

Developing Teachers' Reflective Practices through a Virtual Exchange Program

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Abstract

This qualitative case study aimed at investigating the extent to which EFL teachers' reflective practices can be developed based on a six-week virtual exchange program (VEP) through reflective journals. Also, the potential contribution of this virtual exchange program to teachers' professional development and possible affordances to reflective practices were investigated through semi-structured interviews. Data obtained from reflective journals were analyzed based on the reflection scale. Moreover, content analysis was employed to analyze the interview data. The findings revealed that virtual exchange programs developed teachers' reflective practices. In particular, VEP was seen to open up opportunities for teachers to develop new professional partnerships, collaborative academic initiatives, and collaboration skills, also to introduce more innovative approaches in their current teaching practice.

Keywords: online teaching, reflection, reflective journals, teachers' professional development, virtual exchange program (VEP)

Introduction

Inspired by two mainstream views of learning, situated and social constructivism, teachers should be exposed to meaningful practice and instruction for successful and effective professional development (Weber et al., 2018). Teachers also should be engaged in practices that promote teachers' reflection and interaction with peers (Nami, 2021). Reflective practice is "a cognitive process accompanied by a set of attitudes in which teachers systematically collect data about their practice, and while engaging in dialogue with others use the data to make informed decisions about their practice" (Farrell, 2014, p. 123). The association between teachers' reflection and their personal classroom experience is the pivotal factor that makes reflection essential in language teachers' professional development. Pedagogically, teachers need to be stimulated to self-reflect and promote their teaching practices (Pow & Lai, 2021). Therefore, it is essential to systematically stimulate teachers' reflections on their teaching practices (Pow & Lai, 2021).

A plethora of research suggests that an online environment can stimulate teachers' reflection (e.g., O'Dowd & Dooly, 2021; Tilson et al., 2017). The online environment

provides teachers with richer options to enhance reflective practices (O'Dowd & Dooly, 2021), and it changes the way teachers communicate and reflect (Lenkaitis, 2020). Moreover, the online environment brings diverse opportunities and provides grounds for promotional modifications in educational practices (Lenkaitis, 2020; Mumford & Dikilitaş, 2020; Tilson et al., 2017).

The online environment lets teachers upload teaching practices to online discussion communities for further reflection and peer evaluation (O'Dowd & Dooly, 2021). Teachers can enhance reflective thinking through the process of providing and receiving comments and sharing teaching experiences (Mosley Wetzel et al., 2017; Pow & Lai, 2021). One of the most recommended techniques to encourage and develop teachers' reflections is video recordings of teachers' instructional practices (Kourieos, 2016; Tilson et al., 2017). Teachers can upload, share, and review a video of teaching practices and conduct a detailed analysis of the teaching techniques through online environments. Teachers can learn from peers' practices through videos followed by comments and prompts (Hatch et al., 2016). Moreover, self-reflection through videos where teachers are recorded then watch back with scaffold and learn from and about their practices has long been an effective self-development tool (Calandra et al., 2014). Furthermore, self-reflection through videos with peers is an opportunity to get feedback, develop a more outstanding picture of areas of strength and weakness, and gain insights to improve pedagogy (Arya et al., 2015; Shanahan & Tochelli, 2014).

Teachers often believe that video-based reflection and feedback are more helpful than simple supervisory comments. Because videos provide a comment frame of reference on which the discussions are based instead of relying on often incomplete or inconsistent memories of the event (Pow & Lai, 2021). Moreover, teachers regard videos as an evidence-based practice that helps them recall the events and deepen reflective responses. Therefore, teachers can upload their recorded teaching videos for further reflection, idea exchanges, and peer evaluation (O'Dowd & Dooly, 2021; Pow & Lai, 2021). In this process, teachers' reflective skills can also be developed through shared experiences (Mosley Wetzel et al., 2017) and peer evaluation on teaching practices in virtual exchange environments.

In virtual exchange programs, teachers are provided with sufficient space to develop their viewpoints, unlike face-to-face classes where this opportunity is limited (Loranc-Paszyk et al., 2021). Virtual exchange programs offer more time to assess what and how to respond and compare their views with peers (Straková & Cimermanová, 2018) and facilitate the development of teachers' digital, intercultural, and teaching skills (Lenkaitis, 2020; Loranc-Paszyk et al., 2021).

In general, virtual exchange programs have changed the way teachers reflect on teaching practices (Lenkaitis, 2020). In a study by Lenkaitis (2020) in the United States, teachers developed their reflective practices during a four-week virtual exchange program by watching their recorded video sessions. In another study, Baroni et al. (2019) revealed that teachers found virtual exchanges a stimulating and exciting learning experience. Nearly 76% of the participants regarded virtual exchanges as beneficial to teaching careers. Participants were successful in the acquisition of intercultural, multimodal, and foreign language skills. Findings also revealed that virtual exchange communications not only increased the innovative use of technology for international collaborations but also increased confidence in intercultural work.

