

## T.C. YEDITEPE UNIVERSITY

## GRADUATE SCHOOL OF EDUCATIONAL SCIENCES

MASTER'S PROGRAM IN ENGLISH LANGUAGE EDUCATION

# PRE-SERVICE EFL TEACHERS' PERCEIVED AND ACTUAL REFLECTIVITY LEVELS ON REPORTS WRITTEN DURING PRACTICUM

SUNA ÇELIK

ISTANBUL, 2019

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Suna Çelik

ISTANBUL, 2019

#### THESIS SUBMISSION AND APPROVAL FORM



#### YEDİTEPE UNIVERSITY INSTITUTE OF EDUCATIONAL SCIENCES DIRECTORATE

#### THESIS SUBMISSION and APPROVAL FORM

SUBJECT: Pre-service EFL Teachers "Perceived and Actual Reflectivity devels on Reports Written During Practicum

APPROVAL:

Dr. Gor. Uy. Evrim Everyik-Agden

(Signature)

Dr. Jgr. <u>Upsi Sedat BECER</u>EN (Member)

Dr. Opr. U. Leynep Koseflu (Member)

(Signature)

SUBMITTED BY DATE OF THESIS DEFENSE DATE OF THESIS APPROVAL : :

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last Name: Suna Çelik

Signature:

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## ABBREVIATIONS

- PST Pre-service Teachers
- EFL English as Foreign Language



#### ABSTRACT

## PRE-SERVICE EFL TEACHERS' PERCEIVED AND ACTUAL REFLECTIVITY LEVELS ON REPORTS WRITTEN DURING PRACTICUM

Reflective thinking in teacher education programs has been considered one of main practices that enables pre-service teachers to think on the planning, implementation and evaluation processes of teaching. Besides, practicum experience supported with reflective tasks provides prospective teachers with an ample opportunity to put theoretical knowledge into practice. However, reflection manifests itself in certain levels, and perceived and actual reflectivity levels may not always match. Therefore, the present study investigates pre-service EFL teachers' perceived and actual levels of reflectivity on a variety of tasks assigned during their practicum. The quantitative data was collected from 70 pre-service teachers through the Profile of Reflective Thinking Instrument developed by Taggart and Wilson (2005). The qualitative data showing their actual levels of reflectivity, however, came from a total of 207 reflective tasks (namely 4 self-evaluation, 4 peer-evaluation, 14 weekly observation, and one overall evaluation reports) written by 9 of these pre-service teachers selected on the basis of scores they obtained on the instrument to represent technical, conceptual, and dialectical levels of reflectivity.

The results showed that pre-service teachers' perceived levels of reflectivity were mostly at contextual level followed by dialectical and technical levels. However, in their reports they mostly focused on the description of their activities and objectives as well as technical issues like planning and time management, which made their reflections at technical level unlike their perceptions. Besides, their reflectivity has shown some variance depending on the type of task. In the overall evaluation reports in which they evaluated the practicum in response to some guiding questions they made more advanced level reflections. In light of these findings, the study discussed the importance of integrating awareness raising activities and reflective tasks to initial teacher education programs to improve pre-service teachers' actual reflectivity.

Key words: Reflective thinking, Reflectivity level, Perceived and actual reflectivity levels, reflective reports, practicum

#### ÖZET

# İNGİLİZCE ÖĞRETMEN ADAYLARININ ÖĞRETMENLİK UYGULAMASINDA YAZDIKLARI RAPORLARDA ALGILANAN VE GERÇEK YANSITMA DÜZEYLERİ

Öğretmen eğitimi programlarında yansıtıcı düşünme, öğretmen adaylarının öğretimin planlama, uygulama ve değerlendirme süreçleri üzerinde düşünmesini sağlayan ana uygulamalardan biridir. Ayrıca, yansıtıcı etkinliklerle desteklenen öğretmenlik uygulaması tecrübesi, öğretmen adaylarına teorik bilgileri uygulamaya koymak için fırsat sunar. Fakat, yansıtıcı düşünme belirli seviyelerde kendine göstermektedir. Bu nedenle, bu çalışma öğretmen adaylarının algılanan ve öğretmenlik uygulaması sırasında verilen çeşitli yansıtıcı etkinlikler üzerindeki gerçek yansıtma düzeylerini araştırmaktır. Nicel veriler, Taggart ve Wilson (2005) tarafından geliştirilen yansıtıcı düşünme enstrümanı vasıtasıyla 70 öğretmen adayından toplanmıştır. Gerçek yansıtıcı düşünme düzeylerini gösteren nitel veriler, 9 öğretmen adayının yazdığı toplam 207 (4 öz-değerlendirme, 4 akran değerlendirme, 14 haftalık gözlem ve bir genel değerlendirme) yansıtıcı raporlardan gelmektedir. Öğretmen adaylarının 9'u teknik, bağlamsal ve diyalektik yansıtma düzeyleri, yansıtıcı düşünme enstrümanından aldıkları toplam puanlara dayanarak seçildiler.

Sonuçlar öğretmen adaylarının algılanan yansıtma düzeylerinin çoğunlukla bağlamsal düzeyde olduğunu, ardından diyalektik ve teknik seviyelerde olduğunu göstermiştir. Ancak, raporlarında çoğunlukla algıladıklarının aksine dersin planlaması ve zaman yönetimi gibi teknik konulara odaklanmışlardır. Ayrıca, yansıtıcı etkinliklerin türüne bağlı olarak yansıtma düzeyleri bir miktar farlılık göstermiştir. Öğretmenlik uygulaması sırasında, bazı rehber eden sorulara cevaben yazdıkları genel değerlendirme raporunda daha ileri düzeyde yansıtma yapmışlardır. Bu bulgular ışığında, çalışma öğretmen adaylarının gerçek yansıtma düzeylerini geliştirmede farkındalık yaratan yansıtıcı etkinlerin öğretmen eğitimi programlarına entegre edilmesinin önemini vurgulamaktadır.

Anahtar Kelimeler: Yansıtıcı düşünme, Algılanan ve gerçek yansıtma düzeyleri, Yansıtıcı rapor, Öğretmenlik uygulaması

#### **1. INTRODUCTION**

#### **1.1 Background to the Study**

Reflective teaching is one of the main goals of the initial teacher education programs to equip candidates with skills needed in the 21<sup>st</sup> century. The necessity of increasing the quality in teacher education and the need to educate teachers with desired skills to meet the demands of changing society is of great importance. In this context, reflective thinking which directs teachers to a process of thinking critically on their own experiences has gained momentum especially in recent decades. Similarly, in Turkey, in 1998, the process of restructuring the initial teacher education programs was initiated by the Higher Education Council to encourage the development of reflective mindset in teacher candidates (YÖK, 2007).

Reflection derives from the word *Reflectere* in Latin which means "leaning backwards" (Valli, 1997). It means going back to experience (Mezirow, 1998) and behaviors are assimilated based on personal beliefs and values. Dewey (1933) was apparently the first to use the term reflective thinking as "an active, persistent, and careful consideration of any belief or supposed form of knowledge" (p. 9). While the philosophical basis of reflective thinking was created by Dewey during the first half of the 20<sup>th</sup> Century, a great deal of contribution to its definition was done by Schön (1983). According to him there are two types of knowledge: ready-made presented knowledge and the knowledge gained from experiences that are reflected upon. In parallel with this, the students and teachers who are in reflection process and on reflection process systematically review what has been done and what they think they should have done. Through this systematic and disciplined thinking process, teachers proceed from practice to theory (Rodgers, 2002). According to Taggart and Wilson

(1998) this is a logical and knowledge-based decision-making process involving evaluation of results in educational issues by approaching a problem from different aspects. As shown by many researchers, reflection does not occur all of a sudden, but acquired by doing. Therefore, ample opportunities should be provided for pre-service teachers (PSTs) in order to reflect on their teaching experience during their education so that they can transfer this skill directly to learning environment in their professional lives.

Many researchers who spent considerable amount of reflective thinking have reached a consensus on that reflection manifests itself by means of modes or levels (Van Manen, 1977; Taggart & Wilson, 1998; Hatton & Smith, 1995; Kember, 1999; Mezirow, 1991, Jay & Johnson, 2002). According to Mezirow (1991) there are three levels of reflection which are content reflection, process reflection, and premise reflection. Content reflection deals with reflecting upon content and problems are described by asking questions whereas the process reflection deals with evaluating strategies while solving a problem. Premise Reflection is the process of reflection in which the cause of a problem is transformed into perspective that should be developed as an opportunity for future practice. Level of reflection developed in the later works of Mezirow (1998) offers hierarchical structure of four dimensions of critical reflection consisting of habits, understanding, reflection and critical reflection. Routine and frequent activities at habit level are carried out without much consideration. At the level of understanding, the person moves to apply information without questioning its personal significance within the contextual boundaries. When it comes to the level of reflectivity, the problem-solving process is evaluated to find the best ways for solving the problems, but assumptions based on beliefs are not reevaluated. At the highest level which is critical reflection, however, thoughts and

actions are now evaluated in the light of underlying assumptions, taking their causes and effects into consideration.

A major model on the classification of reflective thinking skill was developed by Van Manen (1977) who demonstrated three levels of reflection, including technical rationality, practical action and critical reflection. Jay and Johnson (2002) expressed the levels of descriptive, comparative and critical reflection. On the descriptive level, matters are only described. Based on alternative views and perspectives, the matter of reflection is reframed on the comparative level of reflection while a renewed perspective is developed on the critical level of reflection. Similarly, Hatton and Smith (1995) explained four levels of reflection. At the descriptive writing level, events are just observed and reported without explaining why they might have occurred. At descriptive reflective level, not only events are described but also some efforts are made to explain reasons for these events by referring to alternative perspectives. At the dialogical level, hypothesis about the results of different approaches can be established and evaluated to examine different factors while approaching to a problem in a holistic manner. At the highest level, which is critical level of reflection, however, events are explained through a historical and sociopolitical perspective.

Taggart and Wilson (1998) has defined reflective thinking by separating it into three levels. At technical level, teachers simply describe observations and try to achieve the objective of lesson. Minimal schema was used for education problems since teachers do not have enough experience they cannot benefit from previous experiences. The adequacy and effectiveness of the measurable results in the classroom is important at this level. At contextual level, teachers begin to benefit from their experience of teaching skills, and think about possible solutions for the problems they encounter. They develop alternative ways of practice by linking theory and practice. Finally, at the dialectical level, teachers reflect on moral, ethical and sociopolitical issues and make systematic question of their practice As shown by these definitions, researchers address reflectivity as a process of thinking at certain levels in which teachers explore their learning and teaching processes to evaluate their past and present actions to solve the problems that they encounter in order to make decisions.

#### 1.2 Statement of the problem

Reflection is one of the most important components of teacher education programs since it enables PSTs to make the right decisions for planning, implementation and evaluation in the process of teaching practices. However, one of the biggest challenges PSTs face is that they cannot link the theoretical knowledge they acquired in the teacher education programs with what they learn through their practice teaching (Korthagen, 2001). What strengthens this link is the reflective thinking and reflective teaching practices integrated into these programs (Valli, 1997; Konthagen, 2001). This is because of the fact that thanks to constant reflections on their practices, PSTs learn how to "think like a teacher" (Jay & Johnson, 2002) by developing a holistic perspective on the educational issues. It is also highlighted that teachers need to develop the belief that being a critical reflective practitioner is necessary for professional development (Lambe, 2011). In that sense, practicum supported with reflective tasks provides PSTs with an invaluable opportunity to put theoretical knowledge into practice through which they also take the first step for professional development (Mok, 2010).

Nevertheless, the concept of reflection may be misconceived by PSTs since they try to justify their practice rather than finding alternative solutions for problems (Akbari, 2007). In order to avoid the misinterpretation of reflection and enable PSTs to benefit from reflective practice during practicum, reflective tasks should be involved in teacher education programs such as self-evaluation, peer evaluation, and reflective observation reports on their teaching practices (Liston and Zeichner, 1996; Korthagen, 2001; Taggart and Wilson, 2005). Through these reflective tasks PSTs can have opportunity to question their practices and assumptions, and hence, they become aware of the underlying theoretical underpinnings of their actions.

Having been a bridge between practice and theory in classroom environment, investigation of PSTs' reflectivity has drawn the attention of many researchers within the field of EFL over the years (Tuncer & Özkan, 2018; Trujillo, Eduardo & Parra, 2012; Odabaşı & Palic,2012; Abou Baker El-Dib, 2007; Lee 2005 and Seng, 2004). In these studies, pre-service EFL teachers' perceived level of reflection has been explored mainly through reflective questionnaires and reflective journals. Their actual reflectivity, however, has been less explored. Besides, to the best of my knowledge there is no previous study comparing pre-service EFL teachers' both perceived and actual level of reflectivity. However, teacher candidates who perceive themselves to be reflective may turn out to be not reflective at all. Therefore, raising their awareness on how reflective they really are is the initial step to be taken to improve their reflectivity. To fill this gap, the current study aims to explore pre-service EFL teachers' perceived and actual levels of reflectivity to see if there is a correspondence between these two, and to see if their actual level of reflectivity changes depending on the type of reflective observation reports assigned during the practicum experience.

#### **1.3 The Purpose of the Study**

In light of all these, the current study addresses the following research questions;

1. What are the perceived reflectivity levels of EFL PSTs who go through practicum experience?

2. a. What are EFL PSTs' actual reflectivity levels on the reflective reports assigned during the practicum?

- b. To what extent do their actual and perceived reflectivity levels match?
- c. Do their actual reflectivity levels change depending on reflective tasks?

