

Using Case-based Learning for Promoting Pre-service EFL Teachers' Pedagogical Content Knowledge and Reducing their Teaching Anxiety

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Abstract:

The present study aimed to investigate the use of case-based learning for promoting pre-service EFL teachers' pedagogical content knowledge and reducing their teaching anxiety. The study group consisted of thirty-three ($n = 33$) pre-service EFL teachers enrolled in the General Diploma in Education, Faculty of Graduate Studies for Education, Cairo University. The study adopted the quasi-experimental design. A proposed case-based learning program was designed to promote pre-service EFL teachers' pedagogical content knowledge and reduce their teaching anxiety. The study instruments included a pedagogical content knowledge checklist, a pedagogical content knowledge test, and a language teaching anxiety scale. The data were analyzed qualitatively and quantitatively. Despite the limitations in the design and execution of the study, the proposed case-based learning program improved pre-service teachers' pedagogical content knowledge and reduced their teaching anxiety.

Keywords; Case-based learning; English as a Foreign Language; Pedagogical Content Knowledge; Foreign Language Teaching Anxiety.

Generally, one of the key factors that could impact the general quality of instruction is the knowledge that teachers have about how to instruct the subject matter to students efficiently. This entails being aware of the subject matter itself and the most effective teaching strategies and tactics. Recently, case-based learning has been growing in popularity in English as a Foreign Language (EFL) teaching and learning, in general, and in teacher education

programs, in particular. Through this approach, linguistic and pedagogical issues are displayed in the form of actual instances or cases, which students have to analyze and negotiate.

Case-based learning was first established in the early 1900s at Harvard Medical School and is also known as ‘case method learning’ or ‘case study teaching’(Putu, 2021, p. 9). According to Hassan (2022), “case studies are in-depth examinations of a person, a group, or an event. They typically depict a past or present problem or a realistic, hypothetical scenario” (p. 1).

Several principles underpin the case-based learning approach, particularly (a) establishing a collaborative relationship between students and teachers, as well as among students, (b) facilitating enhanced contextual learning, c) investigating explanations for both the "how" and "why" questions; and (d) allowing students to explore different viewpoints and perspectives through discussions around the issue (Lee, Albedah, & Liu, 2022). Hence, case-based learning fosters collaboration, analytical thinking, and interpersonal abilities, all of which are crucial for EFL pre-service teachers nowadays

Case-based learning is also significant as an instructional approach for language teachers because it allows prospective and in-service teachers to put language teaching theories into practice while analyzing cases. Through active participation, teachers can cultivate a more profound comprehension of the difficulties and complexities they may encounter in a classroom setting. As a result, pre-service EFL teachers would be able to gain knowledge and abilities that enhance efficacy and

flexibility in their upcoming professional roles (Norawati & Puspitasari, 2022).

Several questions have been raised about what constitutes a case and how it can be implemented in teacher education programs. An increasingly popular type of case in teacher education programs is the 'explanatory' case, a type oriented around a dilemma, a critical incident, or personal experience in teaching. These cases are typically presented from the viewpoint of individuals who are faced with the necessity of taking action regarding these teaching incidents. They are typically presented in an expository writing format and tend to have no predefined outcomes. Pre-service teachers are required to actively engage in the cases and draw conclusions while also presenting analyses and rationales to justify their perspectives. In addition to the explanatory case, there are three other types, namely descriptive, intrinsic, and exploratory, which are best used in the scientific field rather than humanistic (George et al., 2020; Hidayati, 2021).

Cases can be varied in different ways. That is, there could be variations in the case length (from one paragraph to fifteen pages or more), media (print, video, multimedia), and source (fact-based or simulation). In addition, certain cases may be specifically written to be used in teacher education programs. On the other hand, other cases can be adapted from general sources like journal articles, newspaper stories, movies, etc. In addition, some cases can lead to a definitive conclusion, while others are intentionally left open-ended (Cimen, 2021; Dilaverova & Akhvlediani, 2021).

Despite the variations among cases, case-based learning is basically implemented through three fundamental basic steps (Derry et al., 2022; Revita et al., 2022), particularly (a) analyzing the case in detail, (b) determining the fundamental knowledge, i.e., principles, theories, and rules underlying the issue, (c) formulating a plan of action. According to Lee & Hung (2022), a case-based learning session should include learners' reflections on cases individually and collaboratively in order to enhance their know-how of language or language teaching.

