

Uncovering Domains of Novice Language Teachers' Professional Decision Making and Pedagogical Reasoning

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Abstract

Decision-making and pedagogical reasoning constitute the foundation of teacher professional practice. This qualitative study was conducted to explore novice Iranian EFL teachers' professional decision-making and pedagogical reasoning in the three domains of (1) planning and preparation, (2) classroom management, and (3) professional responsibilities during the three phases of pre-active, interactive, and post-active teaching. Data from two sources including scenarios and audio journals revealed five novice teachers' decisions in each domain and their relevant reasoning. Decisions in the first domain were discovered to embody teachers' choices about materials, teaching methods, and assessment. In the second domain, teachers' decisions were focused on management, flexibility, and accountability. In the third domain, their decisions were aimed at professional interaction and professional development. Moreover, a new decision domain, 'dispositions', was discovered, which comprised novice teachers' choice of ethical conduct, care, and accountability. This led to the introduction of a new phase of teaching, beyond-active, which greatly influenced all other decision domains and teaching phases. Additionally, novice teachers' pedagogical reasoning was uncovered to stem from their knowledge, skills, and personality attributes. These findings suggest that knowledge about teachers' decisions and underlying reasoning provides insights into the scope of their professional knowledge and practice.

Keywords: Teacher professional practice, Novice teachers, Pedagogical reasoning, Decision-making

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INTRODUCTION

Decision-making in professional contexts can be considered one of the most important competencies of a teacher. This competency has been addressed under different names with some conceptual variations. Wermke, Ricka, and Salokangas (2018) referred to it as “teacher autonomy,” Demirkasimoglu (2010) considered it ‘teacher professionalism,’ and Yu-hong, Qian, Xiaofang, and Wei (2013) termed it “teachers’ practical knowledge (TPK).” All these terms represent the professional practice of a teacher, focusing on its complexity and scope which, according to Demirkasimoglu (2010) and Derakhshan, Coombe, Arabmofrad, and Taghizadeh (2020), has dynamic characteristics affected by the political and social changes that bring about a shift in the meaning and status of teaching. Danielson (2013) outlined the scope of this professional practice or competency in a framework mainly for the purpose of evaluating teachers. Her framework was derived from the National Board for Professional Teaching Standards (NBPTS) and was supported by empirical studies. She divided the complicated practice of teaching into twenty-two components grouped into four domains of teaching responsibility: (1) planning and preparation, (2) the classroom environment, (3) instruction, and (4) professional responsibilities. This indicates that teachers need to make decisions in all the domains of their teaching practice categorized by Danielson.

Domains of teachers’ professional decision-making have been the focus of a number of studies. Fuller (2016) categorized teachers’ decisions into three domains, namely, planning, implementing, and assessing. This categorization was based on decisions made before actual instruction (planning), during instruction (implementing), and after instruction (assessing). Planning and implementing, as Jackson (1968, as cited in Tsui, 2003) argued, refer to pre-active and interactive phases of teaching, respectively. Schön (1987) proposed the same phases for teachers’ problem solving and decision-making. Some other researchers have also addressed these different phases and domains in their studies. For instance, many

studies have addressed teachers' management skills especially classroom management, i.e., decisions made mainly during instruction or the interactive phase (e.g., Aho, Haverinen, Juusob, Laukkac, & Sutinen, 2010; Asghari, Alemi, & Tajeddin, 2021; Khatib & Saeedian, 2021; Moghadam & Mehrpour, 2017; Phillips, Kovanović, Mitchell, & Gašević, 2019; Phillips, Siebert-Evenstone, Kessler, Gasevic, & Shaffer, 2021; Trevisan, Phillips, & De Rossi, 2021). The emphasis of many of these studies has been on experienced or expert teachers. Others have compared novice and expert teachers. The current study, however, aims to identify domains of novice EFL teachers' decision-making and their pedagogical reasoning at the start of their teaching careers.

LITERATURE REVIEW

Research on teachers' pedagogical reasoning exists across a range of teaching and learning contexts (Asghari, Alemi, & Tajeddin, 2021; Blackley, Redmond, & Peel, 2021; Cunningham, 2007; Khatib & Saeedian, 2021; Loughran, 2019; Mansfield & Loughran, 2018; Risko, 2009; Starkey, 2010; Zangori, Forbes, & Biggers, 2013). Some of these studies reflect Shulman's (1987) model in dealing with the notion of pedagogical reasoning, whereas others suggest adjustments to the model to concentrate on changes in the perceptions of teaching and learning that have taken place over time. For instance, Starkey (2010) modified Shulman's model by adding subcategories to the model and changing some of its elements to adapt it to various contexts. Shulman's model includes the following components: comprehension; transformation (preparation, representation, selection, and adaptation and tailoring to student characteristics); instruction; evaluation; reflection; and new comprehensions.

