



EFL Teachers' Pedagogical Content Knowledge (PCK) and Teaching Practice: Metekel Zone Junior Schools in Focus, Ethiopia

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Abstract

In this explanatory sequential mixed method study, the researcher attempted to investigate the EFL teachers' status of CK, PK, PCK, classroom practice and the relationships among these variables. Comprehensive and purposive sampling techniques were used. Quantitative and qualitative data analyses methods were employed in the study. The least knowledge the teachers owned was CK whereas classroom practice was found to be relatively the highest. They had moderate PK in assessing students' understanding of topics, in drawing up clear classroom rules, creating a friendly atmosphere, and developing a good relationship with students. However, the overall finding revealed that the teachers were not well equipped with PK. They had moderate PCK in designing instructional objectives and context, and in using appropriate examples to explain concepts related to the subject matter whereas their knowledge of students' understandings and misunderstandings was inadequate. They had low knowledge to diagnose the notions that were problematic for students and to think why these concepts became difficult. There was a strong positive correlation between CK and classroom practice. The correlation between CK and PK was fair whereas there was a weak positive correlation between PK and classroom practice. There was not statistically significant relationship between PCK and classroom practice.

Keywords:

CK, PK, PCK, classroom practice, EFL teachers

INTRODUCTION

For many years, what teachers know and how they make use of their knowledge to accomplish teaching has been a topic of interest for educational researchers, teacher educators, and educational policy-makers (Guerriero, 2017). Teacher educators and the researchers have recognized PCK as the main constitute of the knowledge required to effective and successful instruction. Investigating teachers' PCK and classroom practice is vital to detect teachers' knowledge bases and to see their roles at the achievement of academic goals (Hashweh, 2005). The researchers revealed that teachers require deep knowledge of content in order to employ an effective instruction (Hill et al., 2008). CK is a prerequisite for PCK (van Driel et al., 2014). Studies have publicized that teachers with strong CK tend to have more awareness of common students' ideas and relevant instructional strategies to address these ideas (Davis, 2004; van Driel et al., 2002) while weak CK limits teachers' PCK (Kapyla et al., 2009; Rollnick et al., 2008). It deals with the teacher's conceptions of theories as well as understanding of structures of the subject matter to be taught. The lack of teachers' knowledge found the difficulties in teaching-learning processes (Ozden, 2008; Washburn, 2016).

Velez-Rendon (2002) claims that without PK teachers could not communicate their knowledge and skills to students. He further suggests teachers do not merely to have CK but also to be innovative in their teaching strategies and respond promptly to the requirements of different students in different places. The PK requires teachers to explain, clarify, and motivate students of varying abilities through differentiated instruction and improving their own professional preparedness (Arikan et al., 2008; Aydin et al., 2009; Borg, 2006). It is through PK that teachers could effectively utilize the classroom setting to maximize learning outcomes by the students. Research has shown that one of the factors that enables effective teachers is their rich PCK (Loughran et al., 2006), a special blend of CK and PK that is built up through experience. PCK comprises an awareness of students' misconceptions and preconceptions about the subject matter that can make learning difficult or easy. One indispensable constituent of PCK is ensuring that teachers have mastered both the content they teach and the best ways of teaching it (Mirel, 2011). PCK had been recognized as a knowledge base necessary for the effective teaching of subject matters. This view has been expressed in several educational reform documents and has led to several attempts aimed at evaluating teachers' PCK and classroom instructional practice in the context of a professional development program, or establishing formal assessment procedures. Studies (Baumert et al., 2010) found a positive relation between PCK-measured with a test and instructional quality, assessment of teacher-constructed assignments, a student survey on quality of individual learning support, and classroom management strategies. On the contrary, Gess-Newsome et al. (2013) failed to find a correlation between PCK-measured with a test and classroom teaching and measured with observational rubrics.. Research proves that the important roles of teacher education showing students' learning outcomes are greatly affected by the quality of teaching practice (Darling-Hammond, 2017). He revealed that teachers who are better prepared for teaching are more confident and successful with their students than those who receive little or no training. Crocker et al. (2008) conducted a survey to

investigate teachers' attitudes towards their teaching practice and obtained that it was considered to be the most valuable part of the teacher profession.

