Enhancing Pedagogical Practices: Insights from Novice and Experienced English Language Teachers

MOSTAFA MORADY MOGHADDAM (iD)

mmoghaddam@shahroodut.ac.ir
Shahrood University of Technology, Shahrood, Iran

MOHAMMAD HOSSEIN TIRNAZ

h_tirnaz@yahoo.com
Shahid Chamran University of Ahvaz, Ahvaz, Iran

Abstract

This study investigates the pedagogical knowledge of novice and experienced English as a foreign language (EFL) teachers in Iran by analyzing their verbal reports. This research aims to identify the pedagogical knowledge categories inferred from the teachers' reports, determine the frequency of occurrence of each category, and compare the differences between novice and experienced teachers. This study employs the Stimulated Recall Technique and combines quantitative and qualitative data analyses. The teaching process (about 90 min) of a total of 40 EFL teachers recorded, and then the teachers were interviewed about their teaching practices. The data were transcribed and analyzed using Gatbonton's (2008) framework of pedagogical knowledge categories. The dominant pedagogical knowledge categories for novice teachers were Procedure Check, Language Management, Note Behavior, Progress Review, Knowledge of Students, and Affective, accounting for 67.33% of their pedagogical thought units. In contrast, the dominant pedagogical knowledge categories for experienced teachers were Language Management, Procedure Check, Progress Review, Beliefs, Decisions, and Note Behavior, accounting for 66.22% of their pedagogical thought units. This study contributes to the understanding of EFL teachers' pedagogical knowledge in the Iranian context and has implications for teacher training and professional development. The findings can inform the design of effective training programs that address the specific needs of novice and experienced teachers, thereby enhancing their pedagogical knowledge and instructional practices.

Introduction

Teaching is widely recognized as a cognitive process in which teachers engage in various forms of thinking throughout their classroom activities (Mullock, 2006). This cognitive aspect of teaching is believed to have a significant impact on teachers' performance, teaching approaches, and classroom practices (Gao & Cui, 2022; Zarrinabadi & Afsharmehr, 2022). Supporting this notion, Borg (2003) argues that teachers are active decision-makers reliant on intricate networks of knowledge, thoughts, and beliefs that are practical, personalized, and sensitive to the context in which they teach.

Research on teachers' thinking processes has been a prominent area of study since the 1970s (Freeman, 2002). This research has contributed to a substantial body of knowledge concerning the underlying processes of teachers' performance, not only in mainstream education but also in language education (Karimi & Norouzi, 2019). The investigation of teachers' thinking processes gained significant momentum with the introduction of the concept of pedagogical content knowledge by Shulman (1987). Pedagogical content knowledge combines both content knowledge and pedagogical knowledge (PK), providing a framework for understanding the unique knowledge and skills required for effective teaching.

In the late 1990s and early 2000s, researchers began to recognize and acknowledge the existence of a specific form of knowledge that influences the classroom performance of second language (L2) teachers (Karimi & Norouzi, 2019; Kubanyiova & Feryok, 2015). This realization prompted a comprehensive reconceptualization of what constitutes the knowledge base of pedagogical content knowledge (Freeman, 2002). In other words, it laid the foundation for redefining the knowledge base that underlies L2 teachers' performance and establishing higher standards and requirements for educational programs (Karimi, 2011). As a result, there has been an increased interest among scholars in investigating L2 teachers' PK (e.g., Akbari & Dadvand, 2011, 2014; Gatbonton, 1999, 2008; Karimi, 2011; Karimi & Norouzi, 2017, 2019; Mullock, 2006). PK is defined as the "accumulated knowledge about the act of teaching, including the goals, procedures, and strategies which form the basis of what teachers do in the classroom" (Mullock, 2006, p. 48). Pedagogical thoughts refer to smaller, distinct units such as utterances, which can be categorized under a single unit known as pedagogical thought units (PTUs).

Borg (2003) identified several factors that contribute to shaping teachers' pedagogical thoughts and pedagogical content knowledge. These factors include teachers' background knowledge, teaching experience, content knowledge, and the types of classroom activities

they engage in. Teachers' background knowledge, including their educational background and personal experiences, can influence their pedagogical thoughts and PK. Teaching experience is also considered a significant factor in shaping teachers' PK, as it provides opportunities for reflection, professional growth, and the development of practical knowledge (Akbari & Dadvand, 2011, 2014; Gatbonton, 1999, 2008; Karimi & Norouzi, 2017, 2019). Additionally, teachers' content knowledge, or their knowledge of the subject matter they teach, plays a role in shaping their pedagogical thoughts and PK. The types of classroom activities that teachers engage in can also shape their pedagogical thoughts and PK, as different activities require different instructional strategies and approaches.

Experience is indeed a crucial factor in shaping teachers' thoughts, and it develops over time through an accumulative process. However, teaching experience should not be equated with expertise (Bereiter & Scardamalia, 1993; Karimi & Norouzi, 2019). In recent years, there has been a growing interest among scholars in investigating the pedagogical expertise of second language teachers (Moradkhani & Rahimi, 2020). This interest has led to studies that compare the thoughts and practices of novice and experienced teachers based on their years of teaching experience (e.g., Hosseini et al., 2017; Karimi & Norouzi, 2019). Despite the increasing interest in investigating teachers' pedagogical content knowledge, there is limited scientific understanding of what constitutes English as a foreign language (EFL) teachers' PK base, as only a few studies have explored this area (König et al., 2016).

This study aims to investigate the pedagogical knowledge of novice and experienced EFL teachers in Iran by analyzing their verbal reports. By utilizing Gatbonton's framework, commonly employed in previous studies on pedagogical knowledge, this research seeks to explore how teaching experience influences the thought patterns and instructional practices of EFL teachers. Through a comparison of novice and experienced teachers, the study delves into the development of teachers' concerns and priorities, shedding light on the dynamic nature of pedagogical knowledge development in the EFL context. The findings not only contribute to the field of teacher training and professional development but also offer insights for designing tailored training programs to enhance pedagogical knowledge and instructional practices among EFL teachers, ultimately enriching the educational landscape in Iran and beyond.

2. Review of the literature

In recent years, there has been a growing interest among scholars in investigating language teachers' pedagogical thoughts. This has resulted in the emergence of a new research area called Pedagogical Knowledge, which is a subset of teachers' knowledge (Akbari & Dadvand,

2011, 2014; Akbari & Tajik, 2009; Gatbonton, 1999, 2008; Hosseini et al., 2017; Karimi & Norouzi, 2017, 2019; Mullock, 2006). The field of PK research was primarily inspired by Gatbonton's (1999) study, which pioneered the introduction of pedagogical thought patterns based on the classroom performance of experienced ESL teachers. Gatbonton (1999) controlled variables such as textbooks and teachers' experiences and used the Stimulated Recall Technique to derive 21 categories of PK from the reports of experienced ESL teachers. The most frequently reported pedagogical categories in Gatbonton's (1999) study were Language Management, Knowledge of Students, and Procedure Check. This study has since paved the way for further research on teachers' PK.