On his part, Abubakar (2022) asserts that a well-developed case-based learning session typically ends with a generalization about the teaching experience and some shared understanding of the case's key ideas. Furthermore, pre-service teachers should understand why this specific case was chosen for study, how it connects to fundamental language teaching theories, assumptions, and potential challenges in a language classroom. Moreover, Rihadatul and Hidayati (2022) claim that, by systematically selecting and organizing cases, it becomes relatively easy to implement a variety of practices within a case-based learning session, such as free discussions, reflective journals, case reports, or research papers, resulting in, more elaboration on the concepts and ideas explored in the case.

Some advantages have been reported by researchers advocating the use of case-based learning within EFL teacher preparation programs. According to Norawati and Puspitasari (2022), case-based learning encourages pre-service teachers to utilize their knowledge and skills to formulate conclusions and general ideas. Additionally, it fosters engagement in group discussions, both within and beyond the classroom, thereby promoting collaborative

work. Consequently, instead of being passive listeners, pre-service teachers are actively engaging in the learning process, seeking methods to apply the information, and searching for genuine answers to the problem.

Another significant advantage of case-based learning is that it emphasizes practical skills and real-world teaching experiences. Case studies usually illustrate actual teaching instances, problems, or worries; hence, they provide pre-service teachers with valuable insights into the potential conflicts they may encounter and equip them with strategies to effectively address these challenges. Conversely, traditional learning approaches furnish students with an extensive amount of information and offer limited guidance for getting over anticipated difficulties. If pre-service teachers are overwhelmed with a large amount of information, they may experience confusion and struggle to achieve their practical goals later on (Meihami, 2022).

Case-based learning enables pre-service teachers to gain knowledge at their own pace and examine cases from their own perspectives, enhancing their learning experience by making it more personalized. In addition, it promotes collaboration with peers throughout the entire case-based learning session, leading to a more individualized and interactive learning experience at the same time. It is noteworthy that the probability of learners experiencing a decrease in retention of skills and information obtained through individualized learning is significantly lower if compared to traditional practices (Sadaf et al., 2021).

According to Agustiana (2022) and Tran and Thai (2022), although case-based learning is a highly effective

instructional approach that cultivates pre-service teachers with the necessary expertise to achieve more professional success, it does include several drawbacks. The lack of authentic case studies in the teaching field can hinder pre-service teachers' ability to examine basic theoretical principles and theories about EFL instruction. In addition, the scarcity of resources, mainly case-based textbooks, may also constitute an obstacle that hinders teacher trainers from implementing this approach. Moreover, teacher trainers who are accustomed to conventional lecture-based approaches may be reluctant to embrace the case-based learning approach as a more interactive way of teaching. Moreover, the success of case-based learning activities can face opposition from pre-service teachers, who may prefer passive learning experiences. Time constraints in using case-based learning might pose another challenge.

In this study, case-based learning is defined as an interactive instructional approach that includes in-depth reflective examinations of explanatory cases (cases that are oriented around dilemmas, critical incidents, challenges, or personal experiences in EFL teaching), that are typically formulated to cultivate pre-service teachers with the necessary knowledge, or skill sets to effectively instruct language in the future). Case format can vary from an interview to a crafted scenario.

One main aspect of case-based learning is providing collaborative learning opportunities that encourage pre-service teachers to use their knowledge in order to develop more comprehensive perspectives on a teaching issue. In particular, pedagogical content knowledge constitutes a fundamental component of EFL pre-service teachers' knowledge, which they are required to cultivate and use in

order to experience effective teaching processes in the future.

Pedagogical Content Knowledge

The term pedagogical content knowledge was first introduced by Shulman (1986) to overcome challenges within teacher training that result from favoring either subject matter content or general pedagogy content. The introduced concept, i.e., pedagogical content knowledge, represents an interim among subject matter content and general pedagogy. That is, pedagogical content knowledge blends subject matter expertise with an understanding of how to instruct that content successfully. According to Gomez (2020), pedagogical content knowledge involves understanding the most popular subjects and learning goals, as well as knowing what makes particular topics challenging and how to effectively convey them to students. Comprehensive pedagogical content knowledge enables teachers to modify their instruction to fit the various needs of their students and support their academic progress.

Building on the work of Shulman (1986), many academics have investigated categories that underly and constitute pedagogical content knowledge (Tseng et al.,2022; Saricoban& Kirmizi, 2020). However, pedagogical content knowledge basically includes four categories of knowledge (Kharlay et al., 2022; Sadeghi et al., 2022): (a) knowledge of the aspects of the learning process and challenges that may encounter, (b)teachers' knowledge about goals and methods of teaching the subject matter to students at, (c) knowledge about the subject matter that enables the teacher to compressively establish connections among different

areas of same or other subjects, (d) contextual knowledge that helps teachers make instructional decisions (i.e choosing a specific teaching plan type, assessment method, classroom practice, classroom setting ...etc).