Now-a-days, there are many studies that show teachers' knowledge has the most significant roles on students' academic achievement (Cochran-Smith & Zeichner; Jensen & Kiley, 2005). EFL teaching and learning implies teaching and learning of English language by non-native teachers where English is not the local language for communication, neither in the community nor in the schools (Harmer, 2007). EFL teaching and learning is more challenging for both teachers and students since they fulfill teaching and learning activities within the boundary of specific educational institution in which EFLT and learning is practiced. Under such circumstances students have no exposure to the target language outside the school setting. Thus, it becomes extremely important to EFL teachers' to be knowledgeable in the context of their specific professional characteristics as English is almost a classroom language in Ethiopian context. In a rapidly changing globe, where knowledge, concepts, technology, and philosophies are speedily altering, education has been exposed to some fundamental changes. The world being a global village is currently shaped by rapid progress of knowledge and skills which lead to an explosion in teaching and learning that requires the language teachers at the level of renewed information, to maintain a continuous and sustained professional development (Hismanoglu & Hismanoglu, 2010). Despite this realization, the concerns have increased over the years in Ethiopia regarding the falling of the standards of education, professionalism, teachers' effectiveness, and students' low achievement in many subjects in general and English language in particular. Research findings revealed that most Ethiopian students' proficiency remains poor and the effectiveness of English language teaching remains questionable despite the efforts made by the government (Berhane, 2019). Thus, there must be a need to know comprehensively the EFL teachers' knowledge bases that impact the development of EFLT. Owing to the significance of these variables to enhance the quality of EFLT, the current study addressed the following research questions:

1. How junior school EFL teachers' status of CK, PK, PCK, and classroom instructional practice could be described?
2. How the relationships between the junior school EFL teachers' CK, PK, and PCK on action and classroom instructional practice are characterized?

METHODS

An explanatory sequential mixed-method design was employed due to the nature of the research problem. It has a quantitative strand, in which numeric data are collected and analyzed, followed by a qualitative strand, in which textual data are collected and analyzed (Ivankova et al., 2006). It is a procedural for collecting, analyzing, and mixing both quantitative and qualitative methods to understand a research problem (Creswell & Plano Clark, 2018; Pardede, 2019). In this design, a researcher first collected and analyzed the numeric data. The textual data were collected and analyzed second in the sequence and these data help to elaborate the quantitative results. The crucial aspect of mixed-methods is that either quantitative or qualitative method alone has strengths or

weaknesses, whereas the combination of the two methods can focus on their relevant strengths. To begin with the quantitative part of data, various sorts of questionnaires were dispatched to the participants. During the qualitative phase, semi-structured interviews were employed as a next step to triangulate the data.

Participants

The study was conducted in Ethiopia, at government junior schools. The participants were those who took subject matter courses, subject matter pedagogy courses, and general pedagogy courses and who were involving in teaching profession by the time the research was being conducted. They were only English major teachers so as to get relevant data and to maintain the trustworthiness of the findings. The total population was found to be 158. Comprehensive sampling technique was employed to gather quantitative data. The total population was considered as the sample size of the study. For the qualitative phase, purposive sampling was employed. The qualitative sample is substantially lower in size than the quantitative sample size (Creswell & Plano Clark, 2018). Thus, 4 EFL teachers were selected based on their consent for semi-structured interviews. Among 158 the total population, 135 participants were obtained. The rest 23 teachers were absent during the researcher went to the schools to gather data. Among 135 participants, 128 participants filled in the questionnaire correctly. Two questionnaires were invalid as the items were circled mechanically. 5 participants did not return the questionnaire to the researcher. There were 122 teachers who attempted to answer all the questions of TKT. 5 teachers answered the test selectively, which were rejected. The rest 8 teachers did not attempt the entire questions. Consequently, 128 teachers' questionnaire, 122 teachers' TKT scores, and 4 teachers' interview data were analyzed and discussed.

Instruments

Questionnaire

The survey questionnaires were prepared to examine the EFL teachers' CK, PK, PCK, classroom practice. Basically, the questionnaire was designed to elicit data about the knowledge gaps of the EFL teachers and to see their classroom practice. Close-ended questions were used dominantly in the study. The instrument contained a total of 60 items that CK, PK, PCK, and classroom practice contained 15 items each. Strongly disagree (1), disagree (2), undecided (3), agree (4), and strongly agree (5) were used to measure the items of CK, PK and PCK whereas to measure the items of classroom practice, never (1), rarely (2), sometimes (3), often (4), and always (5) were employed.