The review of the literature indicates that in the past decade, there has been an increasing interest among scholars in the field of EFL to explore the PK of language teachers from various perspectives (e.g., Atai & Shafiee, 2017; Estaji & Jahanshiri, 2022; Hosseini et al., 2017; Karimi & Norouzi, 2017, 2019). Some studies in the EFL context have specifically compared the PK of novice teachers with that of experienced teachers to examine the similarities, differences, and patterns in their pedagogical thought reports (e.g., Hosseini et al., 2017; Karimi & Norouzi, 2019). For example, Atai and Shafiee (2017) evaluated the PK base and thought patterns of three EFL teachers on the basis of their reports of oral corrective feedback on grammatical errors. The study found that the participants' pedagogical thought patterns were consistent and that the teachers' academic backgrounds played a significant role in enhancing their overall PK. Similarly, Hosseini et al. (2017) investigated the PK of a group of novice teachers and a group of experienced EFL teachers. The study revealed that the two groups shared many similarities in terms of their reported pedagogical thought patterns but also exhibited significant differences in certain major PK categories. The study concluded that experience plays a crucial role in the development of EFL teachers' PK.

In another study, Karimi and Norouzi (2017) examined the impact of expert mentoring programs on the development of novice EFL teachers' PK. This study compared the PTUs of novice teachers before and after completing a mandatory teacher education program. The findings indicated a noticeable difference in the PTUs produced by novice teachers before and after the program, indicating that the mentoring program had a positive effect on building their PK. Similarly, Karimi and Norouzi (2019) investigated the cognitive aging of EFL teachers by comparing different groups of teachers with varying levels of experience in language teaching (ranging from 1 to 10 years). The study revealed that teaching experience, particularly within the first five years, had the greatest impact on the development of teachers' PK. However, the positive impact of experience on PK development diminished as teachers reached the ten-year mark in their teaching careers. More recently, Estaji and Jahanshiri

(2022) compared the pedagogical thoughts and PK of three groups of teachers from Inner, Outer, and Expanding Circle countries in the context of English as an International Language. The results of the study demonstrated that although all three groups of teachers exhibited a high level of PK, there were significant differences in the pedagogical categories reported by EFL and ESL teachers.

This study sets out to explore the pedagogical content knowledge of novice and experienced EFL teachers in Iran, aiming to identify and compare the dominant pedagogical knowledge categories inferred from their verbal reports. While previous research has examined differences between novice and experienced teachers, this study seeks to provide a more detailed analysis by investigating the patterns and frequencies of these categories within the Iranian EFL context. By utilizing Gatbonton's framework, this research investigates how experience shapes teachers' pedagogical thoughts and priorities. This study's focus on the dynamic nature of pedagogical knowledge development and the potential shifts in teachers' concerns and priorities over time distinguishes it from existing literature. Through an examination of the pedagogical knowledge categories and their implications for teacher training and professional development, this research enhances EFL instruction practices in Iran and beyond.

Our research can contribute to the field by examining the effectiveness of specific training or professional development programs in enhancing the pedagogical content knowledge of both novice and experienced EFL teachers. By identifying areas where targeted interventions can lead to improvements in teachers' pedagogical practices, we can provide evidence-based recommendations for strengthening teacher training programs in the Iranian EFL context. While previous studies have laid the groundwork for comparing novice and experienced EFL teachers' pedagogical content knowledge, our research aims to offer novel findings by conducting a more detailed analysis of pedagogical knowledge categories, considering contextual influences, and exploring the role of experience as a moderating factor. By addressing these aspects, we seek to strengthen the existing literature and provide valuable insights for improving EFL teacher education and professional development in Iran.

Our study addresses gaps in the literature by focusing on the pedagogical knowledge categories inferred from the verbal reports of both novice and experienced EFL teachers in Iran. By comparing the frequency and patterns of these categories between the two groups, we aim to shed light on the similarities and differences in pedagogical thought units, thereby contributing to the understanding of pedagogical content knowledge in the Iranian context.

Through these strategic approaches, including contextualization within the Iranian EFL

setting, methodological innovations, and addressing gaps in the literature, we aim to establish the distinctiveness of our study and underscore its importance in advancing knowledge and understanding in the field of teacher pedagogical content knowledge. To achieve these objectives, this study aims to answer the following research questions:

1. *What categories of pedagogical knowledge are reported by teachers (novice and experienced)?*

2. *What are the dominant cate*gories of pedagogical knowledge reported by teachers?

3. Method

3.1. Participants

The participants in our study on EFL teacher pedagogical content knowledge in Iran comprised a diverse group of 40 teachers, evenly split between male and female participants. We used convenience sampling to recruit participants. Convenience sampling is a non-probability sampling technique where researchers select participants based on their ease of access and availability. The participants were recruited voluntarily, indicating their interest and commitment to contributing to research on EFL teacher pedagogical content knowledge in Iran. They were not randomly selected but rather self-selected based on their willingness to participate in the study. The participants were categorized into two groups based on their teaching experience: 20 novice teachers and 20 experienced teachers, with the latter having more than four years of teaching experience. According to Gatbonton (1999, 2008), what differentiates experienced from novice teachers is having more than four years of teaching experience. By adopting Gatbonton's criterion, the study aimed to align with established standards in the field and ensure consistency with prior research on teacher experience levels. This approach allowed for a clear delineation between novice teachers, who have less than four years of teaching experience, and experienced teachers, who have surpassed this threshold. Utilizing a standardized cutoff point based on Gatbonton's research not only provided a framework for categorizing participants but also facilitated comparisons with existing literature on the impact of teaching experience on pedagogical practices and decision-making processes among EFL teachers.

The age range of the participants was between 25 and 40 years old, representing early-career and mid-career teachers. They had varying educational backgrounds in English language teaching or related fields and taught at different language institutes across Iran. All participants taught exclusively in English during their classroom sessions, covering all language skills in their syllabi. The teachers voluntarily agreed to participate in the study, demonstrating their interest and commitment to contributing to research on EFL teacher

pedagogical content knowledge in Iran.

In terms of educational background, the participants held degrees in English language teaching, applied linguistics, or related fields. Some had obtained their qualifications from local universities in Iran, while others had pursued their studies abroad. This diversity in educational backgrounds brought a range of perspectives and approaches to language teaching to the study.