In addition, pedagogical content knowledge has been considered as a combination of teachers' knowledge and ongoing reflection on real teaching experiences (Wang & Zhan, 2023), which re-informs their instruction and shapes their current or prospected classroom practices. Lyu and Chen (2021) assert that the ongoing reflection on teaching experiences plays the role of an internal motivation that language teachers need to get better. It is characterized by being deliberate and continuous, which is likely to bring about change in their classroom practice. This is consistent with Abubakir and Alshaboul's (2022) claim that teachers develop pedagogical content knowledge by contemplation and reflection rather than via exploring or gaining classroom experience alone.

To conclude, pedagogical content knowledge can be defined as a combination of knowledge about the English language as subject matter content, pedagogy in general, and practical teaching knowledge formulated and reinforced through reflection on one's own real teaching experiences or others.

Foreign Language Teaching Anxiety

Generally speaking, the profession of teaching is distinguished by a psychological burden (Agustiana, 2019). Anxiety was identified as a significant feeling observed in both pre-service and in-service EFL teachers and might adversely affect their teaching performance (Frachini & Park, 2021; Sari & Awar, 2021). Foreign language

teachers' anxiety negatively influences the language learning process by provoking and reinforcing feelings of unease within the EFL learning environment.

Foreign Language Teaching Anxiety (FLTA) was first discussed concerning the experiences of non-native pre-service teachers by Horwitz (1996), who clarified that the primary reason for the anxiety experienced by EFL teachers in the classroom is that they are also still EFL learners. The same viewpoint was also raised by (Kobul & Saracoglu,2020; ElQuastani,2020) who claim that non-native EFL teachers may suffer from FLTA as a consequence of their low language proficiency or self-efficacy. In other words, FLTA may arise as a result of frequent feelings of linguistic inadequacy or low self-efficacy. Other scholars identify additional factors that may provoke FLTA within classroom settings (Aydin & Ustuk, 2020; Can, 2019; Kazaoglu, 2020; Farhadi, 2021; Fernandez-Batanero et al., 2021; Liu & Wu, 2021; Pesonen-Wen, 2022; Turkmen, 2019) including; classroom management, particular language teaching strategies, or power-related problems like supervisor-teacher interactions, time management, mentor notes, issues with classroom management, and unfamiliarity with technology, the fear of failure, poor learner proficiency levels, students' unexpected inquiries and an inadequate degree of preparation.

Despite the extensive research on FLTA, there is still a debate about its constituent elements. This study adopts the comprehensive definition introduced by Chen (2022), which is particularly relevant to pre-service EFL teachers.

‘Pre-service EFL teachers’ anxiety refers to the stressful emotions experienced by pre-service teachers who are receiving professional teacher education programs in a long-term or short-term context during university coursework, teaching practicum, or interacting with their supervisors, fellow pre-service teachers, and peer classmates’ (p. 179).

Some studies have investigated the development of the FLTA scale for assessment purposes. Initially, Kim and Kim (2004) created a holistic scale to evaluate the FLTA of pre- and in-service teachers. Eventually, Merç (2010) developed a scale that only addresses pre-service EFL teachers with less emphasis on teaching practicum issues. Recently, Aydin and Ustuk (2020) designed a scale to assess the FLTA of pre-service teachers undertaking or about to have their teaching practicum as a part of their teacher-preparation program. Their study’s findings demonstrated that their proposed FLTA scale obtained a high-reliability coefficient value and a high internal consistency value after being applied to a group of 100 pre-service EFL teachers enrolled in a teacher education program.

Context of the problem

The current study investigates the use of the case-based learning approach to improve pre-service EFL teachers’ pedagogical content knowledge and reduce their teaching anxiety. The researcher has been employed by the Faculty of Graduate Studies for Education as a TEFL lecturer since 2012. The researcher noticed that EFL pre-service teachers had noticeable levels of teaching anxiety and a low mastery level of pedagogical content knowledge. The results of

other studies confirmed this observation (Ahmed, 2022; Elsayed, 2021; El-Dengawy, 2020; El-Mahdy, 2019).

In addition, a set of 20 pre-service EFL teachers participating in the General Diploma of Education were given a pedagogical content knowledge test designed by the researcher. The findings showed that pre-service teachers need to improve their pedagogical content knowledge mastery level. It also highlighted the necessity of replacing conventional teaching methods with innovative ones. Furthermore, the researcher conducted a survey to assess the degree of teaching anxiety among 20 pre-service EFL teachers participating in the General Diploma of Education. The findings of the survey revealed that 72% of the participants had elevated levels of teaching anxiety (see Appendix A for the pilot study).