Teaching Knowledge Test (TKT)

Direct measures of teachers' knowledge are more powerful indicator of their knowledge (Monk, 2017). TKT was prepared in two broad categories of knowledge. The first part of the test was about CK (30 items) whereas the second part was about PK (30 items). The test items were adapted from English language competency tests for Ethiopian junior school EFL teachers. A few items were developed from junior school English curriculum by the researcher and the experts from the region education bureau. The test was

employed to see the knowledge gaps of the teachers' content and pedagogy to meet the expectations in handling teaching English.

Semi-Structured Interview

Reasons and beliefs of teachers which the questionnaire could not elicit because of their closed ended nature should be explored in depth with interview (Selinger & Shahomy, 2008). Thus, to complement the data gathered through questionnaire, semi-structured interview was designed to examine the status of the teachers' CK, PK, and PCK and to elicit data about their classroom practice.

Procedures

Before data collection process, the researcher received an official recommendation letter from department head, zone education office, and from his college. The researcher had communication with each woreda education officers through phone. Then, the researcher went to the targeted schools and made familiar himself with the school community before dispatching the questionnaire. For the interviewing, the researcher communicated intensively with the school principals to convince the participants who were selected purposively since their willingness was prioritized. The researcher explained intensively the objectives of the study to the participants. No address data were gathered to assure confidentiality. Additionally, to ensure anonymity, no participants' identity data were collected. After their willingness was assured, the researcher adjusted the favorable room in school compound that was free from any destructors. The interviews were audio recorded with anonymity and later transcribed.

Analysis Methods

The researcher employed SPSS software version 26 to analyze the findings of the quantitative data. Both descriptive and inferential statistics were used to research on the objectives of the study. The data obtained through the questionnaire were subjected to percentage, Mean, SD, correlation, one-way ANOVA, and Post Hoc Test. The percentage was employed to analyze and display TKT scores. Mean and SD were employed to see status of the teachers CK, PK, PCK, and classroom practice. One-way ANOVA was employed to see the significance differences of the mean scores of CK, PK, PCK, and classroom practice. Post Hoc Test was employed to identify which means differences show significant values. Correlation was employed to see the relationships among the participants' CK, PK, PCK, and classroom practice. The interview data were analyzed thematically.

RESULTS

Figure 1 summarizes the teachers' status of CK ($M=2.93$; $SD=.126$), PK ($M=3.00$; $SD=.162$), PCK ($M=3.03$; $SD=.106$), and classroom practice ($M=3.43$; $SD=.114$). The teachers' status of the three knowledge bases was seen quite different. The finding revealed that the teachers' CK was inadequate to manage the subject matter whereas they might have better status of PK, PCK, and classroom practice relative to CK. The result indicated that the teachers might be good at PK in

drawing up clear class rules, creating a friendly atmosphere, and developing good relationships with students, in monitoring classroom routines systematically within the context of the EFL classroom and in using antecedent strategies to prevent inappropriate behavior. Similarly, the result depicted that the teachers might have moderate PCK in designing instructional objectives and context and in practicing instructional representation and strategies. They could articulate how their instruction would address students' learning difficulty or support students' understandings. On the other hand, the teachers' classroom practice was found to be the highest as indicated on Figure 1.

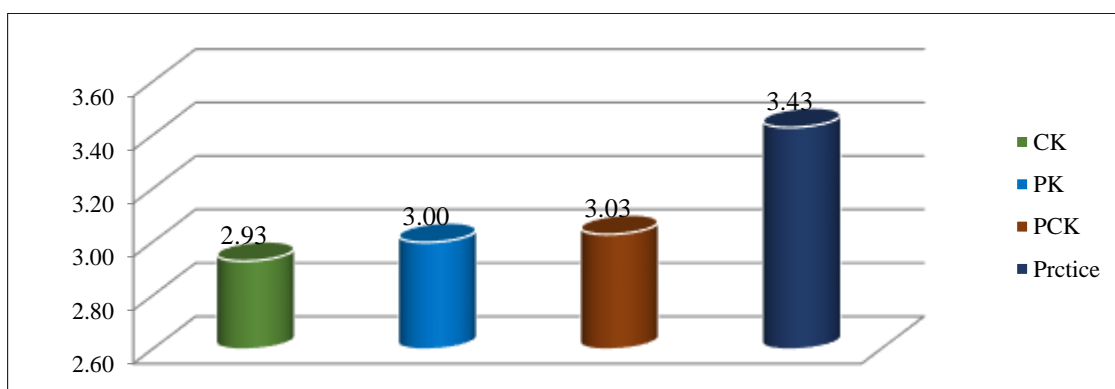


Figure 1. The EFL teachers' CK, PK, PCK, and classroom practice (N=128)