Starkey (2010) added subcategories to the components presented by Shulman (1987). For instance, the following two subcategories were added to comprehension: (1) substantive and syntactic knowledge, and (2) selecting appropriate resources and methods to enable students to make

connections between prior knowledge and developing subject knowledge. Three subcategories were added to preparation: (1) transforming existing knowledge into teachable content, enabling opportunities for students to create, critique, and share knowledge, (2) enabling connections between groups and individuals to develop knowledge of the subject, and (3) adaptation and tailoring (personalizing) learning for the students being taught. Two subcategories were added to instruction: (1) formative and summative evaluation of student learning with feedback to the students (from a variety of sources), and (2) modifications of the teaching process where appropriate. One subcategory was added to reflection, namely reviewing and critically analyzing teaching decisions based on evidence. Finally, the subcategory of new comprehension of the subject, students, and teaching was added to new comprehensions in Shulman's model. This modification was made to account for the distinction between beginning and experienced teachers. Emphasizing the need for adapting the model, Starkey (2010) stated:

The two major differences between the original developed by Shulman in 1987 and [the modified model] are the change from transformation to enabling connections and the integration of evaluation and instruction into one teaching and learning aspect. [...] Both models assume that the students will construct an understanding of the content through a variety of pedagogical approaches to build on their existing knowledge, [...]. (p. 242)

The application and adaptation of Shulman's (1987) model have also been the focus of several empirical studies on the domains of teacher decision making and pedagogical reasoning. For instance, in their recent attempt to explore the connections between teachers' knowledge and decisions in their lesson plans, Phillips, Kovanović, Mitchell, and Gašević (2019) came up with six codes showing six domains of teacher knowledge, including content knowledge, general pedagogical knowledge, knowledge of learners, knowledge of educational contexts, knowledge of educational ends, and

pedagogical content knowledge, all corroborating Shulman's (1987) original model. Further, they found four additional codes that were not explicitly addressed by Shulman (1987) but emerged over three decades of theoretical development since Shulman's first publication. According to Phillips et al. (2019), "the codes were big ideas, promoting quality learning and engagement, nature of the domain, tactical and strategic thinking, and TPACK" (p. 4).

Earlier, Shulman's (1987) model had also been adopted by Richards, Li, and Tang (1995), who compared pedagogical reasoning in novice English language teachers with that of experienced teachers, exploring the role of experience and subject matter knowledge in teachers' pedagogical reasoning. They found major differences between the two groups, in particular, in how the novice and experienced teachers planned a reading lesson and how teachers, trained and experienced in literature and teaching it, practiced the use of literary texts in English language teaching. The findings demonstrated that in planning the lessons, teachers were actively engaged in Shulman's guiding elements of comprehension, selection, adaptation, and representation as they "transform teaching artifacts such as texts and novels, into effective mediums for learning" (p. 21).

While a number of studies in teacher decision making and reasoning are exploratory in nature, as presented above, there are some others which focused on one or more specific features or domains emerging from exploratory studies or theoretical groundwork. For instance, TPK formed Tsang's (2004) drive for conducting a study that aimed to investigate the influence of TPK on English language teachers' decision making. The analysis of teachers' lesson plans and journals enriched with video-recorded and interview data led Tsang to conclude that participants had restricted access to their personal practical knowledge during classroom teaching. However, as Tang argued, in post-active decisions this knowledge played an important part and helped teachers evaluate new maxims of teaching. In Tsang's view, TPK is "open and developing rather than stable and exhaustible" (p. 194).

Classroom management, as another specific domain signifying the reason why teachers act and make decisions in a particular way when they are confronted with disturbance, was investigated by Aho, Haverinen, Juusob, Laukkac, and Sutinen (2010) in a case study on primary school teachers. In addition to corroborating features such as knowledge of students, personality, and emotional state, the importance of social and contextual features, particularly the school's operational environment and social contexts, was also raised by Aho et al. A few years later, a study by Wermke, Ricka, and Salokangas (2018) provided empirical evidence in support of the important role of these social-contextual features in teachers' decision-making acts. Comparing German and Swedish teachers' perspectives in their national contexts of the profession to find out teachers' freedom/autonomy in decision-making, Wermke et al. acknowledged the undeniable role of educational, social, developmental, and administrative features in teachers' reasoning and decision domains.

PURPOSE OF THE STUDY

Based on the existing research on pedagogical reasoning and decision-making, as sketched above, the process can be evidently assumed as a key to teaching practice, having dynamic characteristics affected by social, educational and, as raised by Demirkasimoglu (2010), political contexts. The available evidence demonstrates the importance of the process, particularly for novice teachers who need to learn how to make efficient use of their knowledge in making decisions on particular actions or novel problems in their teaching practice. By prioritizing this, the present study aimed (a) to identify domains of novice language teachers' decisions, and (b) to explore the reasoning for the decisions they made in high school classroom contexts where they were professionally involved in their first teaching practices. The present study was then organized around the following question:

1. What are the domains of high school novice EFL teachers' decision-

making and pedagogical reasoning in pre-active, interactive, and post-active phases of teaching?

