Examining the Prospective English Teachers' Pedagogical Content Knowledge: Canakkale Case*

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Abstract

The study aims to investigate the pedagogical content knowledge of the prospective language teachers in the English Language Teaching Department of Canakkale Onsekiz Mart University. The mixed research method, sequential explanatory research design was used to collect and analyze the data. Quantitative data obtained from 127 prospective teachers via the questionnaire were analyzed using descriptive and inferential statistics. The researchers made use of content analysis in order to analyze the qualitative data obtained from document analysis, observation procedures, and interviews of the three participants. Themes and codes were created from the transcriptions of the qualitative data collection instruments to conduct both within-case and cross-case analyses aiming to explain the quantitative results. Results reveal that prospective teachers of English believe they do not have required knowledge of the language they teach though they see themselves competent in other knowledge domains. Though they believed they would use communicative methods to language teaching, they preferred using grammar translation method while presenting the new vocabulary items. What they believed they could do and what they actually did were also different considering their knowledge on planning lessons, knowledge of their learners, and knowledge on assessment. Last but not least, their knowledge domain was shaped not only by the teaching experience they had during the Community Service Practices Course and the private courses they had given, but also by pre-service teacher education. Bearing these results in mind, some implications for teacher education were provided at the end of the study.

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Introduction

Recently, with the advent of technology, the need for international communication has increased to a great extent. Thus, teaching and learning foreign languages have become really important in most countries in the world. There have also been many innovations regarding foreign language education in Turkey. EFL teachers who serve in state schools should have command of a range of skills, competencies, and knowledge to meet the needs of the students. First and foremost, EFL teachers need to have extensive knowledge of the subject matter. That is to say, they should be equipped with a good command of English, have knowledge about language use, and the theoretical background of the field. Even though language mastery is an important qualification, it is not enough for an effective English language teacher. It is essential for a teacher of English to demonstrate pedagogical competence and have a wide range of skills such as lesson planning, materials development, classroom management, instructional organization, presentation of the subject matter, and assessment (Demirel, 1989).

The main components of teaching profession have been defined under three dimensions: general, subject matter (content), and pedagogical knowledge. When the studies carried out about the areas of knowledge that a teacher should have are examined, several categories are proposed by several researchers (Borg, 2003; Elbaz, 1981; Freeman & Johnson, 1998; Golombek, 1998; Meijer et al., 1999; Meijer et al., 2001). However, a new knowledge area called the 'pedagogical content knowledge', which is as significant as the others, has been introduced. Although all the knowledge components are critical in teacher development, the study of *pedagogical content knowledge* (PCK) is relatively new in some disciplines. Being the pioneer of the term, Shulman (1987) proposed that this form of knowledge is crucial for effective teaching as it relates to the capability to represent and formulate content in a particular discipline in ways that are understandable to students. The PCK concerns how teachers relate their subject matter knowledge (what they know about what they teach) to their pedagogical knowledge (what they know about teaching), and how subject matter knowledge is related to the process of pedagogical reasoning (Shulman, 1987). According to Shulman (1987: 8), PCK "represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction". PCK for foreign language teacher education refers to what teachers know about teaching the target language to empower students to communicate in the target language. PCK "is commonly believed to be a transformation of at least two constituent knowledge domains: general pedagogical knowledge and subject matter knowledge" (Gess-Newsome, 1999: 5). A teacher with good PCK teaches a subject matter with appropriate instruction strategies. Namely, they must have the knowledge of the subject matter, knowledge on planning lessons, knowledge of learners, knowledge on teaching methods and techniques, and knowledge on assessment all together. According to Tamir (1988), pedagogical knowledge is comprised of four components, which are students, curriculum, evaluation, and instruction (that includes both teaching and management). Çakır (2008: 15) also provides a comprehensive definition of pedagogical knowledge as acquiring "some skills including the process and practices involved in classroom management, lesson plan, and implementation. It also contains knowledge about teaching methods to be used and strategies for evaluating students' understanding."

According to Freeman and Richards (1996), we need to know more about language teachers in order to understand teaching well. Moreover, we need to understand more about prospective language teachers' perceptions of knowledge about language teaching in order to understand how effective the education they have in the ELT departments is. Although PCK has been explored in a number of studies in disciplines such as mathematics and science (Cochran-Smith & Lytle, 1999; Grossman, 1990), teachers' pedagogical content knowledge in teaching English is still an understudied area. This study attempts to fill the gap by examining the prospective English PCK as understanding their PCK may help the universities to train better English teachers.