Virtual exchange programs can be beneficial tools to enhance reflective practices in teachers (Lenkaitis, 2020). Developing teachers' reflective skills is vital since it helps teachers to be autonomous decision-makers and critical thinkers (Cho, 2017), which finally leads to the improvement of teaching quality by allowing teachers to take a conscious look at classroom experiences and finding a suitable solution to the problems, and finally making sensible changes and transcending to critical thinking capacity (Karakas & Yükselir, 2021; Thu, 2019). From this perspective, the significance of the current study lies in the fact that this study is an attempt to equip EFL teachers in the initial phase of professional development with opportunities to be competent at reflective practices through a virtual exchange program.

The affordances of virtual exchange professional development courses are still widely underexplored in the context of computer-assisted language learning (CALL). Much of the research to date on virtual exchanges focused on developing teachers' educational technology knowledge (Lenkaitis, 2020; Nami, 2021; Shek et al., 2021). Even though these studies led to teachers' professional development, exploring how reflective practice would improve through virtual exchange professional development courses is still untouched. Thus, this study aims to explore the extent to which EFL teachers' reflective practices can be developed based on a six-week virtual exchange professional development program. Also, the possible affordances of a virtual exchange professional development program for EFL teachers were investigated. In light of the above research background and the mentioned gap, this study attempts to answer the following research question:

1. To what extent can EFL teachers' reflective practices be developed through a virtual exchange professional development program?
2. What are the affordances of a virtual exchange professional development course for EFL teachers?

Conceptualization of Reflective Practice in Teacher Education

Reflection has a long tradition and was first defined by Dewey (1986, p. 7) as "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends". Recently, Walshe and Driver (2019) defined reflection as a self-critical and exploratory process that enables teachers to assess their pedagogical decisions on their situated practices. Reflection has been the focus of research for almost a hundred years (Dewey, 1986), though, recently, the role of reflection has gained prominence in teachers' professional development pedagogy (Lenkaitis, 2020). In order to enable teachers to externalize their professional thoughts and feelings (Shek et al., 2021), teachers need to be involved in continuous academic and professional reflections (O'Dowd & Dooly, 2021; Shek et al., 2021), which is essential both for self-development and professional development (Maaranen & Stenberg, 2017).

Moreover, reflective practices enhance teachers' self-awareness of classroom practices and therefore bring about beneficial changes, including development in critical thinking, problem-solving, and decision-making (Shek et al., 2021; Thu, 2019). Teachers may regard reflective practices as a tool to evaluate their teaching practices by posing questions (Thu, 2019). Reflection is composed of a hierarchy of skills in which teachers'

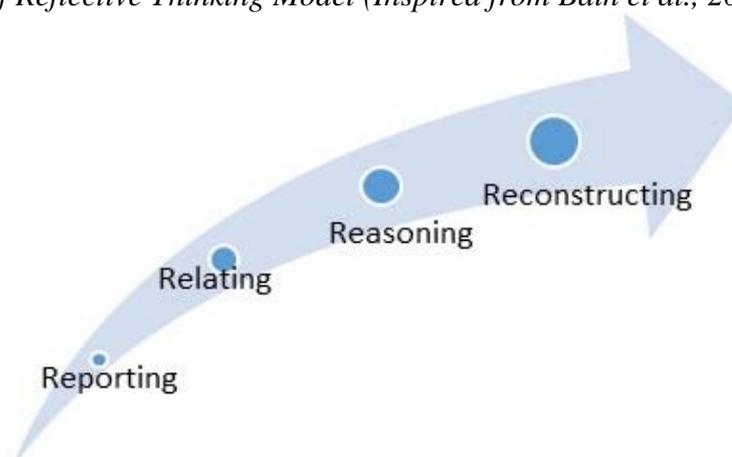
externalized thoughts are grouped as different levels ranging from simple observation and technical noticing to critical thinking with the idea of cognitive reconstructions (Davis et al., 2018).

In a study, Shek et al. (2021) used self-reflective journal entries and questionnaires to investigate the extent to which peer feedback using video annotation tools in an online environment benefited teachers' reflective levels. Data analysis revealed the improvement in teachers' reflection level, which ranged from superficial descriptive level to critical restructuring level, though the improvement was not significant in time. This finding might be due to the fact that the participants were not scaffolded in the process of reflection. They also highlighted that teachers might be provided with scaffolds and some consciousness-raising guidelines to raise awareness on their teaching practices at each reflective level. This is also acknowledged by other researchers like Turhan and Kirkgoz (2018), who claimed that teachers need to have the ability to transcend from the technical levels of reflection to establish a connection between theory and practice.