METHOD

Participants

Participants in this study included five female high school EFL teachers. They were novices and had just started their jobs at secondary schools for girls, teaching English in grades 7, 8, and 9 at a junior high school in Iran. Their ages ranged from 22 to 24, and they had just completed their four-year study at a teacher education university where they had earned a BA degree in TEFL. This selection was purposeful as the novice teachers were officially employed by the Ministry of Education (MOE) to work in different districts of Tehran, the capital city of Iran. These municipal districts in the city have a variety of populations, facilities, cultures, norms of living, and the financial status of people, which affect the context of the school community. Therefore, teaching in different districts of the city varies a great deal and requires mixed teacher proficiency and competency. Thus, the cases were purposefully selected based on the variety of districts they worked. For ethical concerns, the participants consented to remain anonymous and thus their pseudonyms are used here. Table 1 presents the demographic characteristics of the participants (pseudonyms are used to refer to the participants).

Table 1: Teachers' Demographic Information

Name	Gender	Age	Field of study	Degree	Grades of practice
Atie	F	22	TEFL	B.A.	K7
Mozhi	F	22	TEFL	B.A.	K7 & K9
Yasi	F	23	TEFL	B.A.	K7& K8
Zari	F	24	TEFL	B.A.	K7 & K8
Tahereh	F	23	TEFL	B.A.	K8 & K9

Note: F=female; TEFL: teaching English as a foreign language;

B.A. =bachelor of arts; K=Key stage

Data Collection Sources

Since teaching is a multidimensional profession that involves teachers cognitively, emotionally, and physically (Danielson, 2007), decision making in this profession seems complex and multifarious. This implies that in order to unveil multiple domains of teachers' decisions, multiple data collection sources need to be employed to enhance the credibility and dependability of the data. The present qualitative case study, therefore, used multiple qualitative data sources, namely scenarios and audio journals, to probe into novice teachers' professional decisions and the reasons that underlie their decisions. Following Cohen et al.'s (2018) recommendation to use scenarios and audio journals as means to detect participants' cognitions and perceptions, the two data sources were used to gain insights into novice teachers' experiences and the meaning they make while taking actions. In order to collect undistorted, unbiased, and reliable data, all participants were assured that they were not going to be evaluated or judged by the scenarios or audio journals and that the data would only be used for research purposes.

Scenarios

Scenarios were administered to the teachers to measure their decision-making and pedagogical reasoning for the decisions they needed to make in their professional contexts. There were 10 decision-making and pedagogical reasoning scenarios developed by the authors and used at the beginning of the academic year. In writing these scenarios, practice domains introduced by Danielson (2007, 2013) were utilized and each scenario was written based on one of the domains. The reason for drawing on Danielson's model was the comprehensive domains of the framework that embraced the entire scope of a teacher's job. She classified teaching into four domains, each consisting of numerous components: (a) planning and preparation, (b) classroom environment, (c) instruction, and (d) professional responsibilities. The domain of 'Planning and preparation' includes knowledge of content and pedagogy, knowledge of students, setting instructional outcomes,

knowledge of resources, designing instruction, and designing assessment. 'Classroom environment' embraces the components of creating respect and rapport, establishing a culture for learning, managing classroom procedures, managing student behavior, and organizing physical space. 'Instruction' entails components of communicating with students, using questioning and discussion techniques, engaging students in learning, using assessment in instruction, and demonstrating flexibility and responsiveness. The domain of 'Professional responsibilities' contains reflecting on teaching, maintaining accurate records, communicating with families, participating in a professional community, growing and developing professionally, and showing professionalism. The framework includes everything a teacher does pre-actively, interactively, and post-actively and provided a sound model for scenarios. For instance, scenario 2 addressed Domain 3 (instruction) as follows:

As a high school English teacher, you have planned to teach a new lesson on reading in the textbook but find out that the topic is not tangible for your learners. They do not seem to have enough background knowledge which can cause boredom or demotivation. What will you do? Why? Or Scenario 3 dealt with Domain 4 (Professional Responsibility, Component F: Showing Professionalism- advocacy): An 8th-grade student routinely comes to English class without his/her book or some other required material. This typically happens 2-3 times per month. You as the teacher have given the student detention on multiple occasions, but it has not been effective in correcting the behavior. What do you think you should do? Why?

The scenarios were given to the participants before they started their teaching career at high schools. They were asked to deal with the problem posed in each scenario. The teachers had to write about the decisions they would make in each situation and provide reason(s) for their decisions. They were encouraged to provide sufficient details about their decisions and the

relevant pedagogical reasoning in each scenario; thus, the answer to each yielded two to three paragraphs. The file (Word format) of the scenarios was sent to the teachers through email or social media applications after ample explanations on how and when to provide answers and was collected on the same day.

Audio Journals

The audio journal was another main instrument for data collection. Novice teachers were asked to record audio journals throughout the study, i.e. one academic year amounting to nine months, and describe their teaching practice. They were asked to describe and explain the decisions they made before, during, and after some of their sessions of teaching practice along with the reasons they held for their decisions. The sessions, occasions, or events for which the participants made decisions and the decisions to be described were decided upon by the participants and there was no limit to the length of the audio journals. However, it was emphasized to provide reasons for all the decisions made by the participants.