Statement of the Problem

Pre-service EFL teachers enrolling in the General Diploma in Education at the Faculty of Graduate Studies for Education show an elevated level of teaching anxiety and inadequate command of the pedagogical content knowledge, both of which can be attributed to the traditional teaching methodology courses. In order to increase students' mastery of the pedagogical content knowledge and lower their degree of teaching anxiety, the researcher investigates the usage of a case-based learning approach.

The current study attempts to answer the following central question:

What is the effect of using case-based learning on promoting pre-service EFL teachers' pedagogical content knowledge and reducing their teaching anxiety?

A set of subsidiary questions branches from this main question as follows:

1. What is the effect of the proposed case-based learning program on promoting pre-service EFL teachers' pedagogical content knowledge?
2. What is the effect of using the proposed case-based learning program on reducing pre-service EFL teachers' teaching anxiety?

The hypotheses of the study

1. There are statistically significant differences between the study group's mean scores in the pre-and post-administration of the pedagogical content knowledge test in favor of the post-administration
2. There are statistically significant differences between the study group's mean scores in the pre-and post-administration of the pre-service EFL teachers' teaching anxiety scale in favor of the post-administration.

Method

Design of the Study

This study employed a quasi-experimental research design, with a sample consisting of one experimental group. The group study was taught through case-based learning as an instructional approach to enhance the pedagogical content knowledge of EFL pre-service teachers and reduce their teaching anxiety. It is noteworthy that the researcher instructed the students in the study group. The EFL pedagogical content knowledge test and the foreign language teaching anxiety scale were undertaken by the study's group before and after implementation, respectively.

Participants

The study group were thirty-three (n=33) pre-service EFL teachers enrolled in the General Diploma in Education, Faculty of Graduate Studies for Education, Cairo University. Participants' ages ranged from 24 to 28 years old.

Instruments

Pedagogical Content Knowledge Checklist

The researcher developed a checklist aimed at determining domains and sub-domains of pedagogical content knowledge that are most important for pre-service EFL teachers. It was judged by a panel of three TEFL specialists in order to ensure its validity. The final version of the checklist comprised eight main domains of pedagogical content knowledge, namely, language knowledge, teaching methods, lesson planning, teaching the four language skills, designing assessment tools, evaluation rules, classroom management, and TEFL theories and approaches (see Appendix B for the final version).

Pedagogical Content Knowledge Test

The pedagogical content knowledge pre-post examination was developed by the researcher on the basis of the pedagogical content knowledge checklist. The test aimed to assess the mastery level of EFL pre-service teachers' pedagogical content knowledge. The test comprised a total of forty-five multiple-choice questions designed to assess the pedagogical topic knowledge of EFL pre-service teachers pedagogical content knowledge in relation to eight main domains of pedagogical content knowledge, namely, language knowledge, teaching methods, lesson planning, teaching the four language skills, designing assessment

tools, evaluation rules, classroom management, and TEFL theories and approaches. A score of one mark is allocated to each question, resulting in a cumulative total of 45 marks.

In order to validate the test, it was reviewed by a panel that consisted of three jury members who were TEFL experts. This judgment focused on determining the appropriateness of the test items to the measured domains of pedagogical content knowledge, the suitability of its content for pre-service EFL teachers, and the appropriateness of the total number of test items, as well as the specific number of items for each sub-domain of pedagogical content knowledge.

A random sample of twenty EFL pre-service teachers enrolled in the General Diploma in Education, Faculty of Graduate Studies, were chosen to undertake the pedagogical subject knowledge pre-posttest in order to assess its reliability. Those pre-service teachers were excluded from the whole experiment. A subsequent administration of the test was conducted on the same group after two weeks. This study employed the test-retest methodology. Subsequently, the Pearson correlation coefficient was computed to assess the relationship between the test and re-test results. The obtained reliability coefficient of 0.85 indicates a relatively high level of reliability. Thus, it can be said that the test displays a significant level of reliability in regard to the present study.

Moreover, the test was piloted by being administered to ten pre-service EFL teachers enrolled in the General Diploma in Education, Faculty of Graduate Studies for Education, who were not included in the experiment. Those who

participated were not part of the study group. The objective of piloting the test was to determine the time of the test by computing the average time taken by the fastest and slowest pre-service EFL teachers in completing the test. The duration of the test was 45 minutes (see Appendix B for final version).