#### 1.4 Significance of the study

Reflective thinking plays a significant role in teacher education by contributing to the development of more effective learning and teaching environments. Activities that develop teacher candidates' reflective thinking skills in initial teacher education programs enable them to explore the theoretical underpinnings of their teaching practices with a more critical mindset and hence lead them to professional development in the future. Therefore, this study is important on the grounds that it makes a significant contribution to our understanding of how reflective pre-service EFL teachers think they are and how reflective they actually are on practicum tasks. The results will also help teacher trainees to understand how reflective observation reports contribute to the development of their reflective thinking skills. The findings of the study will also guide curriculum developers and program makers in designing teacher training programs that will develop students' reflective thinking skills by pinpointing the tasks that encourage reflectivity especially in practicum experience. In that sense the study will provide ideas to the university supervisors as well to make practicum a more reflective experience for prospective teachers.

#### **1.5 Overview of the Methodology**

The current study was conducted in the ELT department of an English medium private University in Istanbul during the spring semester of 2017-2018 academic year. The study has adopted both a quantitative and a qualitative approach to research to investigate pre-service EFL teachers' perceived and actual levels of reflectivity. 70 senior PSTs who got enrolled in a compulsory Practice Teaching course that offered them an experience of observation and teaching at practicum schools have volunteered to participate in this study by responding to the Profile of Reflective Thinking Attribute Instrument developed by Taggart and Wilson (2005). The scores they obtained were calculated to determine their perceived reflectivity levels. Then, 9 of these PSTs, 3 of whom obtained a score that reveals the highest dialectical level of reflectivity, 3 of whom at contextual level of reflectivity and 3 at the lowest technical level of reflectivity, were selected to answer the second research question of the study that aims to investigate their actual level of reflectivity. As part of their practice teaching course, all of these PSTs were asked to reflect upon their practicum observations on weekly reports, write self and peer-evaluation reports in which they evaluated their own and their peers' teaching practices, and make an overall evaluation of their practicum experience at the end of the semester. These reports that were written throughout the 14-week spring semester by 9 of the selected PSTs were analysed qualitatively using the rubric developed by Taggart and Wilson (2005) based on the Reflective Thinking Pyramid. Hence their actual levels of reflectivity at different tasks were found, and compared to the scores that revealed their perceived levels of reflectivity.

#### **1.6 Limitations of the Study**

This study is limited to the data collected during the spring semester of 2017-2018 academic year. In other words, participants' perceived and actual levels of reflectivity were measured towards the end of their practicum experience. Their initial level of reflectivity at the beginning of this experience could not be measured. Therefore, the study cannot address their development as reflective teacher candidates.

#### **1.7 Definitions of the Terms**

PSTs in this study refer to senior students who study in English Language Teaching Department. These students are enrolled in a practice teaching course conducted at practicum schools under the guidance of a university supervisor and a cooperating teacher. The former is the university professor who conducts the practicum experience course, and the latter is the master teacher at practicum schools who conducts the practicum course in collaboration with the university supervisor.

Reflective thinking is the process of making rational decisions on educational problems and is the process of evaluating the results of these decisions (Taggart & Wilson, 1998, 2005).

Practicum is a required experience for teacher candidates that takes place in real school settings. The PSTs are given an opportunity to observe their cooperating teachers' teaching practices first, and then to prepare their own lesson plans to implement. Hence, they put theoretical knowledge into practice under the guidance of their university supervisors. According to the most recent regulations made by Higher Education Council, teacher candidates are supposed to complete 72 hours (6 hours a week in a total of 12 weeks) of observation at practicum schools. During the time of data collection in 2018, requirement was the completion of 84 hours in a total of 14 week.

#### **2. LITERATURE REVIEW**

This section will provide theoretical background for reflective thinking and review the studies that investigated reflective practice with preservice teachers.

#### **2.1 Reflective Thinking**

At the beginning of the twentieth century, American philosopher and educator Dewey first introduced the concept of reflecting thinking in 1930s in his book entitled How We Think and defined reflective thinking as "active, persistent, and careful consideration of any belief or supposed form of knowledge" (1933: 9). Reflective thinking is a cognitive process in which experiences are evaluated in light of previous knowledge in order to find meaning that will guide to create new information and new alternative ways are developed. According to him, reflective thinking consists of a number of mental steps, such as feeling confusion, finding and defining a problem in the mind, and developing possible solutions in order to take action to solve a problem. Having been influenced by Dewey's views on reflective thinking, Schön (1983) defined it to refer to a situation that is hidden in action that manifests itself with behaviours. In other saying, reflective thinking is considered as a process that needs to be done consciously and should take place within or after the action. Based on Dewey's views, Vansickle (1985) explained reflective thinking as the process of defining the problem, organizing data, comparing the data with the implications of others, and evaluation based on the consequences of actions. For Rodgers (2002) reflective thinking means the process of giving meaning for a deeper understanding of one's own experience and relate others' experiences and ideas, and individuals have to give their attention to this process because they will choose similar and different aspects of information schemes in their minds. In other words, reflective thinking is a

way of creating new thoughts in a meaningful and logical way in accordance with the information and beliefs a person has (Mezirow, 1998).

Following Dewey's ideas that reflective thinking should serve an educational purpose, some researchers emphasize the application of reflective thinking in education. For instance, Ross (1989) suggested that reflective thinking requires the ability to take responsibility on educational issues. Similarly, Taggart and Wilson (1998) proposed that "reflective thinking is the process of making informed and logical decisions on educational issues and then evaluating the consequences of those decisions." (p.2). Farrell (2004) hold the view that during the reflective thinking process, practitioners need to take responsibility to analyse situation that happens in the classroom along with personal teaching beliefs, and while analysing an event, connection between past and present events should be established to produce alternative ideas for future practices.

What triggers reflective thinking is a problem that needs to be solved. As Lee (2005) stated, reflection begins when a person wants to re-evaluate the situation based on the past experience towards a problem that cannot be solved. Mezirow (1998) proposed that in reflective thinking there are two stages of solving a problem: being aware of a problem and following certain steps to solve the problem. Unver (2003) also considered it as a process of thinking to solve problems negative and positive situations are analysed in relation to method used in teaching and learning. It also requires looking at the current problem from various angles evaluating the problem and developing alternative perspectives (Rodgers,2002). As seen in these definitions, reflective thinking is closely related to the having an ability to make the right decisions in educational settings.

Rodgers (2002) emphasized that reflective thinking process is a systematic and disciplined way of thinking based on scientific inquiry and it is a link between practice and theory, and as Freire (1985) said reflective thinking is a synthesis of practice and theory because they activate each other. Another scientific explanation made by Bigge and Shermis (1999) asserted that reflective thinking is a kind of highlevel thinking skill that involves developing and testing hypothesis, collecting data through an inductive approach and drawing a conclusion through a deductive approach. According to Kruse (1997), reflection is an inseparable process of thoughts and actions. Actions that take place without reflection are hindrance to the evaluation of experiences in order to make sense of experiences for future actions. In the context of reflective thinking, the most important elements are experience, continuity and interaction. This way, an individual can attribute a new meaning to the situation by interacting with the environment or others (Rogers, 2002; Wilson & Jan, 1993; Zuckerman, 2004). Jay and Johnson (2002) also highlighted the importance of collaboration in reflective thinking by emphasizing how a problem or a situation is redefined with others' views and perspectives.

As can be understood from the definitions found in the related literature, reflective thinking in educational settings is a process in which teachers evaluate and solve the problems they face, and think about their past and present with a questioning mind-set to make decisions about what can be done to eliminate the problems for future practices. In other words, it is the process in which, rational decisions are made on educational matters by evaluating the result of these decisions. (Taggart & Wilson, 2005).

#### 2.1.1 Models of reflective thinking

Schön has been the cornerstone of teacher education programs and professional development by revealing the special and systematic ways of thinking to put reflective thinking into practice (Vagle, 2010). His most important contribution is the concepts of "reflection in action", "reflection on action", and "reflection for action". His examination of these types of reflections is related to the time of reflective action as shown in Figure 1.

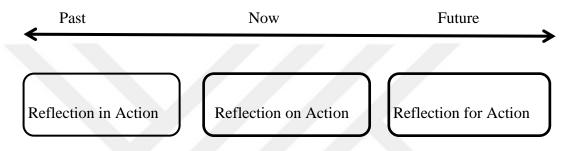


Figure 1. Time of Reflective Action

One of three concepts introduced by Schön (1983) about reflection is reflection in action that refers to the reflection made by the individual during the process of experience and helps individual reflect immediately to respond to an unexpected situation to find solutions. The process of reflection in action includes features that are driven by experiences that we do not have enough control over. In order to put reflection on action into practice, practitioners need to be conscious, think critically and act as fast as possible. It is necessary to think on and evaluate in detail the student-teacher interaction in the teaching process during the reflection in action. Teacher candidates can be more active and develop awareness in teaching practice by questioning what, why, and how they will organise their practice (Schön,1983).

Farrel (2015) asserted that reflection in action might be problematic for inexperienced teachers as they do not have enough experience and teaching routine to evaluate the situation at the moment of action. Reflection on action refers to a conscious thinking which is simply about our actions. According to Schön (1983, 1987), practitioners can reflect on theories and strategies that are hidden in norms and values which underlie a decision. Unexpected failures and achievements, depending on the breadth of previous knowledge directs the individual to examine, try to do something in different ways, test hypotheses, and retry to find out which of the hypotheses are valid. Teachers begin to reflect on action as they gain experience. This involves reflection about adaptation and planning the lessons to meet students ' needs, as well as after the practice. (Wright and Grenier, 2007). As a result of the experience gained in reflection-in-action, and reflection-on-action, the future thoughts and behaviors are shaped so reflection-for-action occurs.

Another model developed by Kolb (1984) is experiential learning which enables reflection based on individual's learning experience, and attributes new meanings that will guide the future learning experience or action. In this theory, the formation of knowledge is based on previous experiences. Kolb (1984) stated that he did not want to develop an alternative learning theory, rather, a holistic understanding of learning theory combined with experience, perception, cognition, and behavior. To be effective learners, one must complete for stages which are; concrete experience, reflective observation, abstract conceptualization, and active experimentation. At concrete experience stage, conscious and systematic reflections are done in order to improve practice based on existing knowledge. Reflection observation refers to see problem from different perspectives before questioning the situation. At abstract conceptualization stages, situations are evaluated and compared with similar situation that has been experienced before. Expert knowledge and literature are also utilized to get further ideas. The last stage is active experimentation in which, first three stages are evaluated and a new model or theory are tested. An important model on the classification of reflective thinking skills was developed by Van Manen (1977) who proposed three levels of reflection, namely technical, practical and critical reflection (Van Manen, 1977). Reflection at the technical level is in a great relationship with experience. As inexperienced teachers or teacher candidates do not have enough experience in teaching, they try to achieve the objective of curriculum without questioning educational values, and hence usually does reflection at technical level (Yeşilbursa, 2011). At the practical level of reflection in Van Manen's model, teachers start to take advantage of their skills and try to find solutions by thinking about the problems they face. Students' behavior is analysed in order to understand whether goals were achieved or not. The general framework of practical level of reflection is said to be the analysis of the efficiency of the methods, techniques and materials used in practice. The highest level is critical and ethical values.

Mezirow (1991) reinterpreted reflection by addressing to non-reflective and reflective actions. Non-reflective actions include habitual, thoughtful and introspection actions. Habitual actions are automated and previously learned actions which require limited conscious thoughts such as using a keyboard and driving a car. In other words, our daily activities become routine behaviours that we do not tend to clearly reflect on. Within the process of thoughtful action, individuals use information that is not experienced before. Knowing, comprehending, applying, analysing, synthesizing and evaluating in Bloom's taxonomy can be seen at this action and it requires thinking about action. On the contrary to thoughtful action, introspection action focuses on the affective domain such as feelings, happiness, disappointment or boredom. When practices become repetitive or routine, teachers may fail to notice the importance of what they do. Therefore, reflective action becomes crucial. Reflective action on the other hand has three components including content, process and premise reflections. Content reflection, according to Mezirow (1991), deals with reflecting upon what is perceived, what is thought, and what it feels like whereas the process reflection deals with how to do a better reflection. Premise Reflection is the process of reflection in which the cause of a problem is transformed into a perspective that should be developed as an opportunity for future action. In other words, premise reflection is the critical review of conscious and unconscious prior knowledge and their outcome.

In another reflection model offered by Valli (1997), reflection was classified into five different levels of technical reflection, reflection-in and -on action, deliberative reflection, personal reflection, and critical reflection. Technical reflection is related to teachers' general instruction, teaching techniques and skills evaluated based on the outside criteria considering the authorities and education researchers. Reflection-in-action and -on-action is related to teachers' own teaching performances. The decisions are given by taking advantage of past experiences. Teachers who keep a journal about the events or problems they encounter in the classroom and then read these entries again to find solutions to these situations is the example of this level of reflection. At deliberative level, decisions are made not only according to experts' opinions but according to personal values since it requires the combination of teaching conditions that include curriculum, teaching strategies, classroom rules, and classroom organization. Personal reflection level includes a teacher's own personal development and relationships with students. The effectiveness of practice on students and concerns about students are not only related to their academic achievements, but also their lives. At the critical reflection level, social justice, moral values and equality are taken into consideration. The school is seen as a political structure. For example, a teacher who questions if some of the students are ignored by the school's system is doing critical level of reflection.

Lee (2005) emphasizes that the reflection process consists of three levels; recall, rationalization, and reflectivity level. Teachers only describe actions based on the past experiences which can be remembered at recall reflectivity level whereas actions are described with a rationale by looking at the relationships between the experiences to investigate the causes and generalize the experiences at rationalization level. At the reflectivity level, experiences are analysed based on different perspectives by addressing the experiences to change and improve for future practice.

A further level of reflection model developed by Hatton and Smith (1995) includes four levels of reflection: descriptive writing, descriptive reflection, dialogic reflection and critical reflection. Descriptive writing is the first level of reflection in which only the events in classroom practices are described without reflection. At the descriptive reflection level, actions are justified based upon personal interpretation of practice or readings. Then, different perspectives in the form of self-talk are considered at dialogical reflection level. In critical reflection, however, reasons are given based upon social, political and historical context.