The reason for the journals to be audio and not written was to ease the process of preparation and sharing. Voices were easily recorded using cell phones and shared through social media applications. No typing was needed and thus less time was spent preparing journals, which was an important factor for the novice teachers as the first year of practice is usually stressful, challenging, and time-consuming for them. In addition, voices could be recorded easily before the teachers forget the event.

The audio journals were received at random throughout the academic year, sometimes once a month and sometimes more frequently, since it was meant to be the participants' choice of when to record and send the file. The participants usually sent their audio journals shortly after their class session and at times one or two days later. Approximately five audio journals from each participant were received within six months of the academic year. The length of the audio files varied from 2 to 10 minutes

each, yielding 180 minutes out of 25 audio files, which were then transcribed and coded to identify the domains of novice teachers' decisions.

Data Analysis

By using a qualitative data analysis procedure through NVivo12pro software, all the transcribed data were closely content analyzed to identify categories and themes. To do so, first, responses to the scenarios were coded deductively because the domains of teaching responsibility or professional practice were pre-specified in the scenarios. Deductive coding helped the researchers find the domains of pedagogical reasoning for the decisions the novice teachers appointed in their responses.

For the audio journals data, the transcription of the audio files was carried out manually. Then, the coding of the data was performed once manually and once using the NVivo software. It should be noted that a combination of deductive and inductive coding approaches was employed in analyzing the audio journals data. Initially, Danielson's (2007) domains were used for coding; however, through further analysis, other codes emerged. The data were first analyzed and labeled to come up with open codes. Then, connections were drawn between codes to create categories or 'axes' (axial coding). Through the deductive approach, the extracted codes were classified based on the areas of teaching proposed by Danielson, as discussed earlier. Through inductive coding, more abstract categories were developed, which encompassed a number of different codes. Finally, categories were connected together to create one theme (selective coding). Consequently, domains of novice teachers' decisions and reasoning were elucidated. All the data were segmented analytically and examined carefully for domain and thematic similarities and differences and then conceptually labeled.

RESULTS

Scenario Findings

The extracted themes were checked iteratively to make sure that the

domains of decision-making and the related pedagogical reasoning had been identified. Careful content analysis of the scenarios resulted in the detection of four main decision-making domains in various phases of teaching, each including a number of themes which addressed the reasons for the decisions made by the novice teachers in the study. Table 2 presents the domains of decision-making and the different phases of teaching.

Table 2: Decision-making Domains of Novice EFL Teachers in Different Phases of Teaching (Scenarios)

No.	Phases of Teaching	Decision-making Domains
1	Pre-active	Planning and Preparation
2	Interactive	Class Management
3	Post-active	Professional Responsibility
4	Beyond-active	Dispositions

As illustrated in the table, the participants' decision-making centered around domains of planning and preparation, class management, professional responsibility, and dispositions. As stated earlier, decisions on planning and preparation were mainly before the actual teaching, i.e., the pre-active phase of teaching. Decisions on class management were made mainly while the teacher was teaching, i.e. the interactive phase of teaching. Danielson (2007) introduced two domains at this stage, namely, 'classroom environment' and 'instruction'. However, the decisions novice teachers made in this study were mainly on classroom management. Decisions on professional responsibility mainly occurred after the actual teaching, when the teacher reflected on his/her action, i.e., the post-active phase of teaching. Decisions classified under 'dispositions' involved teachers' decisions in accepting the essential values, professional ethics, and commitments that monitor teacher behaviors and guide their beliefs and attitudes. Dispositions did not fit in the phases of teaching mentioned earlier. Thus, based on the themes included in this domain and illustrated in Table 3, we introduced a new phase of teaching and named it the 'beyond-active phase'.

Table 3: Novice Teachers' Decision-making and Pedagogical Reasoning

Phases of teaching	Domains	Decision	Pedagogical reasoning
Pre-active	Planning and Preparation		
		Activity design	Content
		Materials selection	Knowledge (CK)
		Text selection	General Knowledge (GK)
		Instructional design Materials adaptation	Pedagogical Content Knowledge (PCK)
Interactive	Class Management		
		Learner assessment Teaching methods	Pedagogical Knowledge (PK)
		Response to misbehavior Encouragement	Knowledge of Learners
		Flexibility Accountability	Personality Features
		Time management	Experience
Post-active	Professional Responsibility		
		Sharing experience Receptivity to feedback	Reflection on behavior
		Keeping records	Reflection on teaching
Beyond-active	Dispositions		
		Attending workshops Counselling colleagues	Professional development
		Care for learners	Attitudes
		Care for profession	Beliefs
	Care for self-credibility	Commitment	

Each of the decision-making domains included themes which are presented in Table 3. These themes illustrate the decisions and also the reasons for their decisions, i.e. participants' pedagogical reasoning.