This portrayed that the teachers tried to practice the behaviors in a classroom regardless of their status of knowledge bases. The frequency of their classroom practices was likely to be 'sometimes'. Overall, the results revealed that the participant EFL teachers might not be accountable to their professional career since their status of knowledge bases and classroom practice were insufficient to implement the curriculum successfully and hence to gain the desired goals. Although the mean scores of the CK, PK, PCK, and classroom practice figured out differently, it could not be possible to generalize they differ significantly. Therefore, one-way analysis of variance was employed to determine the significant difference between the variables as indicated in Table 1.

Table 1. A summary table of one-way ANOVA (N=128)

Sources of Variation	Sum of Squares (SS)	Degrees of Freedom(df)	Mean Squares (MS)	F	Sig.
Between Groups	2.279	3	.760	45.85	.000
Within Groups	.928	56	.017	6	
Total	3.207	59			

A one-way between-groups analysis of variance was conducted to explore the impact of EFL teachers' CK, PK, and PCK on their classroom practice. There was a statistically significant difference at $p < .01$ level in the mean scores of the four groups as shown the significant with the value of $F(3, 56) = 45.856, p = .000$. Besides reaching statistical significance, the actual difference in mean scores was quite large.

Table 2. Post-hoc comparison of the mean differences using the Scheffe Test (N=128)

(I) Code	(J) Code	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
CK	PK	-.06733	.04700	.566	-.2028	.0681
	PCK	-.09933	.04700	.227	-.2348	.0361
	Practice	-.49800*	.04700	.000	-.6335	-.3625
PK	CK	.06733	.04700	.566	-.0681	.2028
	PCK	-.03200	.04700	.926	-.1675	.1035
	Practice	-.43067*	.04700	.000	-.5661	-.2952
PCK	CK	.09933	.04700	.227	-.0361	.2348
	PK	.03200	.04700	.926	-.1035	.1675
	Practice	-.39867*	.04700	.000	-.5341	-.2632
Practice	CK	.49800*	.04700	.000	.3625	.6335
	PK	.43067*	.04700	.000	.2952	.5661
	PCK	.39867*	.04700	.000	.2632	.5341

*. The mean difference is significant at the 0.05 level.

Post-hoc comparisons using the Scheffe test indicated that the mean score for CK (M=2.93; SD=0.13), PK (M=3.00; SD=0.16) and PCK=3.03; SD=0.11) were significantly different from classroom practice (M=3.43; SD=0.11) at $p < 0.05$ level. CK, PK, and PCK did not differ significantly from one another.

Table 3. Correlation matrix of the EFL teachers' knowledge bases and classroom practice (N=128)

Indicators	CK	PK	PCK	Practices
CK	-			
PK	.530*	-		
PCK	-.181	-.071	-	
Practice	.739**	.435	.000	-

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

A correlation analysis indicated that moderate correlations exist between the variables. As the results depicted, the variables were generally related to one another with 2 of the 6 correlations statistically significant. There was fairly strong positive correlation between CK and PK, $r(128) = .530, p < .05$, two tailed. This relationship suggests that the two knowledge bases might build upon each another. The 'r' value shows that CK and PK in the sample share 28% of their variation in common. CK correlated with PK, suggesting that knowledge related to creating a classroom community characterized by active participation, student engagement, assessment, and feedback has application to content teaching. CK appears to be more distinct than the other variables because it was the only variable that significantly correlated to classroom practice. There was a strong positive correlation between the two variables, $r(128) = .739, p < .01$, two tailed, with high levels of CK associated with classroom practice. This relationship suggests that the CK and the classroom practice might build upon each another. The 'r' value indicates that the teachers' CK and their classroom practice in the sample share 55% of their variation in common. The teachers with higher CK might exhibit potentially more classroom practice. There was a weak positive

correlation between PK and practice, $r(128) = .435$, $P < 0.05$, two tailed, with a weak level of PK associated with classroom practice. In the contrast, there was not statistically significant relationship between PCK and classroom practice.