The main purpose of this study is to investigate the prospective language teachers' PCK. As pedagogical content knowledge consists of the knowledge of the content, lesson planning, learners, teaching methods and techniques, and assessment, the study aims to determine teacher competencies regarding these issues. Therefore, the study investigates the following research questions:

1. What are the prospective English teachers' perceptions of their own level of pedagogical content knowledge?

2. To what extent do the prospective English teachers make use of their pedagogical content knowledge? In their teaching practices, to what extent do they use their:

    2.1. knowledge of English,

    2.2. knowledge on planning lessons,

    2.3. knowledge of their learners,

    2.4. knowledge on teaching methods and techniques,

    2.5. knowledge on assessment?

Methodology

Research studies on EFL teachers' PCK generally examined the sources of teacher knowledge (Akyel, 1997; Ariogul, 2006; Banegas, 2009; Johnston and Goettsch, 2000; Koçoğlu, 2009; Mok, 1994; Nespor, 1987; Richards, 1991; Sundusiyah, 2009; Zhang, 2008), and the relationship between the teacher knowledge and classroom teaching practices (Popko, 2005; Saraç-Süzer, 2007a; Saraç-Süzer, 2007b). They usually investigated the development of teacher knowledge by analyzing the teaching practices. In the opinion of Borg (2003), without the analysis of teachers' teaching practices, a researcher limits the implications of the findings of his/her study in teacher knowledge research. In such studies, generally qualitative data collection methods are used. Even if the researchers make use of quantitative data collection methods, they support and explain its results with the help of the qualitative ones. Pajares (1992; cited in Zhang, 2008: 25) explains why qualitative data collection techniques are used so frequently by arguing that "beliefs cannot be directly observed or measured, but must be inferred from what people say, intend, and do".

In order to seek answers to the research questions, 'the mixed research method' was used in the study in which quantitative and qualitative research techniques, methods, and approaches are combined (Johnson & Onwuegbuzie, 2004). In this mixed research method, the researchers conducted a questionnaire as the primary data collection tool and the data collection process was supported with interviews, classroom observations and document analysis (lesson plans) which are qualitative data collection tools. The mixed research method is used to get benefit from the strengths and to minimize the weaknesses of both quantitative and qualitative research in a single study (Johnson & Onwuegbuzie, 2004, McMillan & Schumacher, 1993). As a research design, the researchers use a 'sequential explanatory design' which consists of both quantitative and qualitative analysis of the data. The answer to the first research question is sought using a questionnaire which is part of the quantitative phase of the study. According to the results of the first phase (quantitative), interview questions were developed and the second research question was answered using different qualitative data collection techniques in the second phase (qualitative) of the study which helped explain, or elaborate on the quantitative results obtained in the first phase (Ivankova, Creswell, and Stick, 2006).

Figure 1: Visual Model for the Mixed Research Method, Sequential Explanatory Research Design Procedures (adapted from Ivankova et al., 2006: 16)

Phase	Procedure	Product
QUANTITATIVE **Data Collection**	**Questionnaire applied to 127 prospective teachers of English**	**Numeric data**
QUANTITATIVE **Data** **Analysis**	**Reliability analysis** **Descriptive statistics** **Inferential statistics (Mann-Whitney U Test)** **SPSS quan. software v.17**	**Cronbach's Alpha** **Frequencies, mean values** **Value of U**
Connecting Quantitative and Qualitative **Phases**	**Purposefully selecting three participants based on maximal variation principle** **Developing interview questions and observation procedure**	**Participants (n=3)** **Interview guide and observation procedure**
Qualitative **Data** **Collection**	**Documents (lesson plans)** **Observation** **Individual face-to-face interviews with 3 participants**	**Text data (interview transcripts, documents)** **Audio-visual data (video records)**
Qualitative **Data** **Analysis**	**Coding and thematic analysis** **Within-case and cross-case theme development** **Cross-thematic analysis**	**Codes and themes** **Similar and different themes and categories**
Integration of the Quantitative and Qualitative Results	**Interpretation and explanation of the quantitative and qualitative results**	**Discussion** **Conclusion** **Implications**

As it can clearly be seen in the figure above, the study began with the collection and analysis of quantitative data. Then, the researchers planned the subsequent qualitative phase by developing the interview questions and the observation protocol with the help of the quantitative findings. The quantitative findings also provided criteria for identifying the three prospective teachers selected for the second, qualitative phase. Later, qualitative data were collected by means of document analysis, observation, and interviews. The analysis of the qualitative findings was used to explain and interpret findings of the quantitative phase (Creswell et al., 2003). The results from the qualitative phase extended and helped explain the initial quantitative findings. The quantitative and qualitative results were integrated in the discussion and implications part (Tashakkori & Teddlie, 2003).