The participants taught at various language institutes and schools across different regions of Iran, representing a broad spectrum of teaching contexts within the Iranian EFL education system. These settings included private language institutes, public schools, and specialized language centers, each with its own unique characteristics and challenges in English language instruction.

All participants demonstrated a high level of proficiency in English, as they conducted their teaching exclusively in English during classroom sessions. This language proficiency is essential for effective communication and instruction in an EFL context, where English is the target language of instruction. Their active engagement and openness to sharing their experiences and practices shed light on the complexities of teaching English as a foreign language in the Iranian educational landscape.

3.2. Framework

In this study, Gatbonton's (2008) framework was adopted. In her study, she presents twenty-one PK categories under which different PTUs can be classified. Table 1 presents some descriptive information regarding the different types of PK categories and their relevant PTUs.

Table 1

Descriptive information about PK categories and their relevant PTUs

PK Categories	Relevant PTUs
Affective	PTs regarding the teachers' feelings about their students, and their concern with making the students feel comfortable, interested, relaxed, and motivated.
Aid Comprehension	PTs concerning the ways to improve students' memory, and comprehension.
Beliefs	PTs regarding language, and the way it should be taught.
Comprehension Check	PTs on whether comprehension has occurred on the side of the students.
Content	PTs on the content students should learn or master.
Decisions	PTs concerning the decisions that teachers make at different points in the lesson.
Group Work	PTs on the benefits of group work, and the teacher's role in facilitating group work.
Knowledge of Students	PTs on students' personalities, likes and dislikes, needs, etc.
Language Management	PTs on the language the students received, and the language they produced.
Level Check	PTs on assessment of students' level, and what they could do at this level.
Name Check	PTs concerning remembering students' names.
Note Student Behavior and Reactions	PTs on students' physical behavior, and their reactions toward the teacher, and their peers.
Past Experience	PTs regarding teachers' past experiences, and the rationale behind what they do in the class.
Planning	PTs on how the teaching plans were being carried out.
Probe Prior Knowledge	PTs concerning finding out what the students know.
Problems	PTs on the difficulties the teachers had, or anticipated with the lesson, or the students.
Procedure Check	PTs concerning making sure that the lesson flowed smoothly.
Progress Review	PTs concerning making sure that the students were on task, and showing progress.
Self-Critique	Teachers' PTs on their shortcomings and mistakes.
Self-Know	Teachers' PTs about themselves which were not self-criticizing.
Time Management	PTs on classroom time management.

The rationale behind using Gatbonton's framework was that other studies investigating PK have already used the same framework for exploring teachers' pedagogical thoughts (e.g., Akbari & Dadvand, 2011; Gatbonton, 1999; Karimi & Norouzi, 2019; Mullock, 2006). Although the stimulated recall technique used in these studies has sometimes been criticized for its reliability, it has often been regarded as the go-to method for exploring teachers' pedagogical thoughts and knowledge (Meijer et al., 2002; Ryan & Gass, 2012).

3.3. Data collection and the procedure

The data of this study were collected from the verbal recalls of Iranian EFL teachers. The purpose of the interviews was to identify the components of PK in teachers' activities. To evaluate the teachers' PK, 40 classrooms related to 40 different teachers attended the

teaching procedure, which was observed and recorded (using a video recording device). The researchers were present in the classes and recorded all the sessions. Each class lasted for about 90 min. These video recordings were used during the verbal recalls. Therefore, interviews were conducted after the classes were recorded.

To extract the teachers' PTUs and PK, Gatbonton's framework was employed. Following in the footsteps of other similar studies (e.g., Gatbonton, 1999, 2008; Karimi & Norouzi, 2017, 2019), the present study employed the stimulated recall technique, while resorting to both quantitative and qualitative data analyses. To collect the data, one session of each teacher's lessons was recorded. Then, immediately after the end of the session, the teachers were asked to watch the video recordings of their entire teaching session. While watching the recording, each teacher was asked what he/she was thinking while teaching/presenting a specific activity. The researchers used specific prompts to elicit responses from the participants while they watched the video recordings of their teaching sessions. These prompts aimed to encourage teachers to reflect on their thoughts, decision-making processes, and pedagogical strategies during specific activities. Here are some examples of the types of prompts that may have been used:

> What were you thinking when you introduced the new vocabulary?
>
> Can you recall your thought process when explaining the grammar rule?
>
> How did you decide on the sequencing of activities in this lesson?
>
> Why did you choose to use that particular teaching strategy?

Meanwhile, the teachers' verbal reports and recollections were recorded in an audio recording device and transcribed for further analyses. Finally, novice and experienced teachers were differentiated based on their verbal reports. The differentiation between novice and experienced teachers was primarily grounded in the participants' teaching experience levels, with their verbal reports serving as a means to gather insights into their pedagogical practices, decision-making processes, and reflections on their teaching strategies.

To collect more accurate data, the researchers minimized the time lapse between the end of each session and the interview by holding the interviews right after the end of each class (Gass & Mackey, 2000). In addition, to check the accuracy of the transcripts, the study used member checking (Creswell, 2007). In other words, the participants were asked to cross-check the transcripts for accuracy. In our study on EFL teacher pedagogical content knowledge, data were collected through observation and recording of teaching sessions,

as well as the use of the stimulated recall technique. Video recordings of the teachers' lessons were made, and immediately after each session, the teachers were asked to watch the recordings and provide verbal reports on their thoughts and decision-making processes during specific activities. These verbal reports were then transcribed for analysis.

The data were analyzed using a coding scheme based on Gatbonton's framework of pedagogical knowledge categories. The first step involved identifying and categorizing pedagogical thought units (PTUs) from the teachers' verbal reports. Each PTU was assigned to a specific pedagogical knowledge category based on common themes. Quantitative analysis included calculating the frequency and percentage of each pedagogical knowledge category to determine their prevalence in the teachers' verbal reports. A comparison was also made between novice and experienced teachers to identify differences and similarities in their pedagogical content knowledge.

3.4. Data analysis

The transcripts were analyzed both quantitatively and qualitatively on the basis of the coding scheme presented in Gatbonton's study, and used in other subsequent studies (e.g., Gatbonton, 2008; Karimi & Norouzi, 2017, 2019). The overall aim of the qualitative analysis was to identify the type of PTUs from the teachers' verbal reports, categorize them based on common themes, and extract the major PK categories. On the other hand, the quantitative analysis aimed to show whether the reported PTUs were shared by a single or both groups of teachers by investigating the frequency of occurrence, and the percentage of each set of PTUs in each group of teachers' reports. This would help to obtain more precise results than would be possible through using a single approach. After completing both types of analyses, the novice and experienced teachers' PK categories were compared against each other to gain a better understanding of their similarities and differences.