As illustrated in Table 3 and stated earlier, domains of decision-making cover most of the events a teacher decides upon pre-actively, interactively, post-actively, and even beyond-actively. Decisions related to the domain of planning and preparation (pre-active phase of teaching) mainly included activity design, materials selection, text selection, instructional design, materials adaptation, learner assessment, and teaching methods. It can be deduced that the teachers' decisions on materials, teaching methods, and assessment are integrated in this domain. Furthermore, the reasons novice teachers provided for their decisions centered on their knowledge, i.e., CK, GK, PCK, and PK. Decisions related to class management (interactive phase of teaching) included a response to misbehavior, encouragement, flexibility, accountability, and time management. Thus, it could be inferred that teachers' decisions on management, flexibility, and accountability fit in this domain. Pedagogical reasons for these decisions included novice teachers' knowledge of the learners, personality features, and experience.

The domain of professional responsibility (post-active phase of teaching) included decisions on sharing experience, receptivity to feedback, keeping records, attending workshops, and counselling colleagues, which could well be perceived as novices' decisions on professional interaction and professional development. Pedagogical reasons for these decisions included reflection on behavior and teaching and professional development. Finally, decisions related to dispositions included care for learners, care for the profession, and care for self-credibility, which could be taken to include novice teachers' decisions on ethical conduct, care, and accountability. The reasons novice teachers provided for these decisions stemmed from their attitudes, beliefs, and commitment. Analysis of the codes related to these reasons showed that novice teachers' reasoning was rooted in their identity or temperament, cultural, theological, and ethical training. That is why this phase of teaching was named beyond-active since it encompasses or surrounds almost all the decisions made by novice teachers.

Examples from the coded data can make the classifications and

labelling of the decisions clear. Examples of planning and preparation (pre-active decisions) are as follows:

- Atie: *I plan in a way to take my learners step by step towards the desired outcome*
- Mozhi: *I prepare myself in advance and check for all the vocabulary my students might ask. Don't want to be embarrassed or disappoint my learners.*
- Tahereh: *I plan in a way to involve more and more learners in the tasks from the very beginning, I plan to give the naughty ones responsibility in group activities*

The excerpts show the participants' decisions on planning and preparing themselves for managing their instruction, i.e. their instructional design, their materials, tasks, activities, and learners' behaviors. Novice teachers' reasoning for the above decisions was rooted in their knowledge (CK, PK, PCK) attained throughout their studies at university. For instance, Atie stated: “[I want] to take my learners step by step towards the desired outcome.” Also, Tahereh argued that she aimed “to involve more and more learners in the tasks.” Moreover, the participants' background experience as a school student seems to inform their reasoning. More examples of class management (interactive decisions) include:

- Yasi: *I decide to separate the two students who are distracting others.*
- Zari: *To overcome the problem of small physical space in my classroom, I design activities that are less physically demanding*
- Atie: *I explain the rules of my class to all my students first so that I don't have to spend time on it over and over later on.*
- Tahereh: *I group my students randomly for each activity. This*

way I can manage the naughty ones not to sit together and make trouble.

Mozhi: *I decide to move around the room during group work to answer their possible questions.*

We can understand from the above excerpts that novice teachers' interactive decisions center mainly on class management, i.e. managing student behavior, class time, physical space, teacher/student accountability, and showing flexibility. The reasons they held for their decisions were framed by their knowledge of learners (e.g., Tahereh: "*I can manage the naughty ones not to sit together and make trouble*"). This knowledge seems to have been gained through reflective observation of classes, students, and the teaching context during practicum courses at university. Practicum courses are among the PCK courses in the teacher education curriculum. Other reasons given by the teachers can be traced back to their previous experience as students at school (e.g., Yasi: "*separate the two students who are distracting others*"). Also, novice teachers' reasons for their decisions were related to their skills (e.g., Zari: "*I design activities that are less physically demanding*"; Tahereh: "*I plan in a way to involve more and more learners in the tasks*"). Examples of professional responsibility (post-active decisions) are given below:

Atie: *I will invite parents for a meeting and talk about my method and assure them that they will get the proper result by this method.*

Tahereh: *I talk to the school counselor about my students' problems and try to find a good solution.*

Yasi: *I have decided to enroll in psychology courses to find solutions to some of my students' learning problems.*

These excerpts illustrate novice teachers' attempts to share experience, counsel colleagues, and receive and welcome feedback. It can be construed

that these attempts are made for the reason of professional development and reflection on practice. Participating in different courses on their own, reaching out to more experienced colleagues, and negotiating methods of practice with parents illustrate novices' reflections on their teaching and behavior and their desire to develop professionally. Examples of attitudes, beliefs, commitment (beyond-active decisions) are:

- Mozhi: *As I experienced in my practicum courses, when learners are made responsible for duty, they have better self-confidence*
- Zari: *A teacher should never retaliate*
- Yasi: *I believe all students have the right to enjoy their learning in class*
- Tahereh: *I work with my weak students after school to make sure they learn*
- Atie: *I think it's necessary for a teacher to be able to develop her own materials that suit her students' interests and levels. I design my own materials though it takes up a lot of my time and energy.*

These findings show that novice teachers care for their students, their profession, and their self-credibility. This care is strong enough for them to make sacrifices. In Tahereh's words: "*I work with my weak students after school to make sure they learn; a teacher should never retaliate.*" Also, Yasi stated: "*I have decided to enroll in psychology courses to find solutions to some of my students' learning problems.*" This belief, attitude, or commitment affects all of a teacher's professional practice and that is why it is termed as beyond-active since it encompasses all other decisions made by the cases.