Drawing from Van Manen's model of reflection, Taggart and Wilson proposed a three-level reflection model which forms the theoretical framework of the current study. Reflective thinking has been defined by Taggart and Wilson (1996) as a rational and informed decision on educational issues and the process of evaluating the results of these decisions. The reflective thinking process is similar to the problem solving process. Their model consists of five steps as shown in Figure 2.

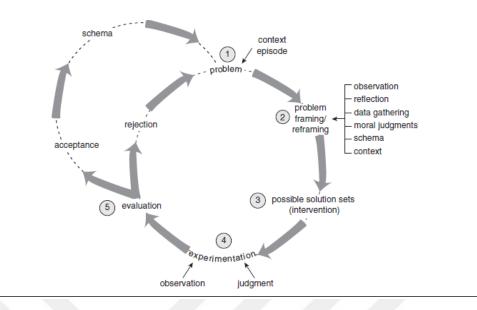
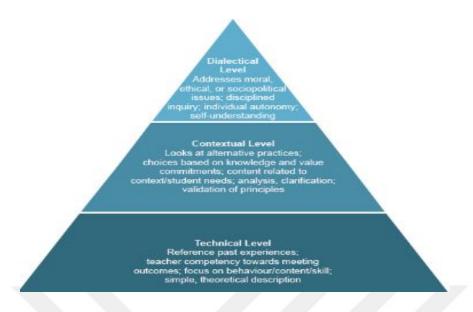


Figure 2. Taggart and Wilson's Reflective Thinking Model

The first step towards reflective thinking involves a problem. In the second step, individual take a step back in order to see the problem from a different point of view. Then, the third step involves developing possible solutions; and predictions are made based on similar experiences. In the fourth step, solutions are tested in a systematic way. The last step consists of evaluating the results of the implementation process of solutions, and as a result rejection or acceptance of solutions occurs. If the solution turns out to be successful, then it is stored and routinized to be used in similar situations that will be encountered later (Taggart & Wilson, 1996). In line with their reflective thinking model, Taggart and Wilson created a Reflective Thinking Pyramid in their later studies (2005), as shown in Figure 3, based on the reflective thinking levels developed by Van Manen.



#### Figure 3. Reflective thinking pyramid

Taggart and Wilson discussed reflective thinking at three levels: In technical level of reflection that represents the first level of reflective thinking, teachers form a non-multidimensional scheme of the problem when they encounter a problem. In this level of reflection, while practitioners deal with problems, they benefit from their previous experiences at a minimum level. Teachers without enough experience often reflect on technical level and they only concentrate on obtaining results based on the objectives of their lesson and only attach importance to the results without questioning the context of a situation. Moreover, skills, technical knowledge and methodological awareness are prerequisites of technical level where teachers define the relationship between learning activities and objectives as simple and theoretical. The second level of reflection, which is contextual level, includes reflections on the underlying propositions and assumptions about the in-class applications and the results of the strategies that are used. The pedagogical issues are examined along with the existing relationship between theory and practices by the practitioners.

At the technical level, The problems are caused by the practice of an individual's prejudices in the belief system and the questioning of the practices that are carried out with growth in pedagogical knowledge. The problems encountered at this level allow teachers to reflect on the practices and thereby combine theory and practice in their teaching and to obtain routines and principles for further practices (Taggart & Wilson, 2005). Furthermore, at contextual level, problems arise from personal prejudice and result in the teacher's own belief system so events or situations during the practice are questioned in order to increase pedagogical knowledge and skills. This way a better teaching environment is created. At this level, the teacher realizes the concepts, contents and theoretical foundations of classroom implementation, and then explores the effects of these practices on the development of students. At his level teachers also benefit from their experience in teaching skills, and reflect on the problems they face and try to find solutions.

At the dialectical level, teachers think about ethical and political matters related to their practice. Equality, freedom, and justice are evaluated by taking planning of the curriculum into consideration. Teachers who reflect at the dialectical level can question the teaching methods which they used and appreciated before. The indication of the reflectivity at the dialectic level is that the choices are clear and teachers are open-minded when addressing an event and, cultural, social and moral values are considered while evaluating the curriculum on behalf of students' learning and their teaching. For the purpose of the current study Taggart and Wilson's (1998, 2005) reflection level model are used to be able to understand EFL PSTs' reflection level.

#### 2.2 Reflective Teaching and Teacher Education

Professional development process of teachers starts with experiences as students in the initial teacher education programs (Körkkö, Kyrö-Ammala & Turunen, 2016). Studies on teacher education hold the belief that PSTs develop practical theories to plan, implement and evaluate in daily practice based on their previous experiences (Levin & He, 2008).

The concept of reflective teaching is considered to be the vital component of teacher education programs. Reflective teaching is defined by Williams and Grudnoff (2011) as a process in which teachers take their practices into consideration and analyse their practices with the aim of developing their own teaching. Therefore, PSTs need to be given opportunities to question and reflect upon their practices for a better teaching and learning (Mok, 2010). In these programs, reflective teaching practice enables teachers to implement what they learn. During this process, PSTs can either adapt the activities in a book or design their own activities. Reflective thinking also allows them to evaluate their own performance, and hence makes a significant contribution to their professional development. This way, they can be aware of their potentials considering both positive and negative sides of teaching practice, and they also improve their professional skills to become more efficient in creating positive learning environments for their students in the future (Dervent, 2015). Reflective thinking-oriented teacher education programs emphasize the development of prospective teachers who are sensitive to and knowledgeable on teaching and social issues; and who can think like teachers in many ways (Jay & Johnson, 2002). According to Calderhead and Gates (1993), teacher training programs with a focus on reflective thinking should have the following objectives: PSTs should be given an opportunity to analyse, discuss, assess, and modify their practices. They

should be encouraged to understand that the effectiveness of teaching is social and political, and that their responsibilities also contribute to the assessment and analysis in the social and political context. Teachers should also be provided with the moral and ethical principles of classroom practices in a way that involves evaluation of their beliefs on their practices. Prospective teachers should be provided with an opportunity to develop their personal theories on educational practices and to understand and develop their own principles of practice. The teacher training programs which are based on the constructivist approach with reflective thinking elements aim to train enthusiastic and active teachers who are willing to take the responsibility of their own actions. In addition, prospective teachers should have the capacity to work independently and in a group and be expected to produce and express their ideas on social facts (Wilson & Jan, 1993). The importance of reflective thinking in learning should be emphasized, and the main objective should be to demonstrate the ability to apply different effective methods in appropriate tasks. Prospective teachers should collaborate while exploring new ideas and evaluating their ideas, and they need to be provided with learning experiences that promote interaction and connectivity with the real world (Taggart & Wilson, 2005).

Schön (1987) bases the reflection in teacher education on the principles of self-educating and discovering the practice of learning. Reflective teacher education programs should teach PSTs reasoning about the ways that they can make improvement on their teaching to see how using certain strategies lead to positive impact on their students and why they use certain teaching strategies (Lee, 2005). In providing these opportunities, the teacher trainer should develop the belief that being a critical reflective practitioner is a professional requirement for PSTs (Lambe, 2011).

Ovens (2000) sees reflective teaching as essential for teachers' professional development process as well. This way teachers see themselves as others see them. According to Loughran (1996), through reflective teaching not only do PSTs learn the technical skills of teaching but also develop the sense of purpose to make informed decisions. Henderson (1996) believes that reflective teaching is a combination of creative problem-solving activities and an interrogative approach based on constructivism in teaching which emphasizes the importance of others' feelings. Similarly, Schön (1983) stated that reflective teaching should be treated as a problem solving process instead of presenting the stereotyped theoretical information to students.

There are also some basic characteristics of reflective teaching proposed by Pollard (2005). Reflective teaching requires high standards in class practice to support continuous development, open-mindedness, accountability, and sincere attitudes. Reflective teaching enhances professional learning, cooperation and dialogue with colleagues. It allows teachers to organise their teaching and learning activities in a creative way (Pollard, 2005).

According to Taggart and Wilson (1998) reflective teachers can develop a critical approach to all subjects related to teaching and eventually develop themselves professionally. Teacher candidates can ask themselves the following questions to think about what is happening in the classroom in terms of their teaching processes and student responses. Have the objectives of the course been achieved? How was it achieved? What components were effective or not during the teaching process?, Did the students act as expected in the class? Why? How can the course be reorganized or improved to provide a better learning environment? (Opp-Beckman and Klinghammer, 2006).

To sum up, teaching PSTs to be reflective thinkers enables them to make the right decisions for planning, implementing, and evaluating in the process of teaching practice. They can build the link between theory and practice only through reflective thinking, and therefore it is of great importance to make it a part of teacher education programs.

#### 2.2.1 Characteristics of reflective teacher

Being a reflective teacher requires to be open-minded about the events, methods and techniques related to education. Reflective teachers ask themselves questions about changes to make better improvements (Grant and Zeichner, 1984). They think and try to prove using common sense on their experience. They examine the hidden dimensions of their applications and realize that they exist on the ground. They are aware of the effects they create on students. Reflective teachers deliberately create reflective moments when the focus of class activity is on students' interest rather than on the teachers' agenda (Brookfield, 1995). Besides, they relate theory with practice based upon different kinds of information, and school policies and their own practices are also examined. In order to reach desired goals, reflective teachers are able to use different perspectives, depending on the context, they can re-evaluate the situation and change teaching behaviour accordingly. However, having limited capacities, non-reflective teachers cannot take the results of their action into consideration while giving decision since their moral and intellectual capacities are not developed. Rodgers (2002) stated that reflective thinking teachers would act by thinking about the reasons and consequences of their actions, that is, they focus on the outcome of their action rather than the action itself. He also stated that teachers could develop different strategies for identified problems, try different methods and

techniques in their solution, and thus they avoid monotonous actions while solving a problem.

The main features of reflective teachers are also defined by Norton (1997). Reflective teachers continuously evaluate the teaching process and take appropriate decisions by reviewing the methods and tools that they use; are open to criticism of others; seek alternative solutions to the problems; commit themselves to the mental, emotional and physical problems of students; and they have intellectual responsibility to consider the outcomes of their short term and long term decisions. They make their plans accordingly, they see the future, and prepare students for the outside world. They use reflection not only to identify and generalize problems, but also to change their understanding of practice to make contribution to their professional development. As a result, reflective teachers support students' thinking and learning by organizing a positive classroom environment and building trust in the classroom so that students can reflect on learning.

According to Larrivee (2006), reflective teachers devote remarkable time on interactions in the class and think seriously about of their actions. They reflect on everything in their classes with a perspective of professional development, on the other hand, non-reflective teachers are often not able to handle difficult situations, and they are not motivated in terms of professional development. As a result of these, professional potential cannot be achieved. As it is seen, teachers who are reflective and volunteer for reflective practice must be open-minded, diligent and responsible as well as willing to develop themselves in different areas for their professional development.

## 2.3 Tools for Improving Reflectivity in Teacher Education

There are various tools to be used in teacher education to improve PSTs' reflective thinking skills. In this context, reflective thinking should be considered a skill that can be developed. In order to achieve the development of reflective thinking, teacher education programs must include observational learning, micro teaching practices, and reflective journals (Liston & Zeichner, 1996; Korthagen, 2001; Taggart & Wilson, 2005).

#### 2.3.1 Reflective journals

Journal writing has been widely used in teacher education programs to encourage PSTs to reflect upon their teaching practice during practicum experience. (Chitpin, 2006). Journals used in the teaching process that enable prospective teachers to state their personal ideas during the process is one of the most commonly used tools for gaining reflective thinking skills. (Lee,2008). While keeping reflective journals, PSTs ask questions about the learning process and develop hypotheses regarding the problems they face in the classroom environment (Lee,2008). Moon (2007) stated that journals could be used to keep the record of experience, to help advance critical thinking or questioning skills, to encourage metacognition, to boost participation actively, to improve the ability of reflection and problem solving, to support personal development, to support or change behavior, and to enhance creativity and self-expression.

Larrivee (2006) adds that through reflective journals, teachers can broaden their perspectives by keeping track of thoughts, emotions and problems. Besides, keeping journals regularly helps teachers to be more aware of what is going on both in their internal and external worlds.

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### 2.3.2 Observations

The reflective teaching practice is the focus of reflective education that supports professional development. At the pre-service level, the reflections made with the observee teacher and peer participation are two aspects of the most common reflective practice. Although reflective practice is usually an individual process, it is useful to share ideas and experiences with other PSTs by observing each other (Ferraro, 2000). Effective observations are continuous and systematic, and the ability to focus on points is improved. To do this, notes are taken, and actions are discovered within a relatively short period of time (Bandura, 1982). Making sense and judging are the elements of an effective observation process and these concepts make observational skills difficult especially for PSTs with no experience (Taggart, 1998). Selecting the criteria and tools to be used during observation makes the information obtained through observation more useful (Hatton & Smith, 1995).

While observing, PSTs reflect on the teaching skills of their peers, specifically the teaching methods they use in the practice. In addition, observing and giving feedback has a positive effect on their reflective thinking. By means of observation, they see and reflect on points that otherwise they cannot see (Karwan, 2009).

## 2.3.3 Self-evaluation

Thinking about one's past practices leads to new learnings. From this point of view, self-evaluation is an important activity which aims to improve reflective thinking skills in EFL PSTs. Wilson and Jan (1993) state that reflective thinking is the process of making a self-assessment, so they should be given the opportunity to assess themselves and to improve their reflective thinking. Hence, teachers develop their own self-assessment skills and be more involved in activities that develop reflective thinking (Dymoke & Harrison, 2008).

#### 2.3.4 Peer-evaluation

Self and peer evaluations have been increasingly used in teacher education programs because these forms of evaluation coincide with modern views in education (Merrienber, 2010). Dymoke and Harrison (2008) define peer evaluation as a reflective form of evaluation that aims at combining learning and evaluation processes, which increases learning rather than comparing and measuring students ' knowledge, and helps develop evaluation skills. In line with this view, PSTs are encouraged to share their ideas with their peers about skills to teach and to try these skills in real classroom settings (Dochy, Segers & Sluijsmans,1999).