With regard to the procedure of data categorization and analysis, the first step was classifying the verbal reports and thought units under different PTU labels. That is, the analysts placed the PTUs that had similar themes under a larger PTU set. For example, the pedagogical thoughts dealing with the input and/or output of the students were classified under two parallel PTUs. The definitions of each category were narrowed down to minimize any overlap between the PTUs of each PK category. The similar PTUs then classified under a larger PK category. For example, the different PTUs that dealt with the language the students received and the language they produced were classified under a larger PK category called Language Management (see Table 1).

The qualitative analysis was conducted by a total of four individuals, two researchers, and two research assistants (who were PhD students in the field of Linguistics). The two research assistants helped to improve the reliability of the coding and analysis. In addition, to minimize subjectivity in the coding process and data analysis, each teacher's verbal reports were examined by two individuals; one being a researcher and the other being a consultant (Gass & Mackey, 2000). Moreover, before conducting the qualitative analysis, each of the two researchers and the research assistants worked alone and then in groups to examine the teacher's report (the agreement rate was around 80%) for classifying and categorizing the PTUs and PK categories. Once an agreement was reached, they applied the same procedure to other teachers' transcripts. As stated earlier, every transcript was analyzed by two individuals, a researcher, and a research assistant, separately; then, the two worked together to reach a consensus on the classified categories. Irrelevant thought units were excluded as agreed. Finally, the frequency and percentage of each group of teachers' verbal reports and PK categories were obtained and used to compare the novice and experienced teachers.

4. Results

The examples provided in Table 2 reveal the thought processes and considerations that educators make when planning and implementing their teaching practices. This section is divided into two sections that address each research question of the study.

4.1. PK categories reported by the teachers

As Table 2 reveals, all PK categories mentioned by Gatbonton's (2008) framework were reported by the participants of this study. These PK categories underlie the teachers' thought processes in the class. Table 2 provides examples of the teachers' verbal reports.

Table 2
Examples of pedagogical knowledge reported by EFL teachers

No.	PK Categories	Examples
1	Language Management	I use visual aids such as pictures and charts to support students' understanding of new vocabulary.
2	Procedure Check	Before starting the group work activity, I check if the necessary materials are available for each group.
3	Progress Review	I review the main points from the previous lesson before moving on to the new topic.
4	Beliefs	I believe that building a positive rapport with my students is essential for creating a supportive and engaging learning environment.
5	Knowledge of Students	Based on their learning styles, I provide hands-on activities for the kinesthetic learners in the class.
6	Affective	I incorporate praise and encouragement to boost students' confidence and motivation during the speaking activity.
7	Decisions	I have decided to assign a research project to the students to promote independent learning and critical thinking skills.
8	Note Behavior	I noticed some students whispering during the listening activity, so I reminded them of the importance of listening attentively.
9	Self-Critique	After the lesson, I reflect on my use of instructional strategies and consider alternative approaches for future lessons.
10	Comprehension	I ask comprehension questions throughout the reading activity to ensure that the students understand the text.
11	Self-Reflection	I reflect on my teaching methods and assess their effectiveness in meeting the students' learning needs.
12	Past Experience	Based on my past experience, using real-life examples and anecdotes can make the lesson more relatable and engaging.
13	Time Check	I set a timer for each activity to ensure that we stay on track and cover all the planned material within the lesson time.
14	Problem Check	Some students are struggling with writing coherent paragraphs; therefore, I provide additional guidance and practice exercises.
15	Content	Today's lesson focuses on introducing different types of pronouns and their usage in sentences.
16	Comprehensibility	I simplify complex grammar rules by breaking them down into smaller, more understandable chunks.
17	Group Work	In this activity, students work in pairs to create a dialog using the vocabulary words learned.
18	Level Check	I administer a short placement test at the beginning of the course to assess the students' language proficiency levels.
19	Name Check	I use name tags or seating charts to help me remember the names of all students in the class.

| 20 | Planned Acts | I have planned a role-play activity to simulate a job interview scenario, allowing students to practice their speaking and communication skills. |
| 21 | Probe Knowledge | I ask open-ended questions to encourage students to think critically and share their knowledge and insights on the topic. |

Table 2 is important in the context of the study on enhancing pedagogical practices among Iranian EFL teachers because it presents key findings related to the pedagogical content knowledge categories identified from the verbal reports of the participants. Table 2 serves as a valuable tool for researchers and educators to understand how teaching experience influences the types of pedagogical knowledge emphasized by teachers. It provides insights into the cognitive processes and decision-making strategies employed by novice and experienced teachers, offering a nuanced understanding of how experience shapes pedagogical practices in the EFL context.

4.2. Frequencies and the dominant PK categories in each group of participants

The second research question aimed to investigate the dominant PK categories reported by each group of teachers and how frequently each PK category appeared in their verbal reports. To achieve this aim, the first and second columns in Table 3 show the types of PK categories, frequency of occurrence, and percentage of these categories in the novice and experienced teachers' reports, respectively. Accordingly, the overall number of reported PTUs in the novice teachers' verbal reports was 144. Among the 21 PK categories reported in Gatbonton's (1999) study, the novice teachers' PTUs covered only 18 of those categories, and their reports lacked any reference to the categories of Self-Critique, Level Check, and Probe Knowledge.

Based on Table 3, the most frequently reported PK categories in the novice teachers' reports were Procedure Check (N = 25), Language Management (N = 21), Note Behavior (N = 17), Progress Review (N = 13), Knowledge of Students (N = 11), and Affective (N = 10), respectively (see Figure 1). It is worth noting that the dominant PK categories in this group accounted for 67.33% of the overall PTUs. In contrast, the overall number of reported PTUs in the experienced teachers' verbal reports was 163. In addition, the experienced teachers' reports covered 19 out of 21 PK categories, while lacking any references to the categories of Problem Check, and Name Check. The most frequent PK categories derived from the experienced teachers' reports were Language Management (N = 31), Procedure Check (N = 22), Progress Review (N = 18), Beliefs (N = 16), Decisions (N = 11), and Note Behavior (N = 10), respectively (see Figure 1). The dominant PK categories in this group accounted for 66.22% of the total PTUs.