Audio Journal Findings

Regarding another source of data triangulation employed in this study, the

transcribed audio journals were inspected with care to identify the main categories and themes underlying novice teachers' decision-making and pedagogical reasoning. The analysis resulted in the identification of four decision-making domains, each including three themes for pedagogical reasoning (Table 4).

Table 4: Novice EFL Teachers' Decision-making and Pedagogical Reasoning Found in Audio Journals

Teaching Phases	Domains	Decisions	Pedagogical reasoning
Pre-active	Planning and Preparation	Activity design	Content Knowledge (CK)
		Resource selection	Pedagogical Content Knowledge (PCK)
		Text selection	
		Setting instructional outcomes	
		Unit planning	Pedagogical Knowledge (PK)
Teaching methods/strategies			
		Learner assessment/test design	
Interactive	Class Management	Response to misbehavior	Knowledge of Learners
		Interaction type	
		Flexibility	Personality Features
		Accountability	
		Response to learners	
		Time management	Experience
		Space management	
Technology management			
Post-active	Professional Responsibility	Participation in school activities/decisions	Reflection on Behavior
		Communicating with families	
		Receptivity to feedback	Reflection on Teaching
		Keeping records	
		Time budgeting	
Attending courses/workshops	Professional Development		
Pursuing studies			
		Inquiry	
Beyond-active	Dispositions	Care for learners	Attitudes
		Care for profession	
		Training responsible learners	Beliefs
		Integrity and ethical conduct	
		Care for self-credibility	Commitment
Teaching ethical issues			

The results illustrated in Table 4 display novice teachers' decisions and pedagogical reasoning themes extracted from the audio journals, which are comparable with the results from the scenarios. Based on the coded journal data, the domains of planning and preparation (pre-active phase), class management (interactive phase), professional responsibility (post-active phase), and dispositions (beyond-active phase) were detected as novice teachers' main decision-making domains. As for their pedagogical reasoning, (CK), (PK), (PCK), knowledge of learners, personality features, experience, reflection on behavior and teaching, professional development, attitudes, beliefs, and commitment were observed, while (GK) was not detected.

Decisions related to the domain of planning and preparation (pre-active phase of teaching) mainly encompassed activity design, resource selection, text selection, setting instructional outcomes, unit planning, teaching methods/strategies, and learner assessment/test design, which can be implied to make up teachers' decisions on materials, methods, and assessment. Reasons associated with these decisions were grounded in novice teachers' knowledge, i.e., CK, GK, PCK, and PK. As in Table 3, the pedagogical reasons stated for decisions were rooted in knowledge, skills, and personality attributes or inclinations of the cases.

Decisions related to class management (interactive phase of teaching) included responses to misbehavior, interaction type, flexibility, accountability, responses to learners, time management, physical space management, and technology management. As the findings show, these decisions were made for classroom management, flexibility, and accountability. Pedagogical reasons for these decisions included novice teachers' knowledge of the learners, their personality features, and their experience.

Decisions on professional responsibility (post-active phase of teaching) consisted of participation in school activities/decisions, communicating with families, receptivity to feedback (from students, parents, and colleagues), keeping records (of students' responses, marks,

comments, achievements; their lesson planning, activity design, and related comments received from colleagues), time budgeting, attending courses/workshops, teachers' attempts for pursuing their studies in higher education, and conducting inquiry in their profession (e.g., doing action research and self-inquiry) which are implied as their choice of professional interaction and development. Pedagogical reasons for these decisions included reflection on their own behavior and teaching and professional development.

Finally, decisions pertaining to dispositions included care for learners, care for the profession, training responsible learners, integrity and ethical conduct, care for self-credibility, and teaching ethical issues, inferred as their choice of ethical conduct, care, and accountability. The reasons novice teachers expressed for these decisions stemmed from their attitudes, beliefs, and commitment. Correspondingly, analysis of the codes related to these reasons showed that novice teachers' reasoning originated from their identity, temperament, and cultural, theological, and ethical training. Consequently, this phase of teaching was named beyond-active as it encompasses or surrounds almost all the decisions made by novice teachers. Examples from the coded data can make the extracted themes clear. Examples of planning and preparation (pre-active decisions) and the related reasoning themes 'CK', 'PCK', and 'PK' are given below:

- Atie: *I decided to plan an easier activity because I wanted to encourage all the students to participate.*
- Yasi: *I usually plan free discussions too since I know I can manage answering their questions about unknown words.*
- Zari: *I have decided not to use cloze tests with this class. They are not familiar with the format and don't do well.*

The excerpts illustrate novice teachers' decisions on planning and

preparation before beginning instruction based on the knowledge they have gained at university, i.e. their CK, PCK, and PK. Thus, their decision to plan differently in different contexts, for a different audience, and in different situations relies mainly on the use of the gained knowledge. Examples of class management (interactive decisions) and the underlying reasoning themes ‘knowledge of learners’ and ‘experience’ are as follows:

- Tahereh: *I had to change my whole lesson plan right then since the students in this class were nothing like my first class. They are hard to control.*
- Zari: *I decided to end the class sooner because my students were tired and could not carry on.*
- Yasi: *I have decided to bring my own tablet and speakers because I can't rely on school facilities.*
- Mozhi: *For this session, I had to take the students to the prayer room since they needed more space to do their tasks.*

The above excerpts show that the novice teachers' interactive decisions deal with class management, i.e., managing class time, physical space, technology, student behavior, and teacher/student accountability and flexibility. Their reasons stem from their knowledge of learners, e.g., the first three excerpts, previous experiences as school students, as reflected in Yasi's statement (*because I can't rely on school facilities*), and their experience with their designed activities, e.g., Mozhi's statement (*since they needed more space to do their tasks*). Of course, there is no clear-cut borderline among pedagogical reasons made for decisions at different phases of teaching. The following are examples of professional responsibility (post-active decisions) and the related reasoning themes, including reflection on behavior, reflection on teaching, and professional development:

- Zari: *I was late for class previously. I have to make sure it doesn't happen again since I've decided to be a good role model for my learners.*
- Mozhi: *I'm thinking of attending the workshop on class management. Sometimes I'm really blank and don't know what to do.*
- Atie: *I need to be stricter on deadlines*

The above excerpts illustrate that novice teachers make reflections on their actions, i.e. their teaching and behavior. In addition, they make decisions based on their reflections to improve their practice. It can be argued that they keep records of their actions, reactions, situations, conditions, and almost anything related to their profession. This is represented by Zari's statement: "*I was late for class previously. I have to make sure it doesn't happen again.*" Examples of dispositions (beyond active decisions) and the related reasoning themes such as attitudes, beliefs, and commitment are given below:

- Yasi: *As a teacher, I should be well-preserved. That's why I'm determined to dress neatly and decently.*
- Atie: *Most of my break time is spent on answering students' questions and demands though I long for a cup of tea!*
- Tahereh: *We (teacher and learners) spend the last 5 minutes of class time on cleaning the room and putting things in order. They should learn to be responsible people!*

The above excerpts are proof of novice teachers' care for their learners, profession, self-credibility, and focus on ethical issues. The reasons they provided for these decisions originated from their beliefs, attitudes, and commitments to the profession. For example, Tahereh argued that "*They should learn to be responsible people; Yasi: As a teacher, I should be well-*

preserved.” Such reasoning affects all attempts of a teacher. It is a sign of teacher responsibility, which could lead to do sacrifices for their profession.

Analysis of both scenarios and audio journals revealed similarities between the two datasets. The results presented in Tables 3 and 4 not only confirmed the main domains of decision making and pedagogical reasoning but also revealed the multidimensionality of the teachers’ teaching practice.

DISCUSSION

Yielding important themes underlying novice teachers’ pedagogical decision-making and reasoning, this study reveals the multidimensionality of the teachers’ professional decision-making during their teaching practice. The extracted themes are aligned with Danielson’s (2007, 2013) framework for teaching and Shulman’s (1987) model of teacher pedagogical reasoning. However, distinctions were also observed. Some of the reasoning themes, including attitudes, beliefs, personality features, commitment, and experience, were rather new and specific to the present study. Correspondingly, some of the components of Danielson’s (2007, 2013) framework were not present in this study (for instance, establishing a culture for learning). This could be due to the difference in the context of participants’ practice as context plays an important role in teachers’ professional decision-making.

Regarding Shulman’s (1987) model, approximate compatibility was found between the present findings and Shulman’s six elements. Shulman’s cyclic model, including comprehension, transformation, instruction, evaluation, reflection, and new comprehension, was confirmed by the present findings. As teachers moved through different phases of teaching, they actually practiced Shulman’s model. They comprehended, transformed, and used their knowledge types to plan and prepare for practice (pre-active phase). They used their knowledge and skills to manage classroom procedures and instruction (interactive phase). They reflected on their practice and made evaluations to come up with new comprehension to fulfill

their professional responsibility that would lead to their professional development (post-active phase). All this was affected by their attitudes, beliefs, and commitments to their profession (beyond-active phase). When compared with Shulman's (1986, 1987) account of three sources of knowledge (i.e., theoretical, practical, and moral,) as bases for teachers' pedagogical reasoning, the results seem to be consistent. As stated by Shulman (1986, as cited in Rasmussen, 2015):

Theoretical knowledge is generalized from empirical research and suggests what may be true universally. Practical knowledge reflects a teacher's experiences (both as a teacher and learner) and often pertains to aspects of teaching that may never be examined by research. Moral knowledge emerges from the teacher's or society's ethical stance and pertains to actions that are 'right' or 'just' when compared to established standards of humanity. (p. 11)

This assertion is reflected in the themes of belief, attitude, and experience found in the present study. Yet, commitment and the depth and nature of pedagogical content knowledge were not found to be consistent with Shulman's model and were originally found in this study. While Shulman focused on the teacher presenting the new knowledge, participants in this study concentrated on designing and planning instruction in a way that learners constructed the new knowledge in their own way; thus, setting instructional outcomes, materials development, and learning activity were among the reported decisions by the present novice teachers. Starkey (2010) also came up with a similar alteration to Shulman's (1986) model, emphasizing a "change from transformation to enabling connections and the integration of evaluation and instruction into one teaching and learning aspect" (p. 241). She accentuated the "idea of students creating knowledge ..., rather than the teacher transmitting the 'truths' (Starkey, 2010, p. 241).