#### 2.4 Research on PSTs' Reflectivity

There have been some studies investigating PSTs' level of reflectivity within EFL context. Nurfaidah (2017) conducted a study with EFL PSTs to see if there are any changes in terms of development on the level of reflectivity during their practicum period. Reflective journals, interviews and video recording constituted the data of the study and Hatton and Smith's (1995) framework was used for the purpose of measuring the level of reflectivity. The result of the study indicated that although EFL PSTs' exposure to reflective teaching is restricted to their practicum period, their reflectivity was found to be in dialogical level. In this level of reflection, reflectivity is based on making personal assessments and discovering experience through dialogues with self.

Another study was carried out by El-Dib (2007) with 159 PSTs enrolled in an EFL program in Egypt. The study aimed at finding their reflective thinking levels in the action research reports they wrote during their practice teaching. In order to construct criteria to assess the level of reflective thinking Kember's (1990) four

levels, which were conceptualized as low, low-medium, high-medium and high level of reflectivity, were used. At the low level of reflection, problems are stated without giving attention to the causes of problems. At the low-medium level, only one cause and effect relationship is included. At the high-medium level, multiple reasons of a problem may be considered without focusing on the larger issues. At the highest level of reflection, however, problems are addressed from different perspectives with regard to cultural, ethical and socio-political issues. The result of the study revealed that more than half of PSTs were at the level between low and low-medium, and they only addressed the action or problem without a rationale. The study suggests that assignment should be given in a way that EFL PSTs can reflect by integrating ideas learned from different courses and other fields.

In Columbia, an exploratory case study was conducted by Parra (2012) with four EFL PSTs who were studying in a foreign language teaching department to assess level of reflectivity. In this program, a 16-week teaching practice was a requirement for PSTs to graduate. Their class observations, reflective journals and interview were the data collection tools of the study. Van Manen's (1977) model that classify reflectivity as technical, practical and critical was used for analysing the data in this study. At the technical level, teachers try to fulfil the objectives of the program without questioning the values, focusing merely on the necessary principles for educational knowledge and the goal to be achieved. At the practical level, teachers reflect upon the degree of achievement of activities and the results obtained from interpretation based on value judgements. At the highest level that is critical reflection, moral and ethical values are taken into consideration based on cultural, political and social facts. Study revealed that even though all participants reached technical and practical level, only two participants showed the critical reflection. Parra explained this finding with PSTs' limited knowledge of reflectivity and therefore suggested that PSTs should be guided to achieve the highest level of reflectivity.

Naghdipour and Emeagwali (2013) also conducted a similar study in North Cyprus to find PSTs' level of reflective thinking and their instructors' perception about what hinders reflectivity. 96 EFL PSTs at different grade levels and 10 instructors participated in the study. Reflective Thinking Questionnaire constructed by Kember (2000) and adaptation of Oxman and Barrells' Inhibitors of Reflective Questionnaire were used to collect data in this study. According to Kember's (2000) level of reflective thinking, the first level is habitual action in which routine and frequent activities are done without too much consideration. The second one is understanding level in which practitioners act within contextual boundaries to understand and apply knowledge without questioning their personal significance. The second level is reflection level, teachers try to find the best way to find solutions towards problems. . However, assumptions based on beliefs are not re-evaluated. In the critical reflection, thought and actions (causes and effects) are evaluated in the light of assumptions. The results of PSTs' survey showed that senior students were at critical level unlike 2<sup>nd</sup> and 3<sup>rd</sup> year's ELT students who did not achieved higher level of reflection. As for the factors that prevent reflectivity, the instructors stated that they did not have proper reflective teaching environment with proper reflective tasks. The researchers suggested that tasks given to ELT students should promote problem solving skills and reflectivity.

Within the Turkish EFL context, several studies have investigated reflectivity levels of pre-service EFL teachers as well. One of these studies was conducted by Tuncer and Özkan (2018) with 12 PSTs in a state university. A qualitative case study

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approach was utilized to investigate reflectivity levels of PSTs using the framework developed by Lee (2005). In this framework, reflectivity levels are Recall level (R1), Rationalization level (R2), and Reflectivity level (R3). Recall level is the lowest level, in which PSTs make simple description of their observation without questioning the situation. At the Rationalization level, PSTs relate a situation with their previous experiences, and they try to find solutions. At the Reflectivity level, experiences are analysed and different perspectives are taken into consideration to improve and change their future practice. Data were collected through interview and reflective journals that PSTs wrote during 12 weeks practicum period. When researchers analysed their first two reflective journals, it was seen that they were only making simple description of their observation. Therefore, some prompts were given by researchers to foster their reflectivity. The results of the study showed that pre-service EFL teachers' reflectivity levels changed when they approached to the end of practicum experience. Although they were given prompt to trigger their reflectivity, most of PSTs were at the lowest level, and the second level, which is rationalization level, was achieved by small numbers of participants after fourth week. The reflectivity level, which is the highest level, was found in the last two weeks of practicum period. Tuncer and Özkan (2018) highlighted that reflectivity needs time and effort, and prompts should be used to achieve higher reflectivity.

Another study in Turkish EFL context was done by Armutçu and Yaman (2010) to see the changes in the perceived reflectivity levels of pre-service EFL teachers during practicum period. 37 pre-service EFL teachers participated in this study. Their reflectivity levels were measured through a Teacher Reflection Scale developed by Kayapınar and Erkuş (2009) at the beginning and the end of the practicum. At the end of the study, reflectivity levels of PSTs were found to be high

both in the beginning of the study and at the end of the study. Mainly, there was no change between two measures in terms of reflectivity level. Researchers concluded that no reflectivity changes were noticed because of time limitation and inconvenient situations of practicum schools.

In light of all these, the current study aims to investigate both perceived and actual reflectivity levels of PSTs who are doing their practicum within Turkish EFL context. Although reflectivity is attached a great importance in the program they are enrolled, how reflective these PSTs actually are is worth investigating to pinpoint any difference between their perceived and actual reflectivity for the purpose of raising both their and their instructors' awareness on the issue. Besides, the study has a focus on the nature of tasks that promote reflectivity. In other words, how reflective reports PSTs get assigned during practicum change their reflectivity level will be another focus of the study. Hence, the study aims to make a significant contribution to our understanding of how tasks assigned during practicum experience affect our reflectivity levels. The questions addressed by the study and the design adopted to answer these questions will be narrated in detail in the following chapter.

#### **3. METHODOLOGY**

The purpose of the study is to investigate EFL PSTs' perceived levels of reflectivity, and their actual reflectivity levels on a variety of reflective reports assigned during the practicum experience. Hence, it aims to show if there is any correspondence between their perceived and actual reflectivity levels, and if their reflectivity levels change depending on the type of reflective tasks. More specifically, following questions are addressed:

1. What are the perceived reflectivity levels of EFL PSTs who go through practicum experience?

2. a. What are EFL PSTs' actual reflectivity levels on the reflective reports assigned during the practicum?

b. To what extent do their actual and perceived reflectivity levels match?

c. Do their actual reflectivity levels change depending on reflective tasks?

## **3.1 Settings and Participants**

The present study was conducted in the ELT department of an English medium private university in İstanbul during the spring semester of 2017-2018 academic year. 70 senior PSTs who were enrolled in a practice teaching course offered during the 8<sup>th</sup> semester of the ELT program volunteered to participate in the study. At the beginning of the fall semester they were placed in seven practicum schools two of which were public schools. 11 of these participants were male while the rest 59 were female with an average age of 20. Before the practicum, participating pre-service EFL teachers had completed some courses that aimed to develop their theoretical and pedagogical knowledge on second language acquisition, classroom management, second language teaching methods, applied linguistics, material adaptation, evaluation, development and assessment, and the teaching of language skills. These courses prepared them to the practicum experience which is spread over 2 semesters in which they both observe experienced teachers in real classroom settings and do their own practice teaching under the supervision of their university supervisors and the cooperating teachers in practicum schools. Each of the participating PSTs had completed the school experience course, the prerequisite for practice teaching course, in the 7<sup>th</sup> semester of the program. As part of this course at the beginning of fall semester, they were assigned to practicum schools where they spent a whole day a week and observed 4 hours of classes at different grade levels throughout the 14 weeks. Observations during the first semester were task-based. In other words, they were given focused questions on issues regarding the learner, learning, teaching skills and strategies, classroom management, and use of materials and resources. These observations tasks came from the text book Classroom Observations Tasks by Wajnryb (1992). Every other week PSTs were given a new focus for observation based on the readings in that book and expected to share their reflections on a report and in classroom discussions during the in-campus meetings.

The seniors who completed their school experience successfully were enrolled in practice teaching class for their practicum during the second semester. Although in 2019, the Ministry of Education required 72 hours of practicum to be completed in 12 weeks, in 2018 when the data was collected the required number of hours was 84 in 14 weeks. This way, the PSTs who were placed in practicum schools at the beginning of the fall semester completed their practicum at the end of the spring semester. Throughout this experience each PST followed the timetable in their syllabus and the practicum guide prepared by the university supervisors. In the spring semester of 2018, the PSTs were required to teach 4 classroom hours at different levels on different weeks. All of these teachings were observed and graded by the university supervisor and cooperating teachers. These teachings were also observed by their peers. For these teachings, PSTs were required to prepare a lesson plan and implement them to meet the teaching objectives in the classes where they did their year-long observations. The PSTs were also responsible for keeping a portfolio in which they had a record of signature sheet signed regularly by their cooperating teachers after each hour observed; lesson plans they prepared for their teachings; the evaluation grids filled by their university supervisors and cooperating teachers after each teaching experience; and the self-evaluation and peer-evaluation reports they wrote after their own and their peers' teaching. These portfolios were submitted to the university supervisor at the end of the spring semester. These prospective teachers were also evaluated on an online platform called MEBBIS created by the Ministry of Education. After each teaching, evaluations were entered into this system by cooperating teachers, and an overall evaluation was done eventually in collaboration with the university supervisor.

## **3.2 Research Design**

The study adopted a mixed method research design with both a quantitative and qualitative approach to research to obtain an in-depth perspective on the issue explored. The answer for the first research question came from quantitative measures while the answer for the second research question was revealed through a qualitative analysis of the reflective tasks they were assigned during the second semester of practicum experience. The mixed research method has some benefits since it makes the synthesis of two methods by eliminating the weakness of a single method and increasing the reliability of the research (Rossman & Wilson, 1994). Qualitative research is based on an interpretive approach to reveal phenomena and events in their natural environment in a realistic and holistic manner (Yıldırım & Şimşek, 2011). On the other hand, through quantitative research, it is possible to measure the reactions of large groups of people to a set of questions (Patton, 1990). This makes it easier to compare data and perform statistical procedures. Besides, by using qualitative research method, the interpretation of the research can be inadequate, so the numerical data obtained from quantitative research eliminate this deficiency (Johnson & Onquegbuzie, 2004). In this study, mixed method research design was utilized to investigate perceived reflectivity through the quantitative means, and the actual reflectivity through qualitative means. Based on the results of quantitative data, qualitative analysis was performed to establish trustworthiness of the research (Cresswell, 2005).

#### **3.3 Data Collection Instruments**

In this study, multiple data collection tools were utilized to fully understand the phenomenon investigated. Data for the first research question that investigates 70 pre-service EFL teachers' perceived levels of reflectivity came from the Profile of Reflective Thinking Attribute Instrument developed by Taggart and Wilson (2005). The data for the second research question that investigates their actual levels of reflectivity came from a total of 207 reflective tasks written by 9 of these PSTs selected on the basis of the scores they obtained on the Profile of Reflective Thinking Attribute Instrument.

### 3.3.1 Profile of reflective thinking attribute instrument

In order to answer the research question, *What are the perceived reflectivity levels of EFL PSTs who go through practicum experience?*, Profile of Reflective Thinking Attribute Instrument developed by Taggart and Wilson (2005) was administered to 70 PSTs who participate in the study (See Appendix A). The questionnaire measures three different levels of reflective thinking which is in line with a rubric driven from the reflective thinking pyramid created by these researchers. The statements of the questionnaire correspond to the categorization of levels defined in the reflective thinking pyramid. As mentioned earlier in this thesis, at the bottom of the pyramid is technical level of reflectivity in which teachers use minimal schema while solving problems, because they do not have enough experience in the field that they can take the advantage of. The main concern is only to achieve the targeted learning outcomes without questioning the practice. Contextual level is the level in which teachers reflect upon the rationalization of the assumptions underlying the strategies used in the class. Teachers pay attention to pedagogical issues considering how theory and practice are related by taking students' development into consideration. At the highest, dialectical, level teachers think about ethical and political issues related to practice. Equality, freedom and justice are assessed in the context of curriculum planning. Teachers are free of personal prejudice; they focus on the value of information, and make social conditions beneficial for students. To make rational choices and observe an event with an open mind are important indicators of the dialectical reflection. Based on these three levels of reflectivity, Profile of Reflective Thinking Attribute Instrument consists of 30 statements placed on a likert type scale with four-points ranging from *almost always* to on a regular basis to situational to seldom. Participants are required to choose one of these four indicators that best reflect their agreement. Each indicator was appointed a value: 4 for almost always, 3 for on a regular basis, 2 for situational, and 1 for seldom. Hence the lowest and the highest possible scores that could be obtained on this questionnaire ranged from 30 to 120 revealing the level of reflectivity. The one who gets a score

below 75 is in the technical level of reflectivity. The scores between 75 and 104 indicate that the respondent is in the contextual level of reflectivity while the scores between 105 and 120 denote a dialectical level of reflectivity. Besides, the first 15 of the statements on the instrument were formulated to be considered when confronted with a problem situation in the classroom while other 15 statements needed to be considered while preparing, implementing, and assessing a lesson plan. In other words, the instrument measured participants' reflectivity on these aspects of teaching.