Table 3

Frequencies and percentages of teachers who reported PTUs

No.	PK Categories	Novice Teachers	Experienced Teachers
1	Language Management	21 (14.58%)	31 (19.01%)
2	Procedure Check	25 (17.36%)	22 (13.49%)
3	Progress Review	13 (9.02%)	18 (11.04%)
4	Beliefs	8 (5.55%)	16 (9.81%)
5	Knowledge of Students	11 (7.63%)	7 (4.29%)
6	Affective	10 (6.94%)	6 (3.67%)
7	Decisions	5 (3.47%)	11 (6.74%)
8	Note Behavior	17 (11.80%)	10 (6.13%)
9	Self-Critique	-	2 (1.22%)
10	Comprehension	7 (4.86%)	5 (3.14%)
11	Self-Reflection	4 (2.77%)	7 (4.29%)
12	Experience	3 (2.08%)	5 (3.06%)
13	Time Check	3 (2.08%)	1 (0.61%)
14	Problem Check	3 (2.08%)	-
15	Content	4 (2.77%)	6 (3.68%)
16	Comprehensibility	3 (2.08%)	7 (4.29%)
17	Group Work	5 (3.47%)	2 (1.22%)
18	Level Check	-	1 (0.61%)
19	Name Check	1 (0.69%)	-
20	Planned Acts	1 (0.69%)	3 (1.84%)
21	Probe Knowledge	-	3 (1.84%)
	Total	144 (99.92%)	163 (99.98%)

Note: Percentages may not add up to 100% due to rounding.

Regarding the similarities between the PK of novice and experienced teachers, the study found that among the six dominant PK categories, only 4 were mutually reported by both groups of teachers. These categories were Language Management, Procedure Check, Progress Review, and Note Behavior (see Figure 1). However, the rank ordering of the categories was different. As for the differences, the study found that the number and types of PK categories and their rates of occurrence between the two groups of teachers were different. For example, the overall number of reported PTUs for novice teachers was 144, which was notably lower than that of the experienced teachers standing at 163. Moreover, the PK categories, which were mutually reported by both groups and were dominant in the novice teachers' reports, but considered non-dominant in the experienced teachers' reports, included Knowledge of

Students, Affective, and Note Behavior. In contrast, the PK categories that were dominant in the experienced teachers' reports, but considered non-dominant in the novice teachers' reports included Beliefs and Decisions. Figure 1 compares the six dominant PK categories with the highest frequency in the experienced and novice teachers' reports.
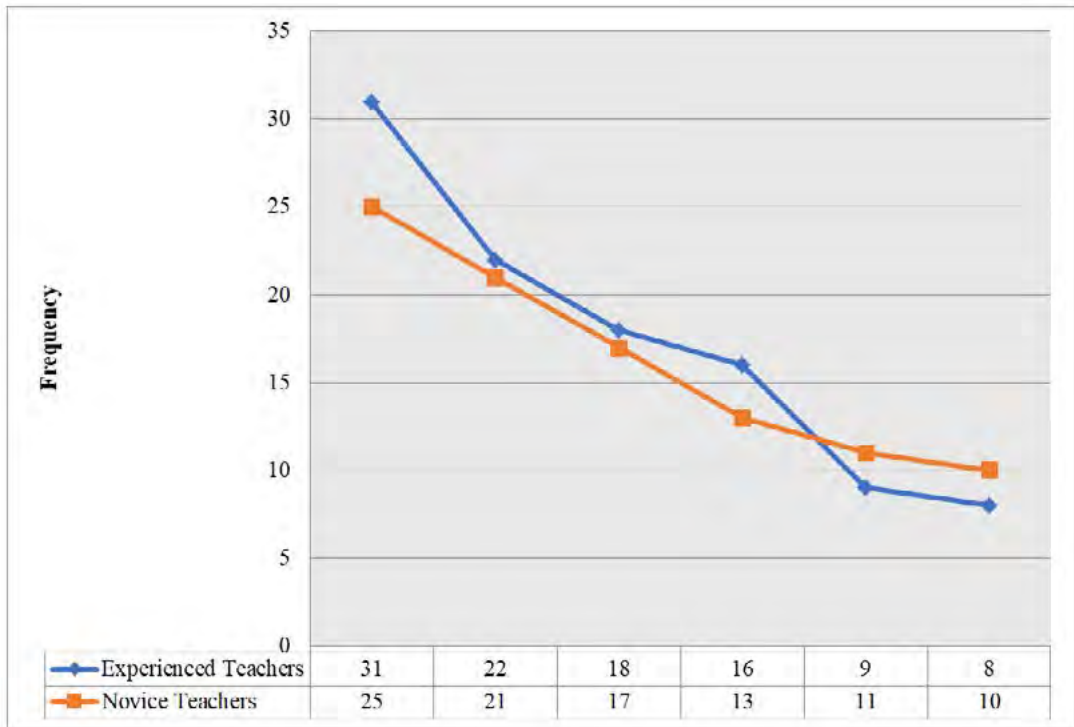

Experienced Teachers	31	22	18	16	9	8
Novice Teachers	25	21	17	13	11	10

Figure 1. *Rank ordering of experienced vs. novice teachers' dominant PK categories*

This study focused on enhancing pedagogical practices among novice and experienced Iranian EFL teachers by analyzing their pedagogical knowledge through verbal reports. Using the stimulated recall technique and a mix of quantitative and qualitative analyses, the research aimed to identify pedagogical knowledge categories, compare differences between novice and experienced teachers, and illuminate teaching practices. The findings highlighted distinct patterns and priorities in teaching approaches, with novice teachers emphasizing Procedure Check, Language Management, and Note Behavior, while experienced teachers focused on Language Management, Beliefs, and Decisions. By applying Gatbonton's framework, this study provided an understanding of EFL teachers' pedagogical knowledge in Iran, helping training programs and professional development to enhance instructional practices and enrich education in Iran and beyond.

5. Discussion

The study's exploration of differences in the ranking of categories related to student difficulties and progress review between novice and experienced teachers offers a fresh perspective. These findings underscore how teachers' concerns and priorities may evolve with experience, providing an understanding of the dynamic nature of pedagogical knowledge development in the EFL context. The study's finding that more experienced teachers pay less attention to ensuring smooth classroom activities contradicts expectations from previous studies (e.g., Gatbonton, 1999; 2008). This insight indicates that as teachers gain experience, they may redirect their attention from procedural aspects toward other teaching facets, revealing how experience influences pedagogical practices.

In recent years, a growing number of studies have focused on investigating teachers' thinking processes from various angles, especially in the EFL setting, where teachers play the most crucial role in language teaching. To add to this developing body of knowledge, the present study aimed to explore the thought patterns of a group of novice and experienced teachers in an EFL setting, and more specifically, in the Iranian context. The lower number of PTUs reported by novice teachers, with less than two years of teaching experience, is supported by other studies indicating that novices have less to say about their teaching practices (e.g., Akbari & Tajik, 2009; Karimi & Norouzi, 2019). In contrast, the higher number of PTUs reported by experienced teachers may suggest that pedagogical thoughts are developed over time (Borg, 2005), and experience has a role in shaping these thoughts (Borg, 2003; Kubanyiova & Feryok, 2015).