Foreign Language Teaching Anxiety Scale

To determine the level of teaching anxiety of the pre-service EFL teachers, the researcher adopted and adapted the FLTA scale introduced by Aydin and Ustuk (2020). As mentioned earlier, this scale was developed to assess pre-service EFL teachers who are undertaking or about to have their teaching practicum as part of their teacher-preparation program. In addition, the scale possesses high reliability and internal consistency. It consisted of twenty-six (26) sentences (see Appendix B).

Procedures

The implementation occurred over the first and second semesters of the scholastic year 2021-2022. It started on October 10, 2021, and ended on May 12, 2022. The researcher conducted an initial session with the participants, lasting for one hour, during which the proposed case-based learning program was introduced, and the session outline was demonstrated. In addition to the introductory session, the researcher met students once per week; there were 27 face-to-face sessions throughout the implementation of the proposed case-based learning program (a total of 81 hours).

The proposed ‘case-based learning program’ consisted of nine adopted and adapted explanatory cases written for pre-service EFL teacher education programs by Lindsay and

Knight (2018). These cases were developed fundamentally based on authentic interviews with novice and experienced FL teachers. Within the program, each case was taught throughout three successive sessions, namely: (a) case analysis session, (b) fundamental knowledge session, and (c) action plan session. Each session lasted for three hours, with a total of nine (9) hours for each case.

During the first session, participants engage in a collaborative analysis of the case from a variety of perspectives, thereby acquiring a more comprehensive understanding. The second session entails looking into teaching concepts that are tackled collaboratively and individually, resulting in a deeper conceptualization of the fundamental teaching practices. In the third session, participants attempt to apply their newly acquired knowledge to develop reflective action plans (see Appendix C for the full description of the case-based learning program, i.e., objectives, cases, time distribution, and activities).

Results

All data were statistically treated using a statistical package for social science (SPSS), particularly the t-test and Eta square effect size formula. To verify the first hypothesis, the scores of the experimental group participants on the pre- and post-administrations of the pedagogical content knowledge test were compared using a t-test. Results indicated statistically significant changes at a significance level of 0.01 in favor of the post-administration, as presented in Table 1.

Table (1): Results of the pedagogical content knowledge test comparing the experiments group students' scores

overall	Domains	Pre		Post		T value	Effect size	
		Mean	St.D	Mean	St.D			
Pedagogical content knowledge	Language knowledge	2.1211	.77190	4.4519	.80815	4.12	.847	Significant impact 0.001
	Teaching methods	1.2972	.96266	4.4279	.75417	5.56	.745	
	Lesson planning	2.0859	.84847	4.5721	.97238	4.48	.844	
	Teaching the four language skills	2.1922	.77084	4.5769	.90591	5.99	.685	
	Designing assessment tools	1.1605	.71577	4.2212	.92382	6.36	.701	
	Evaluation rules	1.0477	.90524	4.0986	.86004	5.39	.811	
	Classroom management	1.7028	.98890	4.7284	.77039	5.14	.785	
	TEFL approaches and theories	1.6876	.76474	4.8798	.89877	6.42	.746	
Overall	19.52	2.621	41.52	3.185	12.325	0.847	Large	

The results from Table 1 indicated statistically significant differences in the mean scores of the experimental group students before and after the implementation of the pedagogical content knowledge test. The post-administration scores were more significant than the pre-administration scores, with a t-value of (12.325)and an effect size of(0.847).

Furthermore, the mean scores of the experimental group students in the pre-post administration of the FLTA scale were compared, a key step in verifying the second hypothesis, as presented in Table 2.

Table (2): Results of pre-post administrations of the FLTA scale comparing the experimental group students' mean scores

Survey Items	Pre – administration		Post-administration	
	Mean	St.D	Mean	St.D
Sentence 1	3.5397	0.25192	1.7890	0.29442
Sentence 2	3.8116	0.13141	1.3192	0.73725
Sentence 3	3.7890	0.45895	1.2326	0.60757
Sentence 4	4.0586	0.06517	1.2048	0.90771
Sentence 5	3.5233	0.98231	1.3000	0.90244
Sentence 6	3.7169	0.94360	1.5964	0.87514
Sentence 7	3.9000	0.00975	1.5556	0.01490
Sentence 8	3.0723	0.73599	1.1333	0.84305
Sentence 9	3.2540	0.12104	1.1875	0.42905
Sentence 10	3.8417	0.99017	1.6092	0.12289
Sentence 11	3.5000	0.33900	1.6984	0.91622
Sentence 12	3.3908	0.64199	1.9724	0.36402
Sentence 13	3.2381	0.09377	1.5138	0.71587
Sentence 14	3.2085	0.08963	1.5440	0.23793
Sentence 15	3.1009	0.12382	1.3372	0.86585
Sentence 16	3.5212	0.79508	1.9699	0.18980
Sentence17	3.2326	0.56232	1.4333	0.60730
Sentence 18	3.7711	0.24299	1.6084	0.14840
Sentence 19	3.6000	0.59693	1.4444	0.08889
Sentence 20	3.0482	0.89578	1.6917	0.20398
Sentence 21	3.8571	0.90637	1.7292	0.50525
Sentence 22	3.9417	0.37140	1.5287	0.60503
Sentence 23	3.2083	0.62523	1.9365	0.65107
Sentence 24	3.1839	0.98262	1.8417	0.22343
Sentence 25	3.9206	0.58595	1.3670	0.12594
Sentence 26	3.2965	0.73839	1.0619	0.32343