Among all the models and instruments that measure reflectivity, the one developed by Taggart and Wilson was selected to be used in this study because of the fact that the instrument both allows quantitative data collection with its four-point scale and qualitative data analysis through its corresponding rubric driven from the reflective thinking pyramid. In this rubric, the level descriptors, i.e. the behaviours that are expected of teachers at each reflectivity level, have been clearly defined, which makes it possible to use it as a coding framework in the qualitative data analysis (See Appendix B). Yet, before the administration of this instrument expert opinion was taken to validate if level describing statements in the Reflective Thinking Pyramids match with the items in the questionnaire.

The reliability of this instrument has been established in many studies conducted previously (e.g. Warden, 2004; Gencer, 2008; Gönen, 2016). Cronbach Alpha values found in these studies ranged from 0.77 and 0.91. In the current study Cronbach Alpha was found to be 0.91, which means that the reliability of the instrument is quite high (Stemler, 2001). The results of item total statistics and reliability have been shown in Appendix C.

#### **3.3.2 Reflective Reports**

Reflective reports constituted the qualitative data collection part of the study through which actual reflectivity levels of pre-service ELT teachers were investigated. Reflective writing provides a process-oriented assessment of the learning and practice experience of PSTs. Through reflective reports, they can monitor their practices and notice the obstacles during the practice teaching, analyse their performance with strengths and weaknesses, and plan to improve performance in their practice. (Raw, Brigden & Gupta, 2005). During the practicum period, participants of the study wrote four different types of reflective reports; namely, self-evaluation reports, peer evaluation reports, weekly observation reports, and overall evaluation reports. In the self-evaluation and peer-evaluation reports written right after each teaching, PSTs were expected to evaluate themselves and their peers in terms of the accomplishment of the goals they set in their lesson plan, strengths and weaknesses of their teaching, the effectiveness of the methods used, and how the problems they encountered were handled during the practice. In the weekly observation reports, they wrote reflective reports about the teaching of cooperating teachers they observed throughout the week. In these tasks, pre-service EFL teachers were encouraged to talk about any aspect of teaching that took their attention, think of solutions to the problems they observed and justify the ideas they put forward. Finally, at the end of practicum period, they were asked to write an overall evaluation report in which they reflected on the whole practicum experience in terms of its contribution to their professional development. In the practicum guide they were given at the beginning of the semester, the following focuses were given to them to mention in their overall reflections:

• What do you see as your strengths and weaknesses as a teacher in a language classroom?

- What progress do you feel you made during the course of practicum?
- What aspects of your teaching do you think you should continue to develop as a teacher?
- What strategies will you use to continue to develop as a teacher?
- How did the practicum affect you, both positively and negatively?
- What recommendations do you have for the program to improve the practicum experience in general?

To sum up, although the expectations with regard to what they should reflect upon was shared with them while writing their self and peer evaluation, and weekly observation reports, they are not given specific questions to address to in their writings. In the overall evaluation reports, however, they were given some focus questions mainly to prevent them from repeating what they already reported in their previous tasks, and to help them evaluate the practicum in terms of its contribution to their development as language teachers with some future recommendations.

Participants were given the liberty to express their reflections in the language they felt more comfortable with, because the purpose was not to evaluate how well they express themselves in English, but to find how they reflect on their observations.

## **3.4 Data Collection Procedure**

As soon as the Spring semester started, PSTs were sent to their practicum schools to get the schedule of their cooperating teachers to be able to start their observations and plan their teaching immediately. As soon as the observations began, they started to write their weekly observation reports. Throughout the 14-week practicum, they wrote 14 weekly observation reports, four self-evaluation reports, four peer-evaluation reports, and one overall evaluation report. That means each one of them wrote 23 reflection reports in total. Towards the end of the spring semester, the PSTs were administered the Profile of Reflective Thinking Attribute Instrument. As the questionnaire included statements that could be answered only by those with teaching experience, it was not implemented at the beginning of the semester, but after the participants started to do their lesson planning and teaching at their practicum schools. After the calculation of scores obtained by 70 participating PSTs, nine of them were selected for the investigation of actual level of reflectivity. Among all the participants only three obtained a technical score below 75. Thus, they were selected as the technical level participants of the study. Among others, three participants who received a score between 75 and 104 were randomly selected as the contextual level participants of the study, and finally three other participants who received a score between 105 and 120 were randomly selected to be the dialectical level participants of the study. Hence, number of participants in the qualitative part of the study was limited to nine PSTs. However, this was necessary for practicality reasons. Otherwise, it would not be that feasible to analyse all 1610 reports (i.e. 23 reports by 70 participants) obtained throughout the semester. In addition to this, since only three of 70 participants obtained a score at technical level, the other two levels were also represented by three selected participants to make the number of participants equal in each reflectivity level.

#### **3.5 Data Analysis**

# 3.5.1 Analysis of quantitative data

The quantitative data of the study that came from the Profile of Reflective Thinking Attribute Instrument was analysed through SPSS 21.00 (Statistical Package for Social Sciences) for its item-total statistics, reliability, and the descriptive statistics (mean, median, mode and standard deviation) of the scores in each reflectivity level. Participants' total scores were also calculated to determine their perceived reflectivity levels. As mentioned above, the scores below 75 referred to technical level reflection while the scores between 75 and 104 referred to contextual level and the scores between 105 and 120 to dialectical level of reflectivity.

## **3.5.2 Analysis of qualitative data**

Content analysis was done to analyse the qualitative data obtained through 207 reflective reports written by nine PSTs. Content analysis is a research technique in qualitative approach used to identify the recurrent themes in the textual data. Rubric developed by Taggart and Wilson to represent their three reflection levels was used as the coding scheme of the study. In this rubric, they clearly defined the behaviours expected of a technical, contextual, and dialectical level teacher. Each of these behaviours represented by codes formulated by the researcher for the purpose of analysis comprised the themes in each reflectivity level (See Appendix B). The first step in the analysis process was to read reflective reports of PSTs several times to specify the codes to determine reflectivity level. Sentence was taken as the unit of analysis. That is, each statement in the reflection reports was coded to determine the type of reflection made after multiple readings. This type of coding made the quantification of the data possible to determine participants' actual level of

reflectivity, because the frequency count of the codes in each level revealed the extent to which they were reflected in each type of report.

Next step involved the coding of data through a second rater, with a Ph.D degree in ELT, who were trained on the definitions of reflectivity levels in the coding framework. She analysed 30 % of randomly selected reports, and then the codings of two raters were compared using a Miles & Huberman's (1994) formula to calculate inter-rater reliability. The number of agreements was divided to total number of disagreements and agreements, multiplied by 100. Inter-rater reliability was found to be high with a value of 88 %. Two raters later tried to reach a consensus on the coding of statements on which they initially disagreed.

#### **4. RESULTS**

This section presents the results of data obtained through the Profile of Reflective Thinking Attribute Instrument, and qualitative data obtained through the content analyses of the reflective observation reports which are self-evaluation, peerevaluation, weekly observation and overall evaluation reports of practicum experience.

# 4.1 Results Related to First Research Question

In order to answer the first research question, *What are the perceived reflectivity levels of EFL PSTs who go through practicum experience?*, the total scores obtained by 70 participants on the questionnaire were calculated, and the number and percentage of PSTs whose scores revealed technical, contextual and dialectical level reflectivity were found. The following table shows the distribution of participants (PSTs) at these levels with the descriptive statistics (i.e. mean, median, mode and standard deviations) of their scores.

# Table 1

Distribution of the Total Scores Obtained on the Profile of Reflective Thinking

	Dialectical Level	Contextual Level	Technical Level	
	120 - 105	104-75	74-0	Total
N (%)	20 (29)	47 (67)	3 (4)	70 (100)
Mean	109,65	94,20	70	97,6
Median	107,5	94,50	70	100
Mode	105	98	69&70&71	98
SD	4,9	7,7	1	11,4

Attribute Instrument and Descriptive Statistics

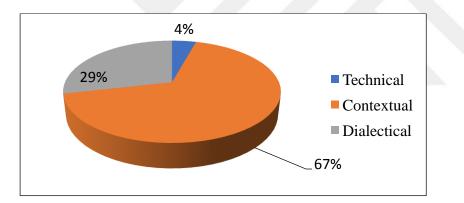


Figure 4. PSTs Perceived Level of Reflectivity

Table 1 and Figure 4 show that only 3 (4%) of the 70 respondents received a score below 75, i.e 69, 70 and 71, which shows that their perceived reflectivity is at technical level. Majority of the participants, 47 (67%), received a score between 104-75 with a mode score of 98, which shows that their perceived level of reflectivity is at contextual level. 20 (29%) of the participants, on the other hand, received a total score between 120-105, which shows that they are at dialectical level. The number

and percentage of the participants for each statement on the questionnaire is also provided in Appendix D.

# 4.2 Results Related to Second Research Question

In this section, the results of the qualitative part of the study were summarized to answer the sub questions of the second research question. Using Taggart and Wilson's Reflective Thinking Pyramid as the coding framework content analysis was conducted on a total of 207 reflective reports performed by each of the selected participants at technical, contextual and dialectical levels. The results are as follows:

4.2.1 What are pre-service EFL teachers' actual reflectivity levels on the reflective reports assigned during the practicum?

The answer for this question came from the analysis of reflective reports, namely four self-evaluation, four peer-evaluation, 14 weekly observation, and 1 overall evaluation reports, written by each of nine participants. PSTs were given a number in the following tables (eg. PST1) for easy identification and presentation of their results. Besides, some excerpts were also provided in this section to illustrate the reflections they did at each level.

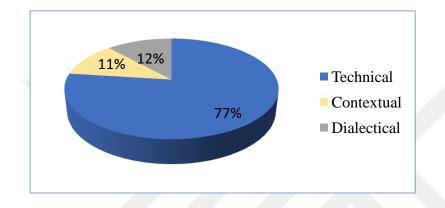
# 4.2.1.1 PST1'S Actual level of reflectivity.

In reflective reports of PST1, a total of 187 units of reflection was identified as shown in Table 2 and Figure 5. 144 of these reflections were found to be technical level of reflections in which the participant simply described what she did in her teaching or observed in the class. Technical level reflections made up the 77% of all reflections identified in the reports of participants.

# Table 2

	Technical Level		Contextual Level		Dialectical Level		Total
	f	%	f	%	F	%	F
PST1	144	77	21	11	22	12	187

Frequency and Percentage of Units in all Reflective reports of PST1



# Figure 5. PST1's Actual Level of Reflectivity

Following excerpt from her self-evaluation report illustrates technical level of reflection.

"Before opening the book, I explained the rules of the action verbs and I made the students guess the right action verb by making them look at the pictures. When this mini-game was finished, they opened their books. There were several pictures in the first exercise of the book. I wanted the students to look at those pictures and think about what was happening in there. Students shared their ideas about the story and that activity was finished. After this activity, I made the students do the filling in the blanks activity, and made them read a passage and answer the questions about it." (Self-evaluation Report) In this excerpt, PST1 made a simple description of the lesson concerning its stages along with the materials and activities used in practice teaching. Reflections at technical level in Reflective Thinking Pyramid also include practices, methods and behaviors related to teaching. Teachers ignore alternative solutions, students ' understanding, feelings, and characteristics while focusing on achieving the objectives set out in the plan in their practice.

Table 2 also shows that the participant made dialectical level reflections 22 times and contextual level reflections 21 times which made up 12% and 11% of all reflections identified respectively. Following excerpts illustrate how she makes reflections in these levels.

"In addition, distributing worksheets may cause some problems about my classroom management skills. Because of this situation, I thought that putting exercises about the topic in the PowerPoint slides would be a good idea."

(Self-evaluation Report)

The excerpt above is an example of contextual level reflection. PST1 reflected on situations in the context, and questioned herself on how her action could affect her practices. She also made alternative decisions for her concern for a better teaching.

In the following excerpt, however, she made dialectical reflection, because her main concern was social facts that affected her instructional planning.

"I always had problems with finding creative activities, since I studied in government schools until university and those schools only taught English to us by utilizing from the student's book." (Self-evaluation Report)

# 4.2.1.2 PST2's actual level of reflectivity

Table 3 and Figure 6 reveal the results of the reflections found in PST2's reflective reports. The majority of 153 reflections were identified at the contextual level.

Table 3

Contextual Level **Technical Level Dialectical Level** Total F f F f % % % PST2 78 66 43 51 9 6 153

Frequency and Percentage of Units in Reflective reports of PST2

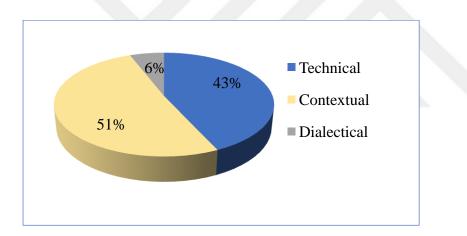


Figure 6. PST2'S Actual Level of Reflectivity

The Table 3 shows that 78 contextual reflections she made comprised 51% of her total reflections while 66 technical level reflections comprised 43% of all reflections. Dialectical level reflections were identified only 9 times in her reports, which made 6% of all reflections. Excerpt below taken from her peer-evaluation reports illustrates one of her contextual level reflections

"His most powerful side to me is that, he could find proper and fun activities according to the students' levels and need. On the other hand, there are some parts that he must work on. One of them is to have all of the students control and the other is to spend less time with distracted students." (Peer Observation Report)

In this excerpt, PST2 reflects upon the practices that have an effect on students' learning and tries to look for alternatives based on the knowledge. Not only did PST2 make definitive statements about the application of the lesson as desired, but also about what else could have been done while implementing the plan. Although PST2's reflectivity level is at contextual, she also made technical and dialectical reflections in her reflective reports. Following excerpts are examples of technical and dialectical level reflections.

"This week 5th graders started the class by answering some questions of a toy, which was vocalized by the teacher, as a warm-up activity. The topic was Heroes, so the questions were related to the topic. After I observed the 2nd graders, they were learning the 'may I have some...' structure. To open up, the teacher wanted the students to form sentences with that structure which she wrote to the board beforehand." (Weekly Observation)

In this excerpt, PST2 made technical level reflection because she focused on the implementation of activities she observed during practicum and made simple description of cooperating teacher's practice.