The observed increase in the number of PTUs highlights the significant role that experience, especially in the early years of teaching, plays in shaping teachers' pedagogical thinking (Oleson & Hora, 2014). Teaching, in the early years, is a form of careful practice (Ericsson et al., 1993); and it is a leading cause for expert-level performance. This claim is based on the fact that during this period, novice teachers' performance continuously undergoes critical evaluation, alongside constructive criticism, and informative feedback by the institutes' supervisors, and managers, as well as by their peers. In this study, all experienced teachers had more than five years of teaching experience, which could support the findings of previous studies indicating that experience may have a positive impact on teachers' pedagogical thinking for a period extending to about 10 years (e.g., Karimi & Norouzi, 2019). Additionally, the increase in the number of PTUs across the two groups of novice and experienced teachers supports the findings of other studies with similar ranges of experience

(e.g., Akbari & Tajik, 2009; Karimi & Norouzi, 2017, 2019), revealing that in comparison to novice teachers, the more experienced teachers can better access the thoughts underlying their teaching practices. That said, the study's findings challenge the conventional belief that Language Management is always a top priority for EFL teachers. While some studies (Gatbonton, 1999; Karimi & Norouzi, 2017) have reported Language Management as a high-ranking category, this study found variations in its importance between novice and experienced teachers. For instance, "Language Management" ranked differently in the reports of novice and experienced teachers, which may indicate a shift in focus as teachers gain more experience. On the other hand, however, it could be simply a consequence of the particular makeup up of the students in the classes that were involved in the data collection.

Another notable finding was the higher percentage of PTUs forming the dominant categories in the novice teachers' reports (67.33%), compared to the experienced teachers (66.22%), which, in the words of Karimi and Norouzi (2019), may be because "as teachers gain more experience, they may use more complex but fewer units to express their pedagogical thinking" (p. 12). The second interpretation may be that as time passes, teachers' thinking process also changes, and the positive effect of experience may not necessarily be linear (Feryok, 2010), and it might even degrade after a certain period. Aside from the overall number of PTUs, a comparison across the two groups of teachers also shows an interesting pattern for some dominant PK categories. These categories include: Language Management, Procedure Check, Progress Review, Beliefs, Knowledge of Students, Affective, Decisions, and Note Behavior. Nonetheless, the study revealed discrepancies in the ranking of certain categories between novice and experienced teachers, such as "Procedure Check." This highlights how the priorities and focus areas of teachers may shift with experience, challenging the notion of a linear progression in pedagogical thoughts and priorities over time (cf. Gatbonton, 2008).

One particular pattern found in the current study was that four of the dominant PK categories— i.e., Language Management, Procedure Check, Progress review, and Note Behavior— were shared amongst both groups of teachers, although the rank ordering, frequencies, and percentages of these groups were different. This similarity in pedagogical concerns, as Gatbonton (2008) argues, may be because novice teachers have acquired or may be "in the process of acquiring many skills expected of experienced teachers" (p. 173). Similarly, Akbari and Dadvand (2011) argue that similarity in the dominant categories may be the result of a common ground of pedagogical concerns between EFL teachers. This similarity may also be due to the common culture of teaching, suggesting that teachers may have been taught to have similar educational concerns (Macaro et al., 2020). In the case of

this study, all participating teachers had passed a teacher training course in their affiliate language institutes, which might contribute to this similarity.

In an attempt to cross-validate the results of this study, the findings were also compared with other similar studies investigating teachers' PK in the EFL setting. In this study, "Language Management" ranked second in the novice teachers' reports (N=21) and first in the experienced teachers' reports (N=31). In other words, the study found that compared to the experienced teachers, the novice teachers were more concerned with the language students were exposed to and the language they produced. This difference in ranking contradicts our expectations since other studies in the EFL context reported Language Management to have the highest ranking among all groups of teachers (e.g., Akbari & Dadvand, 2011; Karimi & Norouzi, 2019). This finding is also contrary to the common belief that language teachers' first concern "is to pay explicit attention to language items (and skills) and to provide opportunities for comprehensible input and output" (Mullock, 2006, p. 56).

The next finding was the difference in the ranking of "Procedure Check" in the novice teachers' reports (N=25, ranked 1st) with that of the experienced teachers (N=22, ranked 2nd). This shows that as teachers gain more experience, they pay less attention to employing measures to ensure that the lesson flows smoothly from beginning to end. This outcome was in line with our expectations and supports the findings of other similar studies (e.g., Karimi & Norouzi, 2019) indicating that the more experienced teachers paid less attention to ensuring that the classroom activities proceeded smoothly. One interpretation for this lack of attention, as Karimi & Norouzi (2019) argue, might be that as teachers gain more experience, they become less concerned with classroom procedures, and shift their attention to other matters. Nevertheless, having been reported in the dominant list of both groups of teachers first and second, respectively, the insignificant difference implies that checking classroom procedures is a top priority in the pedagogical repertoire of EFL teachers.

As for the "Note Behavior" category, which consists of teachers' thoughts about their students' behaviors and reactions, the difference in the ranking between the novice teachers' reports (N=17, ranked 3rd) and the experienced teachers' reports (N=10, ranked 6th) indicates that the first years of teaching have a significant impact on shaping the teachers' pedagogical thoughts regarding noting students' physical behavior in class, and their reactions toward the teacher, their peers, and the tasks assigned to them. This finding agrees with the results of other similar studies (e.g., Gatbonton, 2008; Karimi & Norouzi, 2019), which reveal that novice teachers are more concerned with establishing a teacher-student rapport, and care too much about students' reactions. Additionally, similar to other studies (Akbari & Dadvand,

2011; Akbari & Tajik, 2009; Mullock, 2006), this category was found to be dominant in the reports of all groups of teachers.

Another interesting finding was "Progress Review" which was common among both groups of teachers. A comparison of this category in the novice teachers' reports (N=13, ranked 4th) against the experienced teachers' reports (N=18, ranked 3rd) reveals that more experienced teachers are more concerned with students' difficulties than novice teachers. This outcome agreed with only one other relevant study in the EFL context (Karimi and Norouzi, 2019). However, it was not reported as a dominant category in other studies in the ESL or EFL contexts (e.g., Akbari & Dadvand, 2011; Gatbonton, 2008; Mullock, 2006). One interpretation of this difference could be related to Iranian language institutes' policies, which required teachers to ensure that students are on task and are making progress. This shows that as teachers gain more experience, they tend to follow the rules of their affiliated institutes more obediently (Karimi & Norouzi, 2019).