Results indicated statistically significant differences in students’ mean scores in favor of the post-administration.

Discussion

Based on the statistical analysis presented, it is evident that using the proposed case-based learning program significantly promoted pedagogical content knowledge (effect size 0.847) and reduced the teaching anxiety of the

experimental group students (as shown in Table 2). The experimental group students' tangible development in their mastery level of the pedagogical content knowledge and reduction in their FLTA level can primarily be attributed to the use of the proposed case-based learning program.

These results are consistent with earlier studies that have shown the effectiveness of case-based learning practices, particularly when it comes to FL teacher preparation programs (Abubakar, 2022; Derry et al., 2022; Norawati & Pupitasari, 2022). Several factors contributed to the participants' increasing mastery level of the pedagogical content knowledge and reduced level of the FLTA, particularly (a) the case-based learning characteristics, (b) the instructional design of the suggested case-based learning program (i.e., sessions instructional framework and included techniques); and (c) issues related to the selected cases (i.e., type, format, length, source, sequence).

Characteristics of case-based learning were very beneficial in establishing a unique collaborative and risk-taking classroom environment. Throughout the whole program, participants investigated practical teaching experiences through different or even opposing perspectives, resulting in a more comprehensive conceptualization of the fundamental teaching knowledge. They were actively participating in a dynamic process of knowledge construction and meaning negotiation.

At the same time, a deeper level of understanding has been constantly promoted and reinforced through analyzing authentic practical experiences (presented in the cases) and connecting them to new academic teaching concepts. By working together, participants were able to simultaneously

undergo the processes of knowledge construction and concept reformulation collaboratively and relate their shared conceptualizations to the practical experience presented in the case. Hence, participants were able to examine their understanding with their peers and teacher, on the one hand, and to relate it to practical real-world experience, on the other hand.

The proposed case-based learning program was designed to be implemented during a whole scholastic year, providing participants with the necessary time to immerse themselves in the cases and extract valuable concepts from them. With adequate time, participants were able to examine each case individually and with their peers and write well-developed action plans. Moreover, participants were allowed to learn at different paces, resulting in a more immersive learning environment.

One main aim of the proposed case-based learning program was to arouse participants' interest in challenges presented in the case that may be faced later on. Techniques that were implemented throughout the sessions were question-led discussion, note-taking, collaborative summarization, and reflective writing.

Each case is investigated in three successive sessions, namely: (a) case analysis, (b) fundamental knowledge, and (c) action plan. In the 'case analysis' session, participants were asked to read the cases critically and collaboratively. Different perspectives around the same issue were investigated, resulting in a deep understanding of the case holistically and analytically at the same time. In the 'fundamental knowledge' case, participants were encouraged to investigate teaching concepts provoked in the case individually and collaboratively. By receiving

assistance from the researcher, participants were gradually able to determine fundamental teaching practices and the rules underlying them. This procedure not only fostered participants to grasp the basic concepts more effectively but also reformed their understanding and conceptualization of teaching concepts and fundamentals. In the ‘action plan’ session, participants gradually attempted to adapt the knowledge they had gained and use it in their reflection on the speculated classroom activities and potential challenges. With continuous assistance and support from the teacher and peers, participants were able to reflect on the examined case and write action teaching plans. As a result, participants felt confident about their abilities to overcome similar challenges in their future careers.

Cases included in the sessions were carefully selected to promote participants’ thinking, trigger them to reflect on specific teaching knowledge, and develop a more comprehensive teaching experience. The researcher adapted case studies proposed by Lindsay & Knight (2018), which were written specifically for teacher education programs and were only based on actual interviews with novice and experienced FL teachers. As a consequence, cases were authentic and comprehensive to induce participants’ conceptualization of the most essential teaching practices and principles. Cases were presented in a written format, which allowed participants to take notes and summarize quickly. The length of cases ranged from one page to two only (not too long); hence, they were suitable for the time allotted for program implementation.