In the following excerpt, however, PST2 made reflection at dialectical level. She was aware of what she did, and what she will do in the future for a better teaching. She was also able to achieve self-actualization and selfunderstanding as a result of her experience in her practicum "During my practicum experience, I become more confident towards students. Also, I was not doing things for the sake of just doing but I was more aware of the purposes of the activities and the strategies that I used." (Overall Evaluation Report)

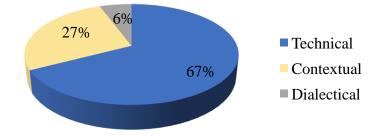
# 4.2.1.3 PST3's actual level of reflectivity

In the reflective reports of PST3, a total of 141 reflections were identified. 95 of these was found at technical level and comprised 67% of all, while 38 was identified at contextual level and comprised 27% of all reflections. Similar to the previous participant, dialectical level reflections comprised 6% of all reflections identified in the reports of this participant as shown in Table 4 and Figure7.

Table 4

	Technical Level		Contextual Level		Dialectical Level		Total
	f	%	f	%	F	%	F
PST3	95	67	38	27	8	6	141

Frequency and Percentage of Units in Reflective reports of PST3



# Figure 7. PST3's Actual Level of Reflectivity

The excerpt below illustrates the main characteristics of technical level reflection since PST3 concentrates on the topics discussed, methods used, materials

prepared and in-class activities that will enable student participation. The participant uses descriptive expressions while focusing on these parts.

"I recapped present continuous tense in this class. After my warm-up, I made them watch a video and stopped from time to time to ask questions like What is he doing, what is she doing, what is he riding, what is she watching?and elicit answers in present cont. form from the students. Then I gave them a board game sheet, each student was supposed to make present continuous form of the pictures (a man eating ice cream, two people fighting, a woman sleeping etc.) one by one. Another worksheet I gave had pictures and the students were supposed to write what they were doing under the pictures. (What are they doing? - They are jumping ropes etc.)" (Self-evaluation Report)

In the excerpt given below taken from PST3' s overall evaluation, contextual level is apparent since her main concern was to assess the outcome of actions. She was also looking for alternatives to observed practice, which is the feature of contextual level of reflection described in Reflective Thinking Pyramid.

"I mainly observed elementary school grades, I believe it is going to help me when I get a job since we all start from kindergarten or elementary levels. Another point is that there is no class without the help of technology nowadays. So we got used to getting help from smart board. First and second graders need short breaks from class (games preferably) sometimes so they can release their energy and focus on class again because their attention span is very short. I saw students who were grounded with break time. They looked very mad and unhappy; it is also preventing them from meeting their basic needs so I'm not planning to do that." (Overall Evaluation Report)

Excerpt below, however, illustrates her dialectical level of reflection where the PST criticized the system in the cooperating school, and reflected on how school policy affected her schedule to actualize her practice teaching.

"To mention some cons, I had difficulties with arranging my schedule and it was changed many times which I found unprofessional. We were not informed about cancelled classes and upcoming holidays that are not in Ministry of Education's official calendar." (Overall Evaluation Report)

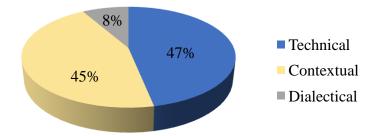
# 4.2.1.4 PST4's actual level of reflectivity

Table 5 and Figure 8 show that in the reflective reports of PST4 a total of 156 reflections were identified. 73 (47%) and 70 (45%) of these were found to be at technical and contextual levels respectively. This participant made dialectical level reflections 13 times in her reports.

## Table 5

	Technical Level		Conte	xtual Level	Diale	ectical Level	Total
	f	%	f	%	f	%	f
PST4	73	47	70	45	13	8	156

Frequency and Percentage of Units in Reflective reports of PST4



# Figure 8. PST4's Actual Level of Reflectivity

The following excerpt taken from her technical level reflections reveal that the focus of PST4 is task oriented, and her concern is to meet the objectives of the lesson plan. Without analysing the situation she makes simple descriptions of the lesson, and reflects on the appropriateness of the methods and materials used, the relationship between the methods and teaching skills.

"The teacher's language was quite good, and also it was suitable for the students' understanding. He explained every activity with the simple words. The teacher's lesson plan was well-prepared, because every activity followed each other in a meaningful order. He followed his lesson plan almost exactly. The time management was quite good because he did everything that he planned" (Peer Evaluation Report)

The excerpt below illustrates her contextual reflection. PST4 tries to produce alternative practice, and thinks about how her practice can have impact on students learning.

"I figured out that the students could ask some questions or want to repeat the topic. However, I could have added more speaking activities to my lesson plan, although I tried to make them speak. I thought ahead what my students would ask me or when they would get bored" (Self Evaluation Report)

The excerpt below illustrates PST4's dialectical level of reflection in which she explored the meaning of being a good teacher.

"I have been thinking about since last week about the image of a being teacher and I think that there are no stereotype teachers. I think what makes a teacher good, that are teacher's ideas and beliefs." (Weekly

Observation Reports)

This internal dialogue reveals that PST4 care about her empowerment to be a better practitioner with a moral concern in her mind.

# 4.2.1.5 PST5's actual level of reflectivity

This participant made a total of 230 reflections in her reports. As shown in Table 6 and Figure 9, 161 (70%) of these were at technical level. Except for 3 units that involved dialectical level reflections, the rest was at contextual level that comprised the 29 % of all reflections.

# Table 6

	Technical Level		Contextu	Contextual Level		ctical Level	Total
	f	%	F	%	f	%	f
PST5	161	70	66	29	3	1	230

Frequency and Percentage of Units in Reflective reports of PST5

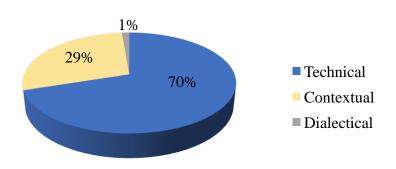


Figure 9. PST5's Actual Level of Reflectivity

The following quotations show PST5' technical level of reflection in selfevaluation report:

"I gave them questions about the text. Before they listened, I wrote some vocabulary on the board that I thought they did not know. They listened to the text two times and answered the questions. My last activity was game. I prepared flash cards for them. I created 2 groups Group A and Group B. One student from each group came to the board by turns and picked a flashcard. S/he tried to describe the animal in the flashcard to his/her group mates." (Self-evaluation Report)

Following excerpt illustrates a contextual level reflection of hers in one of the peer-evaluation reports she wrote:

"However, the time was not enough for the students, because I think that the students did not get the topic completely. That is why, he explained all the rules over and over again. Because of this trouble, he lost lots of time and he did not have time for last activity. In my opinion, he should have considered this problem while preparing his lesson plan." (Peer Evaluation Report)

# 4.2.1.6 PST6's actual level of reflectivity

Table 7 and Figure 10 illustrate that of 258 total reflections identified in the reports of PST6, 124 were found to be at technical level comprising 48% of all reflections. It was followed by 99 reflections at contextual level and 38 at dialectical level comprising 38% and 14% of all reflections respectively.

# Table 7

	Technical Level		Contextu	xtual Level D		ctical Level	Total
	f	%	f	%	f	%	f
PST6	124	48	99	38	35	14	258

Frequency and Percentage of Units in Reflective reports of PST6

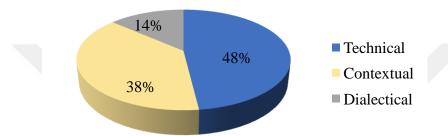


Figure 10. PST6's Actual Level of Reflectivity

One representative of technical level reflection from PST6's self-evaluation reports is shown below:

"My aim in lesson 'prepositional pharses' is to convey this to students in the best way. When I planning the macro- teaching exercise, I worked a week for macro teaching. I taught preposition in accordance with the students' level. There are two listening and one speaking parts in the macro teaching. I tried that I do try my best while macro teaching." (Self-evaluation Report)

Following two excerpts, however, illustrate how she made reflections at contextual and dialectical level of reflections in her reflective reports.

"She led the activity according to students' interest; she managed to take their attention to join the activity. Making them cooperate also encouraged the students to participate the activity. Through 40 minutes, she managed to keep students active, but she could have used more materials such as visuals or audios. Cooperation among students is more useful than competition among them as it encourages the communication among them. Generally, she was good making them participate." (Peer Evaluation Report)

Above excerpt is the sample of contextual level of reflection since PST6 suggests alternative activities based on the knowledge by questioning its possible effects on students' learning. Besides, among all PSTs, PST6 was the one who made dialectical level reflections most frequently (f=35). The excerpt below taken from her overall evaluation report illustrates how she made dialectical level reflections.

"I could make better use of the available technology in the class with the students. I will always be a good teacher, I will aim to be fruitful beyond goodness, and I will make a point of view without prejudice, and I made a promise to myself from the moment I began to experience the teaching profession. I will strive to turn all disadvantages into advantage. I will not depend on fixed assumptions. I will do research and transfer student subjects in this way." (Overall Evaluation Report)

Here PST6 questions the differences between goals and practice by drawing implications for future professional applications as suggested by the descriptors of dialectical level reflection

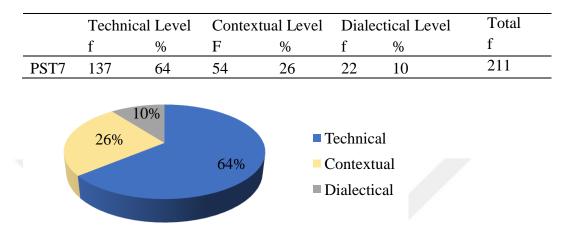
#### 4.2.1.7 PST7's actual level of reflectivity

In PST7's written reports, a total of 211 reflective units were identified. Of 211, 137 (67%) represented technical level reflections; 54 (26%) contextual level

reflections and 22 (10%) dialectical level reflections as shown in Table 8 and Figure 11.

#### Table 8

#### Frequency and Percentage of Units in Reflective reports of PST7



#### Figure 11. PST7's Actual Level of Reflectivity

Below are the quotations showing PST7's technical level reflection: "This week our topic was the life cycle of a ladybug, first I introduced them to the topic with the help of a hand-made ladybug, second with the help of four flash cards we studied the stages of the life cycle, third we watched a video clip, which I vocalized, and finally some handiwork; making ladybugs" (Self-evaluation Report)

Excerpt from her self-evaluation report exemplifies her main focus on the processes of instruction. She also seemed task oriented with her detailed description of materials used in the class.

"I respect each learner and I am fully aware that they are independent and clever human beings and that they are not like one another at all." (Self-Evaluation Report) The excerpt above illustrates one of the main characteristics of dialectical level of reflection. Here, PST7's main concern is her students and she is aware of that each students is unique, and equality is one of the concerns of a dialectical practitioner who gives no credit to personal bias.

#### 4.2.1.8 PST8's actual level of reflectivity

In the reports of PST8, a total of 157 reflective units were identified. 108 of these belonged to technical level representing 69% of all reflections; 43 to contextual level representing 27%; and final 6 to dialectical level representing 4% of all reflections as seen in Table 9 and Figure 12.

Table 9

Frequency and Percentage of Units in Reflective reports of PST8

	Technical Level		Contextu	ual Level	Dialectical Level Tota		Total
	f	%	f	%	f	%	F
PST8	108	69	43	27	6	4	157

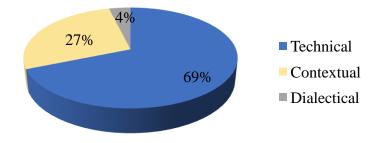


Figure 12. PST8's Actual Level of Reflectivity

Following excerpt illustrates her typical reflections at technical level.

"I used PowerPoint for my second activity. There are many visuals in the PowerPoint. First, I showed my Picture and I said that I am Turkish, I am from Turkey. Then, I showed the pictures of foreign people. I showed the pictures of the 13 foreign people and I talked about their nationalities and countries. Then, I asked about the students' countries and nationalities. I wanted to teach about these countries." (Self-evaluation Reports)

In the quotation above, PST8's concern was teaching aid used in practice and implementation of activities. She simply described her observation without looking for alternatives, and getting focused on the problems encountered. In the following excerpt, however, PST8 cares about her students' feelings and equality in classroom, which is a behaviour expected of a dialectical level teacher.

"If I were the teacher, I would give each student equal chance of participation by calling out their names one by one" (Weekly Observation reports)

#### 4.2.1.9 PST9's actual level of reflectivity

Finally, in the reflective reports of PST9 a total of 232 reflections were identified. 154 of these were at technical level comprising 66% of all reflections. 53 and 25, however, were at contextual and dialectical levels comprising 23% and 11% of all reflections respectively as seen in Table 10 and Figure 13.

#### Table 10

#### Frequency and Percentage of Units in Reflective reports of PST9

 Technical Level		Contextu	ontextual Level		tical Level	Total	
f	%	f	%	f	%	f	

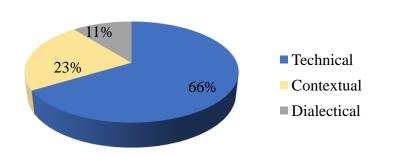


Figure 13. PST9's Actual Level of Reflectivity

Below is a quotation representing a technical level of reflection.

"After the first hour I took control and I began talking about Action Verbs a little more. The teacher stated that they should focus on "Looking for", so after recalling their knowledge I made up a game which is very similar with "I spy". A student comes to the board and says "I am looking for something red.", for example. The students start looking for red objects. They ask questions like "Are you looking for a pencil case?" or if they want details, they say "Does this object have a zipper?". When a student answers it correctly, he/she comes to the board and it continues." (Selfevaluation Report)

In this excerpt her main concern was about technical aspect of teaching like other technical level participants of the study. She just describes her observations in relation to the use of materials without considering students' needs and understanding. Two excerpts from her reflection reports below illustrate how she made other types of reflections. "The students had a hard time following the slides because the texts were very small and the activities were not fun for them at all. Just because her presentation was filled with texts, the students tried to read each slide while she was trying to explain new grammar rules so there was a little disconnection between her and the class." (Peer Evaluation Report)

In this excerpt, PST9 recognizes the weak aspects of her peer's teaching and criticizes the selection of materials that affect students' learning.