EFL Teachers' TKT Scores

The content and the pedagogy test scores were analyzed separately to see the teachers' knowledge gaps at each area. As the evidences indicate on figure 2 below, 26 teachers (6.6%) answered correctly few questions of the content test and their scores were found to be less than 25%. There were 47 teachers (38.5%) whose scores were within the range of 25-49%. This could indicate that entirely 55 teachers (45.1%) have inadequate CK as their test scores were less than 50%. On the other hand, 53 teachers (43%) showed better performance as their scores were laid in the interval of 50-74%. Relatively, there were 14 teachers (11.5%) who have adequate language area knowledge since their test scores were found in the interval of 75-100%. Entirely, 67 teachers (54.9%) answered equal to or greater than 50% of the language area questions correctly whereas 55 teachers (45%) achieved less than 50%.

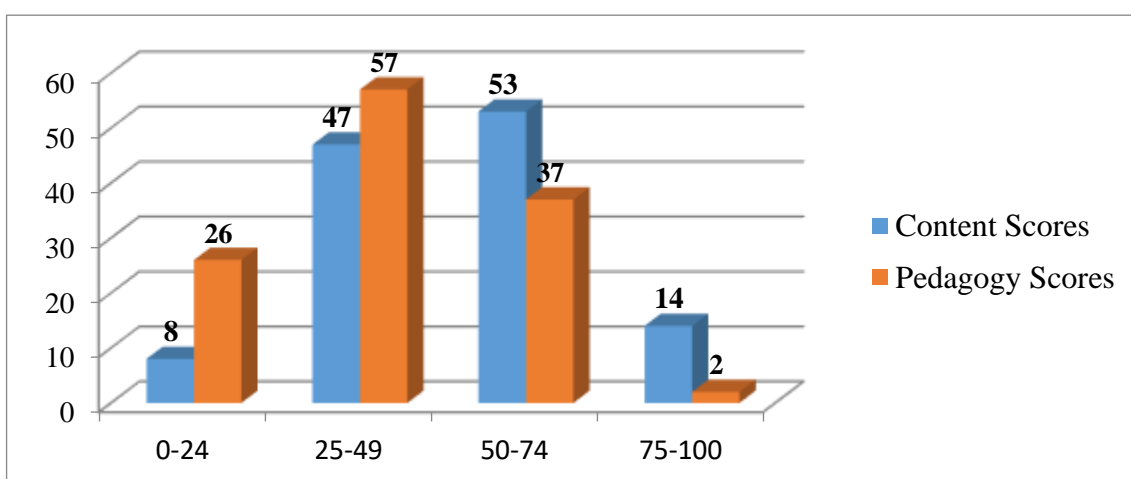


Figure 2 , EFL Teachers' TKT Scores (N=122)

On the other hand, the EFL teachers' pedagogy test scores were definitely less than their content test scores within the four ranges. The pedagogy test scores of 26 teachers were less than 25%, implied that 21% of the teachers might be extremely poor in their PK. There were 57 teachers (46.7%) whose pedagogy test scores were found within the interval of 25-49%. This indicates that considerable teachers might have insufficient PK in EFL teaching. Among 122 participants, 37 (30%) EFL teachers' pedagogy test scores were found between 50-74%. Only 2 teachers' (1.6%) scored greater than 75% on the pedagogy test: one teacher scored 76.7% and the other one scored 80%. This indicated that two teachers might have adequate PK in EFL. A total of 83 teachers (68%) achieved less than 50% on pedagogy test whereas 39 teachers' (32%) scores were equal to or greater than 50% for the same test. Overall, the teachers scored by far higher results at the content area as compared to the pedagogy part. This could indicate that the teachers attained more CK than PK.

Interview Data

The participants were interviewed how much they were academically knowledgeable to understand the curriculum they taught. They were also interviewed about their PK, PCK, and classroom practice. The data were analyzed thematically and some of the participants' speeches were directly quoted as follow:

(T₁) I could not say that I had adequate CK. English textbook was adapted frequently in Ethiopian education curriculum but the short term trainings were not given to introduce the books. The textbooks were completely new for me to implement; I did not understand some of the contents. I had limited knowledge of the textbooks that I used to teach students. I found some tasks in the textbook confused me. I considered the students poor at EFL since no one asked me challenging questions during lesson delivery. So, I did not worry to refer more materials to make myself ready before the class.