Limitations of the Study

The selected case for the study was the prospective English teachers at the English Language Teaching Department, at Çanakkale Onsekiz Mart University (COMU), Turkey. Only one case was chosen while collecting and analyzing the data. Therefore, the study findings were limited to the selected case. Another limitation of the study was the self-reported data. Self-reported data is limited as it rarely can be independently verified. Finally, the participants' teaching experience is limited to

the one they got either at the Community Service Practices Course they took or at the private courses they gave.

Setting and Participants

As Merriam (1998: 41) states, case studies give a chance of examining complex social units consisting of multiple variables in understanding the relevant phenomena. As examining the prospective English teachers' PCK is a complex phenomenon, case study was chosen as a research method. In this study, the participants were chosen following Maximum Variation sampling among the ones who enrolled in the "Teaching Practice" course. As the quantitative results do not indicate statistically significant difference between the genders, the researchers did not consider this variable (gender) while selecting the participants of the qualitative phase. He, thus, selected **Teacher 1 (T1)**, who had teaching experience and was more successful (whose GPA was above 3,00), and **Teacher 2 (T2)**, who was more successful, but with no teaching experience, and **Teacher 3 (T3)**, who did not have any teaching experience and was less successful (whose GPA was below 3,00).

Table 1 Participants Selected for the Qualitative Phase of the Study: Maximum Variation Sampling

Gender	Female	Male	Male
Teaching Experience	YES	NO	NO
GPA	3,01	3,10	2,82

All three prospective teachers agreed to participate in the qualitative phase of the study. While selecting these participants, the researchers aimed to explain the quantitative results of the study in more detail. In order to explain the significant differences between the experienced and inexperienced prospective teachers, the researchers compared and contrasted T1 and T2's teaching practices as they both had GPA above 3.00. He analyzed T2 and T3's teaching practices to see the differences due to the participants' GPA as they were both inexperienced. Finally, to find out the effect of being both experienced and more successful student, the researchers analyzed the teaching practice of T1, who was both experienced and more successful, and that of T3, who was both inexperienced and less successful.

Data Collection and Analysis

The first part of the study was conducted to all prospective English teachers at COMU. A questionnaire was administered to find out about their perceptions of their own competencies. In the second part of the study, in which document analysis, observation and interviews were used, three participants contributed to the study when they were having their "Teaching Practice" courses at COMU. Before conducting the main study, the researchers analyzed the internal consistency of the items of the questionnaire. Table 2 presents the internal consistency reliability of the items. 48 items in the the questionnaire are shown to have a high degree of internal consistency with the value .95. This value is acceptable according to Büyüköztürk (2006) who recommends levels of .70 or greater for scales like these.

Table 2 Internal Consistency Reliability (Cronbach Alpha Coefficient)

		Valid	Excluded	Total
Items	.95	104	8	112

The quantitative data obtained from the questionnaire were analyzed by using descriptive and inferential statistics. Prospective English teachers' perceptions of their own level of teaching competency in terms of their pedagogical content knowledge were analyzed through presenting the means, percentages and frequencies obtained for each item through the SPSS program. The highest and lowest mean values and the frequencies of the answers given to the items of the questionnaire were discussed.

The qualitative data obtained from three prospective teachers of English were analyzed in order to explain the initial quantitative findings. While analyzing the qualitative data, both within-case and cross-case analyses (Merriam, 1998) were conducted. This enabled the researchers to group common responses from different perspectives and focus on the parallelism and differences between the participants (Patton, 1990; cited in Şallı-Çopur, 2008: 73). The researchers followed the set of analytic activities proposed by Lune and Berg (2017: 184) while analyzing the data collected through interviews, observations and document analysis. Firstly, data is collected and made into text. Then, codes are analytically developed and identified in the data. Later, codes are transformed into categorical themes. Data collection materials are sorted by these categories, identifying similar phrases, patterns, and relationships. Identified patterns are considered in light of previous research, and a small set of generalizations is established. Finally, researchers wrote a preliminary analysis for each prospective teacher, which helped them in their case and cross-case analysis.

Findings and Discussion

Comparative analysis of the quantitative and qualitative results is discussed and "a general profile" (Baxter and Lederman, 1999: 154) of the prospective English teachers' pedagogical content knowledge at Çanakkale Onsekiz Mart University is inferred.

RQ1. What are the prospective English teachers' perceptions of their own level of pedagogical content knowledge?