"I could handle the lesson well even though I was not prepared at all. After this lesson I gained self-confidence about teaching and this made me feel happy." (Self-evaluation Report)

Excerpt above illustrates one of her dialectical reflections where she evaluated the lesson in terms of its contribution to her elevated self-confidence. In a way, she achieves self-actualization as expected in a dialectical level reflection. Self-efficacy, self-actualization and self-confidence were among the descriptors of dialectical level reflection.

# 4.2.2 To what extent do their actual reflectivity and perceived reflectivity levels match?

Table 11 summarizes PSTs' perceived and actual levels of reflectivity as revealed by the analysis of quantitative and qualitative data to show the correspondence between them.

Table 11

PSTs' perceived and actual levels of reflection

Level of Reflection on	Level of Reflection in
Questionnaire (Score	Reflective Reports
obtained on the instrument)	

PST1	Technical Level (70)	Technical Level
PST2	Technical Level (69)	Contextual Level
PST3	Technical Level (71)	Technical Level
PST4	Contextual Level (98)	Technical Level
PST5	Contextual Level (89)	Technical Level
PST6	Contextual Level (93)	Technical Level
PST7	Dialectical Level (115)	Technical Level
PST8	Dialectical Level (117)	Technical Level
PST9	Dialectical Level (109)	Technical Level

Table 11 shows that PST1 and PST3 are the only participants of the study whose perceived and actual reflectivity levels match. PST2's actual reflectivity level is higher than her perceived level reflectivity. However, the rest of the participants whose perceived reflections were at contextual and dialectical levels were not found to be that reflective in their reports. These participants mostly did technical level reflections in their reports. Besides, no participant of the study was actually found to be at dialectical level of reflectivity.

# 4.2.3 Do their actual reflectivity levels change depending on reflective tasks?

The answer for this sub-question came from the distribution of total number of units identified with technical, contextual, and dialectical reflections to the reflective tasks written by nine PSTs. A total of 1725 reflections were found as a result of content analysis in four reflective tasks. 547 of these were identified in 36 selfevaluation reports (4 reports by 9 participants) and comprised the 32% of all reflections. 500 of these were identified in 36 peer observation reports (4X9) and comprised 29% of all reflections. In 126 (14X9) weekly observation reports, 485 reflections were identified which made 28% of all reflections. Finally, in 9 (1X9) overall evaluation reports, 193 reflections were identified, which made 11% of all reflections. These findings are shown in the following Table 12. In this table TL, CL and DL refer to technical, contextual, and dialectical levels of reflection.

#### Table 12

		Self- evaluation reports N=36	Peer- evaluation reports N=36	Weekly observation reports N=126	Overall evaluation reports N=9	Total Reflec tions
PST1	TL	49 (82%)	69 (88%)	19 (83%)	7 (27%)	
	CL	0 (0%)	9 (12%)	4 (17%)	8 (31%)	187
	DL	11 (18%)	0 (0%)	0 (0%)	11 (42%)	
PST2	TL	26 (46%)	15 (39%)	21 (64%)	4 (17%)	
	CL	29 (51%)	24 (61%)	11 (33%)	14 (58%)	153
	DL	2 (3%)	0 (0%)	1 (3%)	6 (25%)	
PST3	TL	23 (66%)	26 (70%)	42 (88%)	4 (19%)	
	CL	10 (29%)	11 (30%)	6 (12%)	11 (52%)	141
	DL	2 (5%)	0 (0%)	0 (0%)	6 (29%)	
PST4	TL	22 (45%)	27 (57%)	17 (%)	7 (47%)	
	CL	25 (51%)	19 (40%)	19 (%)	7 (47%)	156
	DL	2 (4%)	1 (3%)	9 (20%)	1 (6%)	
PST5	TL	64 (70%)	43 (72%)	45 (47%)	9 (53%)	
	CL	27 (29%)	17 (28%)	14 (23%)	8 (47%)	230
	DL	1 (1%)	0 (0%)	2 (3%)	0 (0%)	

PSTs' Reflectivity Level in Different Tasks

PST6	TL	18 (26%)	20 (32%)	80 (78%)	6 (25%)	
	CL	42 (61%)	38 (60%)	16 (16%)	3 (13%)	258
	DL	9 (17%)	5 (8%)	6 (6%)	15 (62%)	
PST7	TL	46 (67%)	25 (49%)	55 (72%)	9 (60%)	
	CL	16 (23%)	22 (43%)	14 (18%)	2 (13%)	211
	DL	7 (10%)	4 (8%)	7 (10%)	4 (27%)	
PST8	TL	17 (68%)	47 (68%)	35 (85%)	9 (41%)	
	CL	6 (24%)	20 (29%)	6 (15%)	11 (50%)	157
	DL	2 (8%)	2 (3%)	0 (0%)	2 (9%)	
PST9	TL	65 (71%)	35 (63%)	40 (71%)	14 (48%)	
	CL	20 (22%)	17 (30%)	10 (18%)	6 (21%)	
	DL	6 (7%)	4 (7%)	6 (11%)	9 (31%)	232
Total		547 (32%)	500 (29%)	485 (28%)	193 (11%)	1725

According to this table PST1, whose actual reflectivity was technical, made 49 (82%) of all reflections in self-evaluation reports at technical level, 69 (88%) of all reflections in peer observation reports at technical level and 19 (83%) of all reflections at weekly observation report at technical level. However, in overall evaluation reports, 11 (42%) of all reflections were made at dialectical level. In other words, this reflectivity level changed in overall evaluation reports.

PST2, whose actual reflectivity level was contextual, made 29 (51%), 24 (61%), and 14 (58%) of all reflections done in self-evaluation, peer observation and overall evaluation reports respectively at contextual level. In weekly observation reports, however, she made 21 (64%) of all reflections at technical level. In other words, this participants' reflectivity decreased in level in weekly observation reports.

Table 12 shows that PST3, whose actual reflection level was technical, also made reflections at technical level in self-evaluation (66%), peer observation (70%) and weekly observation reports (88%). However, she made 52% of all reflections done in overall evaluation reports at contextual level.

PST4, whose actual reflectivity was at technical level, made 25 (51%) of all reflections identified in self-evaluation reports at contextual level and 27 (57%) of all reflections in peer observation reports at technical level. In weekly observation reports, 19 (42%) of all reflections were made at contextual level, however, in overall evaluation report, equal number of reflections (47%) were identified both at technical and contextual levels.

PST5, whose actual reflectivity was at technical level, made 64 (70%), 43 (72%), 45 (74%) and 9 (53%) of all reflections at technical level in her self-evaluation reports, peer evaluation reports, weekly observation reports, and overall evaluation reports respectively. In other words, PST5's reflectivity level did not change depending on the reflective task.

As for PST6 whose actual level of reflection was technical, she made 42 (61%) and 38 (60%) of all reflections at technical level, made 42 (61%) and 38 (60%) of all reflections at contextual level in self and peer evaluation reports respectively. In weekly observation reports, however, she made 80 (78%) of all reflections at technical level. Besides, 15 (62%) of all reflections was at dialectical level in her overall evaluation reports. In other words, PST6's level of reflections increased in her overall evaluation report.

PST7, whose actual reflectivity level was technical, made 46 (67%), 25 (49%), 55 (72%) and 9 (60 %) of all reflections at technical level as well in her self-

evaluation reports, peer evaluation reports, weekly observation reports, and overall evaluation reports respectively. In other words, like PST5, PST7's reflectivity level did not change in her reflection reports.

As it is illustrated in Table 12, PST9, whose actual reflectivity level was technical, made 65 (71%), 35 (83%), 35 (83%), 40 (71%) and 14 (48%) of all reflections at technical level in her self-evaluation report, peer evaluation report, weekly observation reports and overall evaluation report respectively. That means PST9's reflectivity level remained the same in her reflection reports and matched with her actual reflectivity level.

In the light of all these, following Table 13 summarized each PSTs' changing level of reflectivity depending on the reflective tasks.

#### Table 13

	Actual Level of reflection	Self- Evaluation Report	Peer Observation Report	Weekly Observation Report	Overall Evaluation Report
PST1	Technical	Technical	Technical	Technical	Dialectical
PST2	Contextual	Contextual	Contextual	Technical	Contextual
PST3	Technical	Technical	Technical	Technical	Contextual
PST4	Technical	Contextual	Technical	Contextual	Contextual/
PST5	Technical	Technical	Technical	Technical	Dialectical Technical
PST6	Technical	Contextual	Contextual	Technical	Dialectical
PST7	Technical	Technical	Technical	Technical	Technical
PST8	Technical	Technical	Technical	Technical	Contextual
PST9	Technical	Technical	Technical	Technical	Technical

PSTs' reflectivity levels depending on the reflective tasks.

PST5, PST7 and PST9, whose actual reflectivity level was technical, were also reflective at technical level in all reports. In that sense their reflectivity was not affected by the type of reflective task. On the other hand, PST3 and PST8, whose reflectivity level was technical, became more reflective at contextual level in their overall evaluation reports. PST2, whose actual reflectivity level was contextual, was found to be contextual in three of the four types of reflective reports. Her reflectivity level changed only in her weekly observation reports in which she became more technical. The reflections of PST1's, whose actual reflectivity level was technical, only changed in her overall evaluation report to become more dialectical. PST4, whose reflectivity level was also technical, became contextual in her self-evaluation reports and weekly observation report. Finally, PST6, who was actually at technical level, became more contextual in her self-evaluation and peer observation reports, and dialectical in overall evaluation report. Hence her reflectivity remained the same only in weekly observation reports.

The table also reveals that weekly observation reports do not promote higher levels of reflectivity. Except for one participant all were at the technical level in these reports. On the other hand, overall evaluation reports encouraged the higher levels of reflection more than the other tasks. Except for three participants (i.e. PST5, PST7 & PST9), the rest was either at contextual or dialectical levels.

#### **5. DISCUSSION and CONCLUSION**

The current study aimed to explore perceived and actual levels of reflectivity of pre-service EFL teachers who are doing their practice teaching in cooperating schools to see if there is a correspondence between these two, and to see if their actual levels of reflectivity change depending on the type of reflective observation reports they were assigned throughout the practicum experience. For this purpose, taking the definitions of reflectivity suggested by Taggart and Wilson as the theoretical basis of the study, the study used both quantitative and qualitative means to measure how these prospective teachers perceive themselves to be reflective and how reflective they actually are in the reports they were supposed to submit to their university supervisors to complete their practicum. The findings of the study are summarized and discussed within the framework of related literature in this section by drawing significant implications that will shed light into the improvement of reflective mindset in initial teacher education programs.

#### 5.1 PSTs' perceptions of reflectivity

The quantitative findings of the study showed that pre-service EFL teachers' perceived levels of reflectivity were mostly set in contextual level. In other words, the majority of the participants obtained a score that revealed their perceptions of contextual level of reflection. It was followed by dialectical level of reflection and technical level of reflection, which was the least perceived level of reflection attained by PSTs. At contextual level, the problem situations that cannot be found in the non-reflective structure of the technical level begin to be taken into consideration within the context of teaching (Taggart & Wilson, 1998). The practices that are based on increasing pedagogical knowledge and skills are questioned more critically in these

situations. The participants of the study seemed to be concerned with all these as they gained more experience in real classroom settings thanks to their practice teachings and observations throughout their practicum experience. Nurfaidah (2017) suggests that pre-service EFL teachers show deeper level of reflection at the end of practicum period than their initial level of reflection in the beginning of the practicum. When the time of administration of the Profile of Reflective Thinking Attribute Instrument was considered, this may explain why PSTs of the current study showed contextual level of reflection which is higher than their actual level. As noted by Griffin (2003), reflecting on practice that is constantly emphasized throughout the semester both through the reflective assignments and in-campus discussion meetings might have increased PSTs' perceptions of themselves as reflective teacher candidates. Their engagement with reflective activities might have helped them question their own beliefs, thoughts, and decisions in situations similar to those they observed in practicum. Although their perceptions were not at the most advanced level of dialectical reflection, their perceived levels of reflection were still higher than their actual levels of reflections.

#### 5.2 PSTs' actual levels of reflectivity on reflective tasks

The qualitative data gathered from reflective reports of nine pre-service EFL teachers revealed that they mostly focus on technical issues such as planning, time management, and activities in their reports, which made their reflections at technical level unlike their perceptions. This finding concurs with the findings of previous studies that concluded PSTs attach importance to technical aspects of their teaching practice (e.g. Tuncer & Özkan, 2018; Trujillo, Eduardo & Parra, 2012; Odabaşı & Palic, 2012; Abou Baker El-Dib, 2007, Seng, 2004). Valli (1993) stated that PSTs mostly used reflective expressions on issues like keeping the class under control, and

finishing the lesson on time. Literature acknowledges that kind of behaviour as a typical novice teacher behaviour. In other words, novice teachers are more likely to get concerned with aspects of their own teaching like how they conduct activities, how they manage the class, and if they implement their lesson plans the way they planned as opposed to experienced teachers who are more concerned with learning of their students. As Taggart and Wilson (2005) stated such concerns that mostly lead to technical level reflections rely on predetermined instructional outcomes and include the selection and implementation of appropriate steps to achieve these specified objectives. However, according to Hatton and Smith (1995) it is natural for PSTs to get focused on technical issues related to their teaching at the beginning of the development of their reflective thinking. Surely, development of reflective thinking can be achieved through effective, consistent and conscious reflectivity on personal experiences (Posner, 2005). Having experience is of great importance in that sense for the development of reflective thinking. Teacher candidates who do not have sufficient experience in educational problems and their solutions, however, generally reflect at technical level (Taggart & Wilson, 2005). With this regard, the findings corroborate the findings of Tuncer and Özkan (2018) indicating that pre-service EFL teachers are on the first level of reflection, and this is the result of not having enough experience and time for acquiring reflective thinking skills. With this respect, PSTs reflected on the adequacy of the lesson plans they prepare throughout their practice; they discussed the teaching methods, teaching materials, the duration of the course, ensuring student participation and the competency of teaching, which made PSTs to be at technical level of reflection.