Furthermore, implementing the case-based learning program significantly reduced teaching anxiety among pre-service EFL teachers by offering real and well-arranged learning opportunities. The cases, derived from authentic

interviews conducted with novice and experienced educators, established an explicit connection to the practical aspects of teaching. Consequently, this reduced anxiety provoked by expecting teaching situations or circumstances. Implementing the proposed case-based program, encompassing analysis of particular cases, reinforcing fundamental knowledge, and developing action plans facilitated an ongoing growth of participants' comprehension of the learning process and possible teaching classroom challenges, hence reducing participants' teaching anxiety.

Additionally, participants' teaching anxiety was reduced due to the emotional support they received from peers while engaging in conversations about anticipated teaching problems provoked in the cases collaboratively. Moreover, the repeated exposure to multiple cases facilitated their familiarity with varied aspects of the teaching and learning process; hence, participants' sense of ease was provoked more effectively. Finally, the time allotted for each session facilitated extensive engagement of the participants with the sessions, gradually decreasing their teaching anxiety by enhancing their self-confidence and practical skills for solving problems.

Conclusion

The study aimed to investigate the use of a case-based learning approach for promoting pre-service EFL teachers' pedagogical content knowledge and reducing their teaching anxiety. The case-based learning program was designed and used to instruct EFL pre-service teachers in the General Diploma in Education at the Faculty of Graduate Studies for Education, Cairo University. The study results showed that case-based learning promotes pre-service EFL

teachers' pedagogical content knowledge and reduces their teaching anxiety. The study's findings revealed that the proposed case-based learning program offered pre-service EFL teachers the opportunity to develop a better understanding of the teaching practices and theories underlining them and to adapt the gained knowledge to fit in diverse speculated teaching contexts, which in turn reduced their FLTA level.

Recommendation

Based on the current study findings, it is highly recommended that student teachers or pre-service teachers explore and investigate other case-based learning interventions. EFL educators and experts should pay attention to the allotted classroom time for dealing with pedagogical content knowledge in the teacher education program. It is also important that EFL instructors and specialists integrate case-based learning into pre-service preparation and in-service EFL teachers' professional development programs. Additionally, it is recommended that researchers examine the long-lasting impacts of implementing case-based learning for pre-service and in-service EFL teachers.

References

- Abubakar, H., & Alshaboul, Y. (2023). Unraveling EFL Teachers' Mastery of TPACK: Technological Pedagogical and Content Knowledge in Writing Classes. *Heliyon*, 9(6), e17348.
- Abubakar, R. (2023). Impact Of Case-Based and Scenario Instructional Strategies on Pre-Service English Teachers' Learning Outcomes in Colleges of Education in Gombe State. *International Journal of Innovative Education Research*, 11(4), 26-34
- Agustiana, S. (2023). An Investigation of the Advantages and Challenges of Case-based Method in EFL Classroom. *FLIP: Foreign Language Instruction Probe*, 2(2), 80-90.

- Ahmed, A. (2022) The Effectiveness of a Blended Program Based on Pragmatics in Developing Pre-Service Teacher's Communication and Presentation Skills. (Ph.D. Doctorate, Faculty of Education, Minia University)
- Çimen, S. S. (2021). Use of the Case-Based Method in Getting Prepared for Young Learners' EFL Classes. *International Journal Of Curriculum And Instruction*, 13(2), 1464-1477.
- Derry, S., Siegel, M., Stampen, J., & Team, S. (2022). The STEP System For Collaborative Case-Based Teacher Education: Design, Evaluation & Future Directions. In *Computer Support for Collaborative Learning* (pp. 209-216). Routledge.
- Dilaverova, T., & Akhvlediani, L. (2021). The Importance Of Using Case-Based Learning In A Foreign Language Classroom In Medical Education. *ICERI 2021 Proceedings* , 9911-9915.
- EL-Dengawy ,R.(2020).A Proposed Training Program based on Marzano's Model of Teacher Evaluation For Developing EFL Teachers' Professional Performance And Students' Attitudes Towards The English Language(Ph.D. Doctorate, Faculty Of Education, Damieeta University)
- El-Mahdy , W.(2019).A Self-Efficacy Program For Developing The Experimental And Language Schools EFL Teachers' Professional Skills, And Its Effect On The Language Performance of Their Students: A Case Study (Ph.D. Doctorate, Faculty of Education, Ain Shams University)
- Elsayed, A. (2021) A suggested E-mentoring model develops EFL student-teachers Self-Efficacy and Emotional Intelligence. (Ph.D. Doctorate ,Faculty of Education, Ain Shams University)
- George, T., Carey, R. , Abraham, O , Sebastian, T. & Faith, M.(2020). Trainee Doctors In Medicine Prefer Case-Based Learning Compared To Didactic Teaching. *Journal of Family Medicine and Primary Care*. Html_10.4103/jfmpc.jfmpc_1093_19.
- Gomez, J. C. (2020). Development of EFL Teachers' Pedagogical Content Knowledge Through Action Research .*Problems of Education in the 21st Century*, 78(4), 533-552.
- Hassan, M. (2021). Case Study : Methods, Examples, and Guide . <https://researchmethod.net/case-study-research.html>
- Hidayati, L. (2021). Case-based Method And Its Implementation In English For Medical Purposes. *Journal of Language, Literature, and English Teaching (JULIET)*, 2(2), 36-42.
- Kharlay, O., Wei, W., & Philips, J. (2022). How do I teach? Exploring Knowledge Of Reflective Practice Among In-Service