To find the answer to this research question, a questionnaire was conducted. The overall mean score of all the items in the questionnaire was found to be 4.09, which shows the prospective teachers agreed that they have the required competencies in general. They believe that they have good command of PCK. When the items are analyzed one by one, none of the items' mean values points a degree of disagreement (below 2.5). To find out whether there were any differences in what they believed they could do and what they actually did, the second research question emerged.

RQ2. To what extent do the prospective English teachers make use of their pedagogical content knowledge in their teaching practices?

Analyzing the participants' different domains of knowledge through descriptive statistics, the researchers found out that prospective teachers agreed they have the required competencies in general. However, quantitative data analysis results indicate that their knowledge of English is the only knowledge domain the mean value of which is below 4.00.

RQ2.1 Prospective teachers' knowledge of English

Though the prospective teachers of English see themselves competent in other knowledge domains, they believe that they do not have required knowledge of the language they teach. The results show similarities with those of Şahin's (2006). In his study, participants regarded themselves as inadequate in the knowledge of a language.

Table 3 Prospective Teachers' Perceptions of their Knowledge of English

Items	N	Mean	SD
1. I can apply my knowledge of phonology (the sound system) to help students develop oral, reading and writing skills in English.	127	4,1102	,68113
2. I can apply my knowledge of morphology (the structure of words) to assist students' development of oral and literacy skills in English.	127	4,0866	,69034
3. I can apply my knowledge of syntax (phrase and sentence structure) to assist students in developing written and spoken English.	127	4,1024	,76464
4. I can apply my understanding of semantics (word/sentence meaning) to assist students in using a wide range of vocabulary in English.	127	4,2992	,68214
5. I can apply my knowledge of pragmatics (the effect of context on language) to help students communicate effectively.	126	4,1984	,72685
6. I have a good command of English.	127	4,0315	,73395
7. I can use the English language to communicate clearly and effectively while speaking.	127	3,9134	,79705
8. It is easy for me to understand conferences, radio and television talks in English.	127	3,8976	,79517
9. I can read and understand popular novels and story books in English with no use or only little use of a dictionary.	127	3,8740	,81642
10. I can write all types of essays, letters, etc. to communicate without having any difficulties.	126	3,4762	,90963
11. I'm good at pronouncing the English words, stress and intonation patterns correctly.	127	3,6614	,94466
12. I have a wide knowledge of vocabulary.	127	3,6299	,79486
13. I know the English grammar very well.	127	4,1811	,76030
Total Mean of the items above: 3.9586			

Being both experienced and more successful, T1 believes that subject matter knowledge of the teachers is more important than their pedagogical knowledge. She expresses that "teachers cannot overcome the unexpected problems and it is impossible for them to create new opportunities for the students unless they have good command of English". As she attached more importance to the knowledge of English, her knowledge of English was the best when compared with other participants of the study. Unlike T1, T2 considered pedagogical knowledge to be more important than the subject matter knowledge and he made more grammatical mistakes than T1 did. To teach effectively, prospective teachers should not underestimate the knowledge of English and pay the attention to it with all its grammar, pronunciation, and vocabulary. Not being competent in subject matter knowledge prevents being a good teacher in the classroom (Guyton & Farokhi, 1987; Minor, Onwuegbuzie & Witcher, 2000).

Another finding of quantitative data analysis reveals that that the prospective teachers agree they can apply their understanding of semantics (word/sentence meaning) to assist their students in using a wide range of vocabulary in English ($\overline{X}_{item\ 4}$= 4,30). Observing the prospective teachers' teaching practices, the researchers realized that two of the prospective teachers taught the new words by showing their pictures and providing sample sentences of these words. However, one of them, having neither any teaching experience nor a GPA above 3.00, just showed the pictures and translated the vocabulary items into Turkish, and made use of students' mother tongue to teach the words. He did not use his knowledge of semantics while teaching vocabulary to learners. According to Johnston and Goettsch's (2000) study, experienced teachers put more emphasis on using examples during explanations. In the present study, not only experienced but also more successful students made use of examples while clarifying the meanings of the words taught. From these remarks, it can be concluded that knowledge of semantics is developed not only by teaching experience, but also by pre-service teacher education. Another important finding of the quantitative data analysis is that the prospective teachers having a GPA above 3.00 can apply their knowledge of phonology (the sound system) better than the less successful students can.

Table 4 Mann-Whitney U Test Presenting the Difference in Item 1 in Terms of Participants' GPA

Item 1	GPA	N	Mean Rank	Sum of Ranks	U	p
I can apply my knowledge of phonology (the sound system) to help students develop oral, reading and writing skills in English.	3.00 and Above	22	76,41	1681,00	822.000	.047
	Between 2.00 and 2.99	105	61,40	6447,00		

Qualitative data analysis results also verify this finding as T1 and T2 made less pronunciation mistakes than T3, though T3 made very little use of the target language.