Having discussed the shared dominant PK categories, we shall now explain the PK categories that were dominant in the reports of only novice or experienced teachers. The first of such PK categories was "Knowledge of Students," referring to teachers' knowledge of their students' traits and characteristics. This was among the dominant PK categories of novice teachers (N=11, ranked 5th); however, it was absent in the list of the dominant PKs of experienced teachers (N= 7). The dominance of this category in the novice teachers' reports was in line with our expectations and supported the findings of other similar studies (e.g., Akbari & Tajik, 2009; Gatbonton, 2008; Karimi & Norouzi, 2019), which argued that novice teachers, usually in their first five years of teaching, tend to get to know their students and develop awareness of their characteristics such as likes and dislikes, beliefs, and cultural background. However, as teachers develop more experience, they show less tendency to get to know their students.

The next PK category, "Affective"— consisting of comments on how the teachers felt about their students and class, as well as their concerns with making the students feel comfortable, relaxed, interested, and motivated— appears in the list of the dominant PK categories of only the novice teachers (N=10, ranked 6th), but not the experienced ones (N=6). This may be because teachers, in their early years of teaching, tend to be more concerned with their self-image; thus, they are more likely to think about interpersonal relationships (Fuller, 1969). However, the study shows that this fixation on one's self-image, self-adequacy, and evaluation of oneself based on students' gains and opinions, eventually fades over time. The absence of this PK category in the experienced teachers' list of dominant categories supports this claim. Another interpretation for the early concern with affective thoughts,

as Cushing (2021) argues, may be due to policies imposed by private language institutes, which place great emphasis on keeping students satisfied. As a result, in the early years of teaching, teachers tend to keep their students satisfied to secure their positions and jobs. As time passes, however, the teachers feel more confident that they have secured their spot, and these concerns are replaced by other ones.

As for the categories that were dominant in the PTUs of only experienced teachers, one can enlist "Decisions" and "Beliefs." With regard to the "Decisions" category, the difference in the reports of the novice teachers (N=5), as opposed to the experienced teachers (N=10, ranked 5th), shows that experience contributes positively to the number of decisions that teachers make throughout the lesson. Interestingly, this category was not a part of the dominant list in any other studies in the EFL context, making it against expectations. This difference may be interpreted because of differences in the policies of language institutes. In other words, the language institutes in our study encouraged teachers to make their own educational decisions fit their teaching styles, and students' needs. Given that the experienced teachers were more capable of drawing upon their previous experience to make more educated decisions, this category appeared in their dominance PK list.

Finally, the study found the category of "Beliefs" to be in the dominant list of only experienced teachers (N=16, ranked 4th), but not the novice ones (N=8). This difference indicates that as teachers gain more experience, their pedagogical thoughts tend to revolve more around beliefs and values. This finding agrees with the assumption that teachers' classroom activities are shaped by the attitudes, beliefs, knowledge, and values that every teacher accumulates throughout the years as a student or teacher (Borg, 2003; Gao & Cui, 2022; Gatbonton, 1999; Zarrinabadi & Afsharmehr, 2022). This finding, however, is not supported by other relevant studies in the EFL context (e.g., Karimi & Norouzi, 2019), as none have found it to be a dominant category for experienced teachers.

Comparing the results of the present study with those of other similar studies in the EFL context indicates that teachers' PK, and priorities, in the EFL context may be similar to each other, with only a slight difference due to the imposed educational policies, study settings, and teachers' traits and characteristics. This study highlights how several years of experience, especially the first five years, could increase, and change, the pedagogical thoughts of EFL teachers within the Iranian context. Likewise, it could be implied from the results of the study that early years of teaching experience play a crucial role in novice teachers achieving pedagogical expertise. Another way to acquire this expertise in the EFL context is to have experienced teachers pass on their PK to novice teachers, through teacher

education programs (Kartchava et al., 2020). The study also indicates that having novice teachers observe various experienced teachers' classes would build the required PK. These initiatives eventually helped novice teachers to accumulate various types of experience (Klein & Hoffman, 1993).

This study investigated pedagogical knowledge by examining the differences in priorities between novice and experienced teachers. For instance, while Language Management emerged as a key category for both groups, its ranking varied, indicating a shift in focus with experience. The identification of "Beliefs" as a dominant category for experienced teachers highlights the importance of personal convictions in shaping pedagogical practices. Additionally, the study's exploration of categories such as Procedure Check and Student Difficulties reveals the dynamic nature of teachers' concerns and priorities, challenging traditional views on the linear progression of pedagogical thoughts over time. These findings offer a fresh perspective on how experience influences pedagogical knowledge development and provide insights for enhancing teacher training programs and improving the quality of EFL instruction in Iran and beyond.

6. Conclusion

This study sheds light on the PK of novice and experienced EFL teachers in Iran. By analyzing their verbal reports using the stimulated recall technique, the study identified the teachers' pedagogical thoughts inferred from their reports and compared the differences between the two groups of teachers. The last decade has witnessed a growing interest in investigating teachers' PK, both in ESL and EFL settings. This study builds upon this growing body of knowledge to determine how experience impacts the pedagogical thoughts of EFL teachers. The results of the study showed how teachers' thoughts and pedagogical priorities changed over time. The findings of the study support the notion that experience plays a critical role in shaping teachers' pedagogical thoughts (Borg, 2003) and that these changes may not be necessarily linear (Feryok, 2010), since teachers' pedagogical priorities and thoughts change over time.

These findings have important implications for teacher training and professional development. For novice teachers, the emphasis on specific PK categories such as "Procedure Check" and "Language Management" indicates a need for targeted training in lesson planning, instructional strategies, and language use. Training programs could also address the importance of reflecting on and managing students' behavior and emotional engagement. For experienced teachers, the focus on categories like "Beliefs" and "Decisions" indicates the significance of addressing their pedagogical beliefs and decision-making processes.

Professional development opportunities could explore strategies for critically reflecting on and refining their beliefs, and enhancing their ability to make informed instructional decisions.

This study has several limitations. While the study employed a combination of quantitative and qualitative analyses, the reliance on verbal reports and the stimulated recall technique may introduce biases or limitations in capturing the full spectrum of teachers' pedagogical knowledge and practices. Also, the categorization of teachers into novice and experienced groups based solely on years of experience may oversimplify the complexity of teaching expertise. Other factors, such as professional development opportunities or educational background, could influence pedagogical practices.