- EFL Teachers In Ukraine. *Teachers and Teaching*, 28(2), 188-205.
- Lee, C. Albedah, F., & Liu, W. (2023). Based Principles for Case-Based Learning for Teachers' Professional Development. *Designing Technology-Mediated Case Learning in Higher Education: A Global Perspective* . Springer.
 - Lee, T. & Hung, C. (2022). Investigating the Influence of Hybrid Case-based Learning on Stimulating College Adjunct EFL Faculty's Collective Reflection. *Chung Cheng Educational Studies*, 21(2), 1-50.
 - Lyu, R., & Chen, J. (2021). Survey of Pedagogical Content Knowledge :Teachers' Views on Reflection. *Converter*, 642-657.
 - Meihami, H. (2022). An Exploratory Investigation into EFL Teacher Educators' Approaches To Developing EFL Teachers' Ability To Teach For Creativity. *Thinking Skills and Creativity*, 43, 101006.
 - Norawati, R., & Puspitasari, Y. (2022). The Learning Skills of English as a Foreign Language student-teachers in Project-Based Learning And Case-Based Learning. *Journal of English Education and Linguistics Studies*, 9(2), 255-277.
 - Putu, A. (2021). Case-based Learning In Language Teaching. *Journal on Studies in English Language Teaching* , 2(2), 13-19.
 - Revita, I., Trioclarise, R., Zalfikhe, F. , & Andriani, R. (2022). Case-Based Method as the Way to Motivate the Students in Learning English Pragmatics. *4th International Conference on Educational Development and Quality Assurance* ,Atlantis Press.
 - Rihadatul, A., & Hidayati, N. (2022). Case-Based Learning In Improving Critical Thinking Skill On Reading Comprehension for The Eleventh Grade Students. *Journal Ilmiah Sultan Agung*, 1(1), 46-55.
 - Sadaf, A., Kim, S., & Wang, Y. (2021). A Comparison of Cognitive Presence, Learning, Satisfaction, And Academic Performance in Case-Based and Non-Case-Based Online Discussions. *American Journal of Distance Education*, 35(3), 214-227.
 - Sadeghi, S., Aliakbari, M., & Yasini, A. (2022). A Model of EFL Teachers' Pedagogical Content Knowledge: A Data-Driven Approach. *Teaching English as a Second Language Quarterly*, 41(2), 205-243.
 - Sariçoban, A., & Kırmızı, Ö. (2020). The Manifestations of Micro and Macro Categories of Pedagogical Content Knowledge in The Practices of Prospective EFL Teachers. *Journal of Language and Linguistic Studies*, 16(2), 661-683.

- Shulman, L.(1986).Paradigms And Research Programs For The Study of Teaching. *Handbook of Research on Teaching*. New York: Macmillan.
- Tran, T., & Thai, D. (2023). Vietnamese EFL Instructors' Perceptions of Case-Based Learning in A Communication Course. *European Journal of Applied Linguistics Studies*, 6(1).
- Tseng, J., Chai, C., Tan, L., & Park, M. (2022). A Critical Review of Research on Technological Pedagogical and Content Knowledge (TPACK) in Language Teaching. *Computer Assisted Language Learning*, 35(4), 948-971.
- Wang, L., & Zhan, F. (2023). Elaborating Teachers' Pedagogical Content Knowledge from Static and Dynamic Perspectives. *Creative Education*, 14(11), 2301-2312.