RQ2.2 Prospective teachers' knowledge on planning lessons

Among the other knowledge domains, prospective teachers' knowledge on planning lessons has the highest total mean value. They believe they can prepare effective lesson plans.

Table 5 Prospective Teachers' Perceptions of their Knowledge on Planning Lessons

14. I can plan my lessons considering my students' language levels, learning styles, interests and needs.	127	4,5197	,64057
15. I can write aims and behavioral objectives of the lesson clearly.	127	4,1732	,76733
16. I can prepare lesson plans that will help me reach my aims.	127	4,3701	,68780
17. I can decide on the ways of how to make students ready for the lesson in the warm-up session.	127	4,4252	,69602
18. I can relate the lesson with the previous and following lessons.	127	4,4252	,66092
19. I can write clear instructions for different parts of the lesson plan.	127	4,5512	,66319
20. I can make use of various activities.	126	4,5476	,62747
Total Mean of the items above: 4,4303			

When the lesson plans of the participant prospective teachers were analyzed, it was found out that they had necessary theoretical knowledge to plan their lessons in an appropriate way. However, they all had either few or some problems in implementing the lesson plan while they were teaching vocabulary to the students. T1 prepared and followed her lesson plan better than the other participants did. Prospective teachers of COMU strongly agree that they can write clear instructions for different parts of the lesson plan ($\overline{X}_{\text{item 19}}$= 4,55). When their lesson plan assessment forms were analyzed, it was found out that their instructions for the activities were clear. They had some problems while they were doing what they actually planned though. All three participants of the qualitative study had problems regarding time allotment. In an earlier study, Kwo (1996) specified two major concerns of prospective teachers. They were pacing in relation to time constraints and unexpected learning difficulties. Both concerns were also observed in this study. Student teachers' predicted time allotted to each activity did not match with the one they actually used in their teaching practice.

Interestingly, only one out of 127 participants did not agree that he/she can decide on the ways of how to make students ready for the lesson and plan his/her lessons considering his/her students' language levels, learning styles, interests and needs. Observation results indicated that T1 and T2 made use of video and storytelling successively. However, T3 preferred to ask questions about the pictures in students' books, which caused students get uninterested. One out of three participants, both less successful and in experienced, could not achieve to keep students' interests alive and consider his students' language levels, learning styles, interests and needs. Moreover, nearly all of the prospective teachers believe that they can make use of various activities while planning their lessons. Their

answers to the questionnaire shows only one out of 127 participants did not agree that he/she can make use of various activities in his/her lesson plan. Observation results verify this finding. Either worked effectively or not, T1, T2 and T3 tried to make use of various activities while teaching the new words.

RQ2.3 Prospective teachers' knowledge of learners

With the highest mean value among the items of the questionnaire, item 21 shows that prospective teachers can use appropriate sources and materials ($\overline{X}$ item 21= 4,57) with their knowledge of learners and their learners' different characteristics ($\overline{X}$ total mean = 4,27).

Table 6 Prospective Teachers' Perceptions of their Knowledge of Learners

21. I can use appropriate sources and materials for my students.	127	4,5748	,63645
22. I can forecast possible questions to be asked and provide their possible answers.	127	3,9921	,71820
23. I can explain the terms and concepts my students have difficulty in understanding.	127	4,2205	,71173
24. I can explain what should be done to clarify the terms and concepts my students have difficulty in understanding.	126	4,1905	,67781
25. I can make use of the target language considering my students' levels.	127	4,3465	,72788
26. I can motivate my students to learn.	126	4,4841	,74548
27. I can keep their motivation and interest alive.	127	4,3543	,77180
28. I can deal with almost any learning problems of the students.	127	3,7953	,89388
29. I have an understanding of how students develop and learn.	126	4,1746	,69374
30. I'm aware of the learning styles (visual, verbal, aural, logical, etc.) of my students.	126	4,4762	,75593
31. I know the learning strategies (using background knowledge, making predictions, summarizing, cooperating, etc.) of my students.	127	4,3543	,77180
Total Mean of the items above: 4,2693			

Having GPA above 3.00, T1 and T2 adapted the reading comprehension questions and the activities given in students' book so that they would be appropriate for their students' interests, needs, and levels. However, T3 did not change any of the questions as he believed there was no need to do so. In adapting materials considering students' needs and levels, participants' GPA played more important role than their teaching experiences. The least successful prospective teacher tended to teach vocabulary without paying sufficient attention to students' English proficiency, needs, and backgrounds.