Researchers proposed several types and levels of reflection. Murray (2010) defined reflection as two types of individual and collaborative. Individual reflection referred to the teacher's individual attempts, while collaborative reflection engaged a group of teachers. Farrell (2014) developed a framework that encompassed a holistic approach toward reflection. It focused on cognitive, meta-cognitive, and intellectual aspects of teaching. Considering the aim of the study, we used the reflective model proposed by Bain et al. (2002). Since other reflection models are concerned with how and at what level teachers reflect rather than on developmental stages of reflection. As illustrated in Figure 1, the four levels of reflective thinking increased from a simple description of an event to an individual response to a more complex level through applying a theory and experience to transform teaching practices and pre-existing beliefs. In the initial reflective stages, it is typical to describe the happenings. Though in higher stages of reflection, reasoning and cognitive reconstructing are evident (Shek et al., 2021).

Figure 1

The Four Levels of Reflective Thinking Model (Inspired from Bain et al., 2002)



Methods

Research Design

The current study employed a qualitative case study design. Case studies aim at exploring and explaining an event in a real context. According to Shakir (2002, p. 191), “case study research is deemed suitable when the proposed research is largely exploratory; and addresses the ‘how’ and ‘why’ questions.” For the purpose of data collection, self-reflective journals and semi-structured interviews were used. According to Stevens and Cooper (2009, p. 5), a reflective journal is “a sequential, dated chronicle of events and ideas,” including “the personal responses and reflections of the writer on those events and ideas.” Moreover, there is a self-understanding in reflective journals whereby teachers move from the level of action to the level of underlying beliefs. Such self-understanding shows the fundamental nature of reflectivity in addition to its broadness of content (Donyaie & Afshar, 2019; Kelchtermans, 2009). A qualitative content analysis was utilized to analyze the reflective journals, and semi-structured interviews were analyzed through grounded theory.

Participants

The participants of this study were six English language teachers (four females, two males) from different cities (Shiraz, Tehran, Esfahan, and Sari) in Iran, with an age range of 25 to 36. All of the EFL teachers work part-time in private language institutes and have substantial teaching experiences. The participants were voluntarily registered for an online professional development course and signed consent forms to disseminate the collected data. Informed consent forms were signed and returned to the first researcher through email. The study information sheet was also sent to them, and they were informed that they had the right to withdraw from the study at any time before disseminating the results. Also, no incentives were provided. Table 1 illustrates the participants’ main characteristics. Pseudonyms are used to protect the anonymity of the participants.

Table 1
Main Characteristics of the Participants

Pseudonym	City	Gender	Age
Sara	Shiraz	Female	27
Asal	Shiraz	Female	32
Arash	Shiraz	Male	25
Tara	Tehran	Female	28
Homa	Esfahan	Female	34
Omid	Sari	Male	36

Procedures

This study represents EFL teachers who participated in guided discussions using consciousness-raising prompts in order to reflect on their teaching practice. To meet the end, we used video recordings of participants’ teaching with the aim of having

collaborative discussions. Furthermore, unlike previous studies, this study shed light on the supervisor's role in the reflective process as a guide who can direct teachers' self-analysis (Karakaş & Yükselir, 2021; Shek et al., 2021). It is essential to know how teachers' reflective practices might be improved through the guided discussions and provided prompts (Shek et al., 2021).

In the first phase, each teacher demonstrated a 30-minute lesson based on the course syllabus in a real classroom, which is recorded for further analysis. Video recording is considered a cost-effective CALL tool that helps foster language teachers' reflective skills by recalling the events and deepening reflective thoughts (Davis et al., 2018), and assisting teachers to focus on their teaching practices (Karakaş & Yükselir, 2021). In addition, scholars counted so many benefits for recorded videos, including a) teachers no longer need to rely on their memories (Davis et al., 2018), b) videos can change the type and depth of reflection (Davis et al., 2018), and c) videos have the potential to be reflected and analyzed limitlessly and without the necessity to have an immediate reaction (Weber et al., 2018), to name a few. After the teaching demonstration and to depict the priority reflection level, each teacher had to submit a self-reflective journal of at least 300 words. The teachers were instructed to meet synchronously via Zoom for six weeks, and each session took one hour.

In the second phase, one teacher's demonstration lesson recording was uploaded for further peer evaluation, guided discussions, and reflection in the Zoom video conferencing tool in each session. Teachers' online collaboration has also been proven prominent in teachers' professional development (Vanoostveen et al., 2019). Collaboration of peers is assumed to serve as a stimulus for reflection (Nami et al., 