Class management was found as another domain reported by the participating novice teachers in this study. This commonly perceived decision-making domain matches the areas of teacher decisions discovered

by Asghari, Alemi, and Tajeddin (2021), Demiraslan-Cevik and Andre (2013), Stahnke and Blömeke (2021), and Wermke, Ricka, and Salokangas (2018), who came up with areas of management strategies, namely strategies of control, guidance, and prevention. Other important areas included motivation and providing guidance and feedback, instruction, making connections between the subjects of the study, and dealing with challenges. Furthermore, to find mismatches between novice and experienced teachers' beliefs and practices, Mehrpour and Moghaddam (2018) came up with four main domains with three sub-categories, namely, classroom management and organization, language assessment, motivation, and teachers' knowledge, including CK, PCK and PK. Supporting Mehrpour and Moghaddam's findings, the present results are also in line with the interpretation that teachers' beliefs ground their reasons for their pedagogical decisions. Also, their attitudes justify their pedagogical reasoning.

The pedagogical reasoning domains in the pre-active phase of teaching found in the present study are also in line with those of Blömeke and Delaney (2012), Forkosh-Baruch, Phillips, and Smits (2021), Mohamad, Yee, Tee, Ibrahim Mukhtar, and Ahmad (2019), who portrayed teachers' professional competence as two-dimensional, consisting of cognitive abilities and affective-motivational characteristics. As to the first dimension, domains of professional knowledge, general pedagogical knowledge, content knowledge, and pedagogical content knowledge match the reasoning themes in this study. Likewise, motivation, self-regulation, and professional beliefs about teaching and learning and the subject content fit well into attitudes, beliefs, and professional responsibility found in the present study.

In addition, the reasoning domains introduced in this study are consistent with those of Aho et al. (2010), who explored the logic of teachers' actions in their classroom management. They found the themes of knowledge of students, teacher's personality, emotional state, caring, uniqueness of the educational situation, school's operational environment,

and the social context. For instance, regarding teachers' emotional state, they explained that "in a classroom management situation teachers can orient their action to settle the situation guided by their own will, regardless of their emotional state" (p. 398). This explanation fitted flexibility, accountability, and response to learners in the main domain of class management. Moreover, the explanation of caring proved to be compatible with teachers' commitment to building "trust, and a secure and confidential pupil-teacher relationship" (p. 399).

CONCLUSION AND IMPLICATIONS

This qualitative multiple case study focused on novice EFL teachers' competency in decision-making and pedagogical reasoning in the domains introduced by Danielson (2013) during the three phases of pre-active, interactive, and post-active teaching through two data sources of scenarios and audio journals. The decisions made by the five participants in their first year of professional practice and the underlying pedagogical reasoning revealed the multidimensionality and simultaneity of the teaching profession. This longitudinal study was conducted in one academic year and yielded three major findings. The first was the domains of novice EFL teachers' decision-making and pedagogical reasoning, i.e. pre-active, interactive, and post-active decision phases. Second, a new professional decision phase, beyond-active, that encompasses all other phases of teaching, was discovered. Third, pedagogical reasoning domains were found to stem from the knowledge, skills, and personality attributes or inclinations of novice teachers in this study. Based on the findings, the main conclusion that can be drawn is that novice teachers illustrate competency in the areas of their professional practice outlined by Danielson (2007, 2013) and are able to provide reasons for their practice through the systematic integration of epistemology, skills, values, beliefs, attitudes, and knowledge as suggested by Trevisan, Phillips, and De Rossi (2021).

The findings could be useful for researchers in the field of teacher education in general, and second language teacher education (SLTE), in

particular, to carry out further inquiries in different contexts with different experience levels of teachers. The findings also provide an analytic lens through which novice teachers' reasoning and the resulting action can be analyzed to find more about the process of their learning to teach. By encouraging novice teachers to share their experience, values, and reflection on critical incidences in their teaching context, they can gain insights into their professional development (Nilsson, 2009; Trevisan, Phillips, & De Rossi, 2021). Clearly, by empowering novice teachers to focus on these incidents and rely on their own experience, as argued by Munby and Russell (1994) about three decades ago, and link their experience with their reasoning, they can get professionally developed and direct their own learning about teaching.

The present research had a few limitations, one of which was the context of the participants' practice. They were all from one city and not scattered across the country. Another was the gender of the participants as all were female. In view of these limitations, suggestions for further research would be studying novice teachers in different contexts with varying norms, cultural and economic status, and gender. Also, a more longitudinal study is recommended.

Disclosure statement

No potential conflict of interest was reported by the authors.

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