In the quantitative phase of the study, it was also found out that prospective teachers were not that much sure about dealing with almost any learning problems of their students ($\overline{X}$ item 28= 3,79), and forecasting possible questions to be asked and providing their possible answers($\overline{X}$ item 22= 3,99). In the qualitative phase of the study, the results were similar. Though all the participants provided some anticipated problems and their solutions, they experienced more problems than they had anticipated. "To know how to speak about teaching is not the same as knowing how to actually teach" (Strauss, 1993: 289). In other words, what they believed they could do and what they actually did were different. Unexpected learning difficulties what Kwo (1996) specified as one of the major concerns of the student teachers were also observed in their teaching practices while they were dealing with the problems. Even though all three prospective teachers had problems in their teaching practice, observers reached to a consensus that T1, who was experienced, was the best at dealing with both anticipated and unexpected problems.

RQ2.4 Prospective teachers' knowledge on teaching methods and techniques

According to the quantitative data analysis results, the prospective teachers believe they are knowledgeable about the methods and techniques to be used in their teaching practice. The results also show that the prospective teachers can make use of an eclectic method or communicative approach better than they do traditional teaching methods.

Table 7 Prospective Teachers' Perceptions of their Knowledge on Teaching Methods and Techniques

32. I can make use of appropriate methods and techniques in the teaching process.		122	4,2213	,68650
	33. reading skills.	127	4,3228	,77544
	34. writing skills.	127	4,0394	,85821
	35. listening skills.	127	4,1496	,76717
I can make use of appropriate methods and techniques to improve students'	36. speaking skills.	127	4,0709	,77849
	37. vocabulary knowledge.	127	4,5354	,71041
	38. knowledge of grammar.	127	4,5197	,74376
	39. pronunciation.	126	4,0159	,86703
40. I can make use of traditional teaching methods (Grammar Translation, Direct Method, etc.).		127	3,6378	1,10316
41. I can make use of communicative approach in English language teaching to improve my students' communication skills.		127	4,2756	,67468
42. I can make use of an eclectic method (combining the techniques of many other methods and approaches).		127	4,3465	,75989
Total Mean of the items above: 4,1941				

Observation and interview results reveal that this is not the case for less successful students. T1 and T2 achieved to use various appropriate methods and techniques to teach vocabulary. However, T3, whose GPA is below 3.00, used grammar translation method in general. The students with a GPA above 3.00 are more successful in choosing the appropriate method and technique while teaching vocabulary. The observation results of T1 and T2's teaching practices make it clear that more successful prospective teachers tend to combine the techniques of different methods and approaches better than the unsuccessful one does. As in adapting materials considering students' needs and levels, participants' GPA again played more important role than their teaching experiences or their genders in choosing appropriate methods and techniques to be used. This verifies the positive impact of the courses taken in the ELT departments on the prospective teachers' knowledge base discussed in the literature (Atay, Kaşlıoğlu & Kurt, 2010; Banegas, 2009; Koçoğlu, 2009).

Except for the two out of 127 participants, prospective teachers believe that they can make use of communicative approach or an eclectic method. In contrast, 53 participants (41,7 percent) either disagree with or feel neutral about the fact that they can make use of traditional teaching methods such as grammar translation and direct method. However, the observation results and interview transcripts revealed that all three prospective teachers preferred grammar translation and direct method while presenting the new words while they were supporting their presentation with some eclectic and communicative activities. Once more, Strauss's (1993) argument is verified as their perceptions of what they could do were different from their actual teaching practices.

RQ2.5 Prospective teachers' knowledge on assessment

According to Item 48, having the highest mean value related to their knowledge on assessment, prospective teachers believe they can reflect the results of the classroom assessment process to their future practices. Also, Item 47 with the second highest mean value suggests they can give appropriate feedback.

Table 8 Prospective Teachers' Perceptions of their Knowledge on Assessment

43. I can determine the aims of assessment practices.	127	3,9843	,77648
44. I'm well informed about the uses of a wide variety of assessment strategies.	127	3,7244	,90569
45. I can choose the methods of assessment which is appropriate for my students.	126	4,0000	,83905
46. I can integrate all language skills while assessing the students' success.	127	4,0787	,83196
47. I can give appropriate feedback according to the results of the measurement process.	127	4,2520	,70112
48. I can reflect the results of the classroom assessment process to my future practices.	127	4,3386	,65732
Total Mean of the items above: 4,0630			

Their answers to the interview questions verify these findings. All of them believed that they would change the activities in their lesson plans and use different test techniques to assess students' comprehension if they had a second chance to teach the same vocabulary. Therefore, it can be concluded that they tend to reflect the results of the assessment process to their future practices. Another result that can also be drawn from the quantitative phase of the study is that participants do not perceive themselves as being knowledgeable about the uses of wide variety of assessment strategies (Item 44). It was also observed that prospective teachers used a very limited number of techniques to assess students' comprehension although there were many traditional and alternative test techniques to be used. This may mean that they are not really knowledgeable about various test techniques to be used in their teaching practices.