(T₂) There were not supportive materials to improve my PK. Besides, there were not trainings given to improve my PK. Three years ago, I took the training about continuous classroom assessment but now-a-day there was not any training given to develop my methods of teaching. Since the book was new, I did not know how to employ it in the classroom. I was not introduced with the book. I used demonstration, presentation, tests, quiz to assess the students. I assessed and confirmed the performances of a few students in classroom instruction. There were ninety students in 7th grade which were impossible to manage, organize, and to check their understandings. Since the seats were immovable, it was very difficult to organize students. However, I let students discuss with others near to them. Sometimes I grouped student into half on their seats to discuss together though it was inconvenient.

(T₃), I tried to merge and use my knowledge of content and pedagogy to teach EFL though I did not have adequate PCK. Since the textbook was new, I did not understand the contents and the methods how to approach and manage it. I set the instructional objectives considering low, medium, and high achievers to accommodate individuals' needs; however, I did not fully employ what I designed in the instructional plan. I realized some students' understandings and misunderstandings of the lesson as there were large numbers of students in a class. I could not use appropriate examples, appropriate strategies, authentic EFL resources, varieties of teaching approaches and styles as the school was poor in resources. There was not a library and pedagogical center in my school.

(T₄) Since I have pedagogy and content knowledge gaps, it was difficult to me to implement classroom practice effectively. The current classroom conditions discouraged my practice. The chairs were too crowded and it was impossible to organize students in pairs or in groups to practice the skills. It was difficult to move freely in a class to assess students while they were practicing on tasks. Thus, I could say no consistence between my PCK and my classroom instructional practice.

DISCUSSIONS

The teachers admitted that they had inadequate CK. They did not know the deep underlying principles and structure of the discipline, and the procedures used to generate knowledge in the EFL. Studies supported the notion that teachers who taught the subjects that they had previously studied in-depth are particularly effective (Olisama et al., 2011 & Odumosu et al., 2018). On the contrary to this scholars' theory, the results of the current study did not showed the effectiveness of the teachers in CK even if they had previously studied the subjects in degree level for four years. A growing body of research shows that students' achievement is more heavily influenced by the teacher quality in terms of CK than by students' prior academic record (Ishola & Udofi, 2017). Ahtee & Johnston (2006) showed that a lack of subject knowledge could lead to teaching difficulties, and teaching difficulties may lead students to develop a negative attitude towards learning a subject. This may in turn lead to underachievement in school subject. Moreover, Gess-Newsom et al. (2017) revealed that teachers' CK appears to be most influential in student achievement. This indicates the students' poor performances at EFL might be resulted from poor CK of the teachers at the current study sites, in Ethiopia. Researchers have also found that insufficient CK among teachers led their students to develop misconceptions, misunderstandings, and misinterpretations regarding the subject matter during instruction (Odumosu et al., 2018).

Shulman (2004) stated that PK involves the teaching principles and strategies that are applied in classroom assessment and management. In line with this, the present study attempted to analyze the EFL teachers' status of PK in connection with language assessment and classroom management. The result indicated that the teachers had moderate PK, especially to assess students' understanding of topics. They had moderate PK in drawing up clear classroom rules, creating a friendly atmosphere, and developing a good relationship with students. However, the overall finding revealed that the teachers were not adequately equipped in PK. If the teachers are able to present their lesson in such a way that learners appreciate and appeal strongly to it, it means the PK of the teachers is sound (Filgona et al., 2020). By being pedagogically knowledgeable, Timothy cited in Tsafe (2013) observed that teachers who provide good students' relationships and apply better classroom conditions could improve the academic achievement of students thereby motivating them to score high marks.

In the teaching and learning process, PCK encompasses teachers' competence in conveying the conceptual approach, relational understanding, and adaptive reasoning of the subject matter (Filgona et al., 2020). The current study found that the teachers had moderate knowledge to design instructional objectives and context whereas their knowledge of students' understandings and misunderstandings was inadequate. This indicated that the teachers could not demonstrated rich knowledge of students' ideas during classroom instruction. However, Richards (2001) found that the effectiveness of teaching relies on teachers' understandings of the context of teaching and the students. The teachers could not attempt to understand what students think and why by providing specific insightful interpretations. This is why Eggen and Kauchak (2001) stressed that where PCK is missing, teachers commonly paraphrase information in learners' textbooks or provide abstract explanations that are not meaningful to the students. In line with this, Ehindero cited in Lucenario et al. (2016) confirmed that teacher's teaching is influenced by the level of the acquired PCK of the subject matter. Based on the finding, the teachers had moderate PCK in using appropriate examples to explain concepts related to the subject matter. This implied that the