The study highlights the importance of ongoing professional development for both novice and experienced teachers. Training programs could be designed to address the specific needs identified in this study, providing opportunities for teachers to enhance their PK and instructional practices. Furthermore, the findings contribute to a broader understanding of EFL teachers' PK in the Iranian context. They reveal specific areas of strength and areas for improvement in EFL instruction, which can inform curriculum development and policy decisions in the field of English language education. In conclusion, this study underscores the value of understanding and enhancing teachers' PK. By identifying the specific PK categories on which novice and experienced EFL teachers focus, this research contributes to teacher training and professional development programs, ultimately aiming to improve the quality of EFL instruction in Iran and beyond.

References

Akbari, R., & Dadvand, B. (2011). Does formal teacher education make a difference? A comparison of pedagogical thought units of BA versus MA teachers. *The Modern Language Journal, 95*(1), 44–60.

Akbari, R., & Dadvand B. (2014). Pedagogical knowledge base: A conceptual framework for teacher admission. *System, 42*(1), 12–22.

Akbari, R., & Tajik, L. (2009). Teachers' pedagogic knowledge base: A comparison between experienced and less experienced practitioners. *Australian Journal of Teacher Education* (Online), 34(6), 52–73.

Atai, M. R., & Shafiee, Z. (2017). Pedagogical knowledge base underlying EFL teachers' provision of oral corrective feedback in grammar instruction. *Teacher Development, 21*(4), 580–596.

Bereiter, C., & Scardamalia, M. (1993). *Surpassing ourselves. An inquiry into the nature and implications of expertise*. Open Court.

Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching, 36*(2), 81–109.

Borg, S. (2005). Teacher cognition in language teaching. In K. Johnson (Ed.), *Expertise in second language learning and teaching*, (pp. 190–209). Palgrave Macmillan.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five traditions* (2nd ed.). Sage.

Cushing, I. (2021). "Say it like the Queen': the standard language ideology and language policy making in English primary schools. *Language, Culture and Curriculum, 34*(3), 321–336.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*(3), 363–406.

Estaji, M., & Jahanshiri, Z. (2022). Comparing native and non-native English teachers' pedagogical knowledge in an English as an international language context. *International Journal of Society, Culture & Language, 10*(1), 15–29.

Feryok, A. (2010). Language teacher cognitions: Complex dynamic systems?. *System, 38*(2), 272–279.

Freeman, D. (2002). The hidden side of the work: Teacher knowledge and learning to teach. A perspective from North American educational research on teacher education in English language teaching. *Language Teaching, 35*(1), 1–13.

Fuller, F. F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal, 6*(2), 207–226.

Gao, Y., & Cui, Y. (2022). English as a foreign language teachers' pedagogical beliefs about teacher roles and their agentic actions amid and after COVID-19: A case study. *RELC Journal*, 1–17. https://doi.org/10.1177/00336882221074110

Gass, S. M., & Mackey, A. (2000). *Stimulated recall methodology in second language research*. Lawrence Erlbaum Associates.

Gatbonton, E. (1999). Investigating experienced ESL teachers' pedagogical knowledge. *The Modern Language Journal, 83*(1), 35–50.

Gatbonton, E. (2008). Looking beyond teachers' classroom behaviour: Novice and experienced ESL teachers' pedagogical knowledge. *Language Teaching Research, 12*(2), 161–182.

Hosseini, E. Z., Nasri, M., & Afghari, A. (2017). Looking beyond teachers' classroom behavior: Novice and experienced EFL teachers' practice of pedagogical knowledge to improve learners' motivational strategies. *Journal of Applied Linguistics and Language Research, 4*(8), 183–200.

Karimi, M. N. (2011). Variations in EFL teachers' pedagogical knowledge base as a function of their teaching license status. *The Journal of Teaching Language Skills (JTLS), 3*(1), 83–114.

Karimi, M. N., & Norouzi, M. (2017). Scaffolding teacher cognition: Changes in novice L2 teachers' pedagogical knowledge base through expert mentoring initiatives. *System, 65*(1), 38–48.

Karimi, M. N., & Norouzi, M. (2019). "Cognitive aging" in teachers: L2 teachers' cognitive performance across various stages in their teaching career. *Innovation in Language Learning and Teaching, 13*(4), 371–388.

Kartchava, E., Gatbonton, E., Ammar, A., & Trofimovich, P. (2020). Oral corrective feedback: Pre-service English as a second language teachers' beliefs and practices. *Language Teaching Research, 24*(2), 220–249.

Klein, G. A., & Hoffman R. R. (1993). Seeing the invisible: Perceptual-cognitive aspects of expertise. In M. Rabinowitz (Ed.), *Cognitive science foundations of instruction* (pp. 203–226). Erlbaum.

König, J., Lammerding, S., Nold, G., Rohde, A., Strauß, S., & Tachtsoglou, S. (2016). Teachers' professional knowledge for teaching English as a foreign language: Assessing the outcomes of teacher education. *Journal of Teacher Education, 67*(4), 320–337.

Kubanyiova, M., & Feryok, A. (2015). Language teacher cognition in applied linguistics research: Revisiting the territory, redrawing the boundaries, reclaiming the relevance. *The Modern Language Journal, 99*(3), 435–449.

Macaro, E., Akincioglu, M., & Han, S. (2020). English medium instruction in higher education: Teacher perspectives on professional development and certification. *International Journal of Applied Linguistics, 30*(1), 144–157.

Meijer P., Beijaard, D. & Verloop, N. (2002). Examining teachers' interactive cognitions using insights from research on teachers' practical knowledge. In C. Sugrue & C. Day (Eds.), *Developing teachers and teaching practice* (pp. 162–178). Routledge.

Moradkhani, S., & Rahimi, M. (2020). The impact of students' English proficiency level and teacher education on L2 teachers' pedagogical knowledge: A mixed-methods study. *TESOL Journal, 11*(2), 1–15.

Mullock, B. (2006). The pedagogical knowledge base of four TESOL teachers. *The Modern Language Journal, 90*(1), 48–66.

Oleson, A., & Hora, M. T. (2014). Teaching the way they were taught? Revisiting the sources of teaching knowledge and the role of prior experience in shaping faculty teaching practices. *Higher Education, 68*, 29–45.

Ryan, J. & Gass, S. (2012). Stimulated recall. In R. Barnard & A. Burns (Eds.), *Researching language teacher cognition and practice: International case studies* (pp. 144–154). Multilingual Matters.

Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*(1), 1–23.

Zarrinabadi, N., & Afsharmehr, E. (2022). Teachers' mindsets about L2 learning: Exploring the influences on pedagogical practices. *RELC Journal*, 1–15. https://doi.org/10.1177/00336882211067049