The quantitative data analysis results regarding the teaching experience of the participants reveal that experienced prospective teachers tend to use multiple-choice and matching questions more frequently than the inexperienced ones do.

Table 9 Mann-Whitney U Test Presenting the Difference in the Use of Test Techniques in Terms of Participants' Teaching Experience

Multiple-choice	NO	53	56,15	2976,00	1545,000	.034
	YES	74	69,62	5152,00		
Matching	NO	53	52,72	2794,00	1363,000	.002
	YES	74	72,08	5334,00		

Köksal and Cesur (2012: 48) also found in their study that the more experienced the instructors are, the more efficient they find the multiple-choice questions prepared by the test constructors working for the testing office. In their study, instructors mostly preferred to use multiple-choice and matching. Similarly, T1 assessed her students' comprehension using a matching activity and T2 expressed that he would have assessed his students' success through multiple-choice questions

and matching activities if he had had second chance to teach the same topic. As the prospective teachers become more experienced, they tend to use multiple-choice questions and matching activities.

All in all, when their pedagogical content knowledge is investigated, prospective teachers' GPA plays the most important role explaining the differences among them. Some other differences can also be explained considering whether they have any teaching experience or not.

Conclusion and Implications

There was a mismatch between what the teacher candidates knew theoretically and what they did in their actual teaching practice. A well-structured ELT program will narrow the gap between the teaching practices and theoretical pedagogy of language teacher preparation courses. Thus, "it is the responsibility of teacher education programs to offer ways for teachers to see links between theory and practice" (Bigelow & Ranney, 2005: 199). When teachers manage to combine the theory and practice and develop their pedagogical content knowledge, "knowledge gained from both will benefit both" (Bigelow & Ranney, 2005: 199). Similarly, as Popko (2005) recommends, teaching about English in grammar and linguistic courses with separate methodology courses may not be the best way to approach English language teacher preparation. Knowledge of English itself can be helpful; however, no knowledge is helpful without application. Therefore, the ELT programs should be revised. Courses that are designed to develop teacher candidates' subject matter knowledge such as 'Contextual Grammar' and 'Vocabulary Knowledge' should also ensure that they have protocols for applying certain aspects of knowledge about language to their own teaching. For example, courses named 'Pedagogical Grammar' or 'Pedagogical Vocabulary', in which the focus would be on methods of teaching grammar and vocabulary, can be integrated in the ELT program. In such courses, the teacher candidates can be taught different grammatical issues and the ways how they can teach such issues to their learners. As Bartels (2009: 130) suggests, the courses they took at the ELT departments "need to stop focusing on academic practices, such as reading studies and discussing theories". Instead, these courses should provide teacher candidates with learning experiences in which (1) they use or develop their knowledge about language to 'engage in teaching-like tasks' and (2) they learn to design and carry out practice activities which help them acquire knowledge about language.

The present study verifies the fact that subject matter and pedagogical competencies have a strong connection with teachers' performance and in-class teaching practice. T1, one of the participants of this study, had a good command of English and her subject matter knowledge was much better than that of the other participants. This in turn influenced her teaching practice in a positive way. Believing that subject matter knowledge is more important than pedagogical knowledge, T1 made fewer mistakes than T2 did, who attached more importance to pedagogical knowledge. Moreover, contrary to T1, T3 had problems regarding his subject matter knowledge. Thus, he had some problems in his teaching practice as well. Therefore, EFL teacher education programs should raise their student teachers' awareness on subject matter (content) knowledge.

EFL teacher education programs need to provide further opportunities for EFL teacher candidates to develop their content knowledge: grammar, vocabulary, pronunciation, and so on. To be able to explain the concepts in their classrooms effectively, teachers need to have willingness and confidence to grapple with the concepts at deep level (Hislam & Cajkler, 2005: 311). Grammatical knowledge at a deep level requires intensive teaching. Moreover, in the opinion of Pemberton (2003), there are three main ways of learning vocabulary: memorizing, using and recycling. He suggests that in order to avoid forgetting what one has learned, he/she should learn words repeatedly, with increasing intervals between learning sessions. As it can be understood from their statements, continuous and intensive teaching of both vocabulary and grammar should be provided to the teacher candidates in the ELT departments. Rather than the courses taught only in their first years of education such as 'Contextual Grammar', 'Vocabulary Knowledge', and 'Listening and Phonetics', future teachers of English should be provided more courses which will help their knowledge of grammar, vocabulary and pronunciation develop in time till they graduate. Therefore, courses taught at the ELT

program should be revised so that the prospective teachers can develop their subject matter knowledge not only in their first years, but also in the other three years of their education.