teachers did have only some knowledge in providing specific examples of instructional strategies with clear connections to students' ideas. Although they provided examples of instructional strategies commonly used in an EFL class, they could not necessarily articulate how their instruction would address the students' learning difficulty or support students' understanding. Osborne et al. (2003) revealed that why the teachers' pedagogy is unattractive to most of the students, suggesting that, though the teachers may be knowledgeable about their subject matter, they become unsuccessful in establishing a range of varied learning opportunities and communicating their subject effectively. Overall, the teachers have some knowledge of the strategies (not adequate) for illustrating topics and represent content using appropriate strategies using various approaches.

The teachers could have good classroom practice in organizing group work, in giving positive feedback to encourage students, in assessing students' prior knowledge, and in using a variety of assessment strategies. However, the frequency of their classroom practice was likely to be 'sometimes' (not always). Related to this, Gess-Newsom et al. (2017) found that the relationship between teachers' practice and students' achievement was weak; suggesting that teacher classroom practice is not likely a strong mediator of any of their knowledge bases. The teachers tried to practice the behaviors demonstrated on the items regardless of their status of CK. On the other hand, the TKT scores revealed that the teachers had better knowledge in content area as compared to the pedagogy area. There was a statistically significant difference among the means of the variables that suggests CK, PK, and PCK could have the potential to influence on the classroom practice.

A correlation analysis indicates that there was fairly strong positive correlation between CK and PK. In line with this, Kaya (2008) found that there was a significant relationship between the CK and PK teachers. CK correlated with PK, suggesting that knowledge related to creating a classroom community characterized by active participation, student engagement, assessment, and feedback has application to content teaching. There was a strong positive correlation between CK and classroom practice. This relationship suggests that the CK and the classroom practice could build upon each another. Similarly, in the research, Ozden (2008) found that CK influenced effective teaching practice. The teachers with higher CK could exhibit potentially more classroom practice. There was a weak positive correlation between PK and practice but Gess-Newsom et al. (2017) found in their research that of all the knowledge bases, only PK was significantly correlated to classroom practice. They also found that ACK and the PCK constructs were not significant in predicting classroom practice but PCK showed a weak negative relationship to classroom practice. In line with this, the current study showed that there was not statistically significant relationship between PCK and classroom practice.

CONCLUSIONS AND RECOMMENDATIONS

The results in the present study portrayed that the EFL teachers had inadequate CK. They had moderate knowledge to design instructional objectives and context whereas their knowledge of students' understandings and misunderstandings was inadequate. They had moderate PCK in using appropriate examples to explain concepts related to the subject matter. The teachers had medium frequency of classroom practice. Their CK and classroom practice showed strong and positive significant correlation. The relationship between PCK and classroom practice showed no

consistency. The lack of positive correlation might be the difficulty of the teachers to use their CK in the classroom exhaustively, the lack of school facilities to use instructional media, the incapability of the teachers to choose instructional media that are related to the contents, the inadequacy of PK to manage, organize, and to assess the students in instructional process. There might be also the curriculum problem and the lack of teachers' commitment to update themselves through reading textbooks, referring to EFL journals, and sharing experience with the professionals.

Since there was not significant relationship between the teachers' PCK and the implementation of classroom practice, the in-service EFL teachers should enrich their knowledge related to junior school students' characteristics and the use of various instructional strategies and approaches. The teachers have to enhance their CK, PK, and PCK in order to design meaningful instruction by considering students' understandings and misunderstandings of the topics along with appropriate instructional representation and strategies. To make the EFL teachers capable in knowledge bases, and in classroom instructional practice, there must be strong and close communication among educational experts, curriculum designers, material developers, EFL teachers, and EFL learners. For future research, it is suggested to conduct long lasting experimental study to investigate the potential changes of the EFL teachers' PCK, classroom practice, and students' proficiency development due to an intervention.

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Availability of Data and Materials

The authors confirm that the data supporting the findings of this study are available within the article.

Conflicting interests

No potential conflict of interest was reported by the authors concerning the research, authorship, and publication of this article.

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