Another reason for being at technical level can be explained by the nature of school experience and practice teaching courses as well as the tasks that participants

were required to complete throughout their practicum. PSTs can develop reflective thinking skills through different reflective tasks (Schön, 1987; Zeichner, 1992). However, as Sewall (2009) highlighted, the design of task has a considerable impact on PSTs' reflectivity. The focused observation tasks the participants were given during the first semester directed them to reflect upon the technical aspects of teaching such as classroom management, the structure and the planning of the lesson, and the use of materials and teaching aids. Although they were not given such focus during the second semester, the PSTs who are under the impression that their teaching practices are basically evaluated on these grounds might have set their minds on such technical aspects of teaching as reflected in their writings as opposed to their perceptions.

Although the frequency of units in reflective reports that involved statements of reflection determined most PSTs' actual reflectivity level as technical, the degree of their reflectivity has shown some variance depending on the type of reports. Data revealed that in the final task they were assigned at the end of the practicum, which is an overall evaluation report, they made more advanced level reflections. This can be explained by two reasons: First, as Langer (2002) pointed out guided reflective writing is the crucial part of developing reflective thinking and promotes higher level of reflection. In overall evaluation reports, they were supposed to write reflective reports in response to some evaluative questions that are not directly focused on some technical aspects of teaching but on the contribution of practicum on their own development as language teachers. In order to answer such questions, they needed to evaluate the whole experience from a broader perspective to share their professional understanding of the issues to make contribution to the future implementation of practice teaching. In that sense, the questions and the quality of these questions given to PSTs as part of their training in practicum are of great importance and should be focused on the quality of teaching and questioning values as suggested by Zeichner and Liston (1987) not merely on what teacher does in the classroom.

Another reason can be the time of that assignment. Overall evaluation report has been the final assignment of practicum. As explained by Lee (2005), time is a crucial factor that leads to change in reflectivity level. Despite the existence of some studies that revealed no changes in reflectivity levels of prospective teachers at the beginning and at the end of the practicum (eg. Armutçu & Yaman, 2010), reflectivity can be accepted as a skill acquired in time with the right type and amount of assignments guiding teachers. Hence, it is likely that the participants of the study who were encouraged to make reflections regularly throughout the practicum might have reached an advanced level of reflection eventually.

#### **5.3 Implications**

The study has important implications. Experience is an important means of improving the ability of reflectivity that makes knowledge more internalized and meaningful. Each new experience offers something new to learn that teachers can reflect upon. Therefore, school experience and teaching practice courses should be designed to increase the variety of experience supported with reflective tasks.

Reflective thinking can be defined as a process in which an individual examines a subject with a wider perspective with all its features. In reflective thinking education, the individual is given the ability to examine the events with another perspective as having a third-person view. Therefore, regular meeting with advisors should be actively used in school experience and teaching practice courses. By discussing different aspects of the problem situation, supervisors should help preservice teachers

identify problems in their systematic ways. By providing PSTs with the guiding tasks that focus their attention to all aspects of teaching, not only to its technical aspects, their awareness on the multidimensionality of teaching can be and should be increased. That kind of an approach should be taken as the priority of the initial teacher education programs to improve future teachers' reflective thinking skills at more contextual and dialectical levels.

In addition, raising PSTs' awareness on their actual levels of reflectivity should also be part of their training. Considering the significant role of raising awareness activities in the training of professionally developed teachers and in gaining lifelong learning skills, such activities that involve a considerable amount of reflection should be given place from the very first year of teacher education.

#### 5.4 Limitations and suggestions for further studies

The study has some limitations as well. Although it shows that the reflectivity levels of PSTs might change depending on the type and nature of reflective tasks assigned, the qualitative results of the study are limited to the data that came from 9 PSTs. Therefore, a further study can be conducted with larger amount of participants and larger amount of reflective tasks to be analysed. Besides, these studies can involve other types of reflective tasks like oral reflections or video-stimulated reflections.

The current study was conducted in EFL teacher education context with PSTs. Another study can be conducted with both pre-service and in-service EFL teachers to compare and contrast their perceived and actual levels of reflectivity. A further study can be suggested with a larger sample to investigate the factors that affect teachers' reflectivity, like their years of experience, personality traits, and learning preferences. Besides, as mentioned previously the current study did not aim to investigate the development of reflective thinking skills of participants. With that focus, a longitudinal study can be designed to get more insights into the development of their actual levels of reflectivity. Another limitation is related to the nature of data obtained through scales. The participants might give socially accepted answers on the questionnaire rather than revealing their actual feelings attitudes. The finding revealed that majority of PSTs perceived a score revealing their perception at conceptual level reflectivity may be explained by this. Participants may not have revealed their actual thoughts. Therefore, analysing their reports is important to reveal their actual reflectivity level. The future studies may also involve the observations of teachers. That way what they actually do and what they think they do can be compared to have an insightful understanding of their reflectivity.

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### APPENDICES

Reflection Levels	Codes	Level Descriptors
Technical Level	MSD	Make simple description of
	FBC	observations
		Focus on behaviors, content and
		skills from reading or course
	TOV	books without looking for
	101	alternatives
	UAE	Are task oriented, viewing
		teaching competency as meeting a
		set of objectives.
		Use appropriate educational
		vocabulary to correspond with
		current and pedagogy level.
	ROP	Reflect on practices as those
Contextual Level		practices affect students' learning.
	ROD	Reflect on decisions relative to the
		context of situation and external
	ROC	agents.
	RTP	Reflect on content related to
	FOC	student needs.
	LFA	Relate theory to practice.
		Focus on contextual situation
	AIC	Look for alternatives to practice
		based on knowledge and personal
	CAP	values.
		Assess implications and
	UPE	consequences of actions and
		beliefs.
		Clarification of assumptions and
		predispositions of practice and
		consequences.
		Understanding personal and
		environmental interactions are
		also desired outcome for teachers
Dialectical levels	SQP	Systematically questions
	SAT	practices.
	ROA	Suggests alternative and
	CME	competing theories.
	ETV	Reflect on decisions and
	DAG	consequences during the course of
	RAS	action
	FOG	Express themselves verbally and
	EOC	in their writing with efficacy and
		self-confidence.

## Appendix A: Coding Rubric with its Reflectivity Level Descriptors

ADA	Reconstruct action situations as a means for reviewing self as teacher. Examinations of contradictions and systematic attempts to resolve issues.
	Achieve disciplined inquiry, individual autonomy, self- understanding, and self- actualization.



		Scale	ſ	Cronbach's
	Scale Mean	Variance if	Corrected	Alpha if
	if Item	Item	Item-Total	Item
	Deleted	Deleted	Correlation	Deleted
Q1	94,36	121,247	,553	,903
Q2	94,37	121,135	,566	,903
Q3	94,31	120,190	,576	,903
Q4	94,40	120,678	,485	,904
Q5	94,57	117,350	,656	,901
Q6	94,56	119,207	,520	,903
Q7	94,64	117,827	,645	,901
Q8	94,33	124,456	,312	,906
Q9	94,66	127,388	,038	,912
Q10	94,70	123,343	,253	,908
Q11	94,13	121,012	,580	,903
Q12	94,17	117,941	,705	,900
Q13	94,14	124,559	,282	,907
Q14	94,30	122,503	,377	,906
Q15	94,20	125,032	,215	,908
Q16	94,50	118,572	,621	,902
Q17	94,43	120,480	,447	,905
Q18	93,97	125,535	,188	,908
Q19	94,49	116,804	,673	,900
Q20	94,41	116,217	,688	,900
Q21	94,21	119,098	,645	,901
Q22	94,33	122,021	,464	,904
Q23	94,27	119,824	,597	,902
Q24	94,46	118,223	,669	,901
Q25	94,59	120,681	,396	,906
Q26	94,40	119,519	,545	,903
Q27	94,29	120,207	,498	,904
Q28	94,54	120,426	,482	,904
Q29	95,56	118,453	,470	,904
Q30	95,01	120,507	,312	,909

Appendix B: Item-Total Statistics and Reliability analysis

Cronbach's	N of
Alpha	Items
,907	30

## Appendix C: Frequency and Percentage of Responses on Each Statement

When confronted with a problem

Situation

Item Number	seldom		situational		on a regular basis			nost vays
	f	%	f	%	f	%	f	
1.	0,0	0,0	4,0	5,7	38,0	54,3	28,0	40,0
2.	0,0	0,0	4,0	5,7	39,0	55,7	27,0	38,6
3.	0,0	0,0	6,0	8,6	31,0	44,3	33,0	47,1
4.	1,0	1,4	7,0	10,0	32,0	45,7	30,0	42,9
5.	2,0	2,9	10,0	14,3	35,0	50,0	23,0	32,9
6.	1,0	1,4	14,0	20,0	29,0	41,4	26,0	37,1
7.	0,0	0,0	17,0	24,3	32,0	45,7	21,0	30,0
8.	0,0	0,0	3,0	4,3	38,0	54,3	29,0	41,4
9.	1,0	1,4	18,0	25,7	28,0	40,0	23,0	32,9
10.	2,0	2,9	18,0	25,7	28,0	40,0	22,0	31,4
11.	0,0	0,0	3,0	4,3	24,0	34,3	43,0	61,4
12.	0,0	0,0	7,0	10,0	19,0	27,1	44,0	62,9
13.	0,0	0,0	4,0	5,7	23,0	32,9	43,0	61,4
14.	1,0	1,4	5,0	7,1	29,0	41,4	35,0	50,0
15	1,0	1,4	4,0	5,7	24,0	34,3	41,0	58,6

ocle	lom	situational		on a regular		almost	
							<u>ays</u> %
1	70	1	70	1	70	1	70
0,0	0,0	12,0	17,1	32,0	45,7	26,0	37,1
1,0	1,4	11,0	15,7	26,0	37,1	32,0	45,7
1,0	1,4	5,0	7,1	6,0	8,6	58,0	82,9
1,0	1,4	6,0	8,6	36,0	51,4	26,0	37,1
3,0	4,3	6,0	8,6	29,0	41,4	32,0	45,7
1,0	1,4	3,0	4,3	27,0	38,6	39,0	55,7
0,0	0,0	5,0	7,1	34,0	48,6	31,0	44,3
0,0	8,6	6,0	40,0	28,0	40,0	36,0	48,6
0,0	0,0	10,0	14,3	33,0	47,1	27,0	38,6
3.0	13	12.0	171	20.0	<i>A</i> 1 <i>A</i>	26.0	37 1
5,0	4,3	12,0	17,1	29,0	41,4	20,0	57,1
2,0	2,9	5,0	7,1	33,0	47,1	30,0	42,9
2,0	2,9	4,0	5,7	27,0	38,6	37,0	52,9
1.0	1 /	11.0	157	34.0	186	24.0	3/2
1,0	1,4	11,0	13,7	54,0	40,0	24,0	54,5
20,0	28,6	25,0	35,7	20,0	28,6	5,0	7,1
12,0	17,1	16,0	22,9	24,0	34,3	18,0	25,7
	f 0,0 1,0 1,0 1,0 3,0 1,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 0,0 2,0 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	f%f $0,0$ $0,0$ $12,0$ $1,0$ $1,4$ $11,0$ $1,0$ $1,4$ $5,0$ $1,0$ $1,4$ $5,0$ $1,0$ $1,4$ $6,0$ $3,0$ $4,3$ $6,0$ $1,0$ $1,4$ $3,0$ $0,0$ $0,0$ $5,0$ $0,0$ $0,0$ $5,0$ $0,0$ $0,0$ $10,0$ $3,0$ $4,3$ $12,0$ $2,0$ $2,9$ $5,0$ $2,0$ $2,9$ $5,0$ $1,0$ $1,4$ $11,0$ $20,0$ $28,6$ $25,0$	f%f%0,00,012,017,11,01,411,015,71,01,45,07,11,01,45,07,11,01,46,08,63,04,36,08,61,01,43,04,30,00,05,07,10,08,66,040,00,00,010,014,33,04,312,017,12,02,95,07,12,02,94,05,71,01,411,015,720,028,625,035,7	seldom situational basisf%f%f0,00,012,017,132,01,01,411,015,726,01,01,45,07,16,01,01,45,07,16,01,01,46,08,636,03,04,36,08,629,01,01,43,04,327,00,00,05,07,134,00,08,66,040,028,00,00,010,014,333,03,04,312,017,129,02,02,95,07,133,02,02,94,05,727,01,01,411,015,734,020,028,625,035,720,0	seldomsituationalbasisf%f%f%0,00,012,017,132,045,71,01,411,015,726,037,11,01,45,07,16,08,61,01,45,07,16,08,61,01,46,08,636,051,43,04,36,08,629,041,41,01,43,04,327,038,60,00,05,07,134,048,60,08,66,040,028,040,00,00,010,014,333,047,13,04,312,017,129,041,42,02,95,07,133,047,12,02,94,05,727,038,61,01,411,015,734,048,620,028,625,035,720,028,6	seldomsituationalbasisalwf%f%f%f0,00,012,017,132,045,726,01,01,411,015,726,037,132,01,01,45,07,16,08,658,01,01,45,07,16,08,658,01,01,46,08,636,051,426,03,04,36,08,629,041,432,01,01,43,04,327,038,639,00,00,05,07,134,048,631,00,08,66,040,028,040,036,00,00,010,014,333,047,127,03,04,312,017,129,041,426,02,02,95,07,133,047,130,0

# When preparing, implementing, and assessing a lesson,