Understanding teacher knowledge requires understanding its sources as these sources shape teachers' conceptions of teaching and learning, and they affect the teachers' development of knowledge (Tsui, 2003). Teacher knowledge is generally accepted to be constructed from four possible sources: teacher education, disciplinary background, apprenticeship of observation, and classroom teaching experience (Grossman, 1990; Richards, 1998; Tsui, 2003). Bearing these sources in mind, disciplinary background and teacher education is provided to the prospective teachers of English in the ELT department of COMU by means of the courses they take during their four-year-education. However, they only have apprenticeship of observation in the fall term, and classroom teaching in the spring term of their last year. Future teachers of English can be given the opportunities to assist the instructors working at universities. Language teacher education program can organize new projects with the help of which ELT students can observe the instructors who teach English at different levels to the preparatory students of the School of Foreign Languages as "observation is a powerful source of insight and discovery and can help the prospective teachers develop new strategies for teaching" (Crandall, 1998; cited in Zhang, 2008: 235).

In the four-year-program, ELT students should not only be provided with apprenticeship of observation but also be given the chance to teach English to the preparatory students which will develop their classroom teaching experience which is generally considered to be the most important source of knowledge about teaching (Grossman, 1990; Tsui, 2003). Experience is a continuous lifelong phenomenon which "means that all experience shapes or shades in some way further experience" (McCaughtry, 2005: 391). Teacher education program should organize and support new relationships between the new and experienced teachers (Freeman, 2002). Therefore, prospective teachers' teaching practices can be enhanced by providing them with new opportunities to have more teaching experience. To further illustrate, the students of ELT departments can be 'assistant teachers' of the instructors working at universities accompanying them one or two hours a week in their courses at the preparatory classes of the School of Foreign Languages. This will also enable the pre-service English language teachers to carry out more practicum hours than they do currently. Trying to teach an hour or two in a week to a student learning English, each prospective teacher will benefit from his/her tutorial practice and find the chance of exploring his/her own weaknesses and strengths regarding their PCK, which will also help them be more experienced English language teachers.

"Reflection in response to their own classrooms helps teachers contextualize their personal practical knowledge, thus making meaning of this knowledge" (Golombek, 1998: 461). Therefore, language teacher education programs should foster reflection that contextualizes teacher knowledge. Prospective teachers should be taught to conduct action research effectively. By conducting action research, they can directly examine what they know about the language, the curriculum, the students, the instructional strategies, and the ways of assessing students. This will in turn help them realize what they did in the past, are doing now and will do to teach more effectively in the future considering their own teaching practices. As Ariogul also (2006: 157) suggests, self-reflection and collaboration opportunities need to be created in pre-service training. With the help of the questions asked during the interviews, they shared their experiences of teaching. This perhaps let them the chance to talk about and understand their knowledge for the first time. Realizing what they know and what they further need to know may help them develop their knowledge base.

EFL teacher education programs ought to find ways to raise teacher candidates' awareness that knowledge of learners plays a significant role in effective EFL teaching as the participants seem to have difficulties in anticipating the problems they would face. According to the results obtained from the quantitative data, inexperienced prospective teachers thought that they would anticipate students' problems effectively and solve these problems during their classroom teaching practices. After observing their actual teaching practices, qualitative data results revealed that experienced prospective teachers were much better in anticipating and solving the problems than the inexperienced teachers were. Prospective teachers were not aware of their actual capacity to deal with the problems in their

classes. Thus, teacher education programs should provide the future teachers of English with opportunities to raise their awareness of possible problems they will face when they become real teachers, to examine the causes and the negative effects of the problems, and to consider and practice effective strategies to deal with the problems. To achieve these, a course named 'Dealing with Problematic Classes' can be integrated to the program. Instruction of this course should be based on problem-based learning approach in which "students receive a problem and work in teams to try to identify the nature of the problem and the resources they will need to solve the problem" (Major & Palmer, 2006: 623). This course can teach prospective teachers what to do if the students are all at different levels, if they keep using their own language, if they are uncooperative, if they do not want to talk (Harmer, 1998), if they do not understand the instructions, and if they have some misconceptions regarding grammar, vocabulary, pronunciation and other skill areas.

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