classroom. Therefore, it can be concluded that a real classroom environment can present rich learning opportunities for prospective teachers even when mentors do not serve as role models.

In this study, participants' opinions on the relationship between theory and practice were obtained. None of the pre-service teachers saw a relationship here, mostly due to a discrepancy between the content of the courses and the needs of ICT teachers. Mentor teachers' ineffectiveness in

role modeling is another reason for the weak relationship between theory and practice, causing the pre-service teachers to feel disappointment during their first semester of school experience. In addition, teacher candidates realized that teaching methods learned during university courses were not applicable to real classroom settings due to difficulty in creating a constructivist learning environment for the classrooms observed. Moreover, it was found that student profiles in one of the practice schools differ from those mentioned in the books. Incongruence between ideal teaching environments and reality was also reported in several studies (e.g., Chiang, 2008; Fazio & Volante, 2011; Yılmaz, Şendurur, & Şendurur, 2016). Hence, it can be inferred that encountering discrepancies between expectations and reality, and having disappointment after that can be prevailing school experiences for pre-service teachers in the current teacher education contexts.

Although the pre-service teachers in the current study stated that there is a gap between theory and practice, they also stated that some courses are useful for their school experiences. It was found that developmental psychology and communication courses help pre-service teachers identify student characteristics during the practicum and help them learn how to communicate with students. Moreover, the courses that present teaching-related cases were viewed as effective in bridging the gap between theory and practice. The use of cases in teacher education allows teacher candidates to apply their knowledge of educational theories and principles into real classroom situations (Ching, 2014). The effectiveness of case-based instruction on setting theory–practice relationships was noted in related studies (e.g., Ching, 2014; Koc, Peker, & Osmanoglu, 2009). Therefore, it is advisable that pedagogy courses be enriched with teaching related cases to narrow the gap between theory and practice.

Finally, prospective ICT teachers proposed several suggestions, especially with regard to teacher education programs, to engender a stronger relationship between theory and practice. There are gaining school experience during all years of teacher education, receiving course content parallel to the needs of ICT teachers, increasing the number of pedagogical courses and practice hours of courses, and preparing course content related to administrative works. These suggestions highlight the importance of the relevance of courses in teacher education to real school experiences. Considering these suggestions, teacher education programs can be reviewed to prepare prospective teachers for real classrooms well.

To sum up, the qualities of mentor teachers and the structure and content of teacher-education programs influence pre-service teachers' school experiences. Several suggestions follow from these results. First, mentor teachers in practicums should be chosen from teachers who are successful in their professions. For this aim, cooperating teachers can be evaluated by prospective teachers based on criteria, such as role modeling and providing support to pre-service teachers, to determine their effectiveness in mentoring. Successful teachers could be mentors of future teacher candidates. Second, since classroom management is difficult for most of the novice teachers and case-based instruction is a teaching method useful to build relationship between theory and practice, instructors of classroom management course can employ this teaching method in their lessons. Finally, in relation to the suggestions of pre-service teachers, the teaching practicum in Turkey should not be limited to final-year students. Readiness for teaching can be fostered by arranging the content of courses in teacher education programs in such a way as to cover the needs of in-service teachers. In addition, the number of elective courses related to teaching and pedagogy could be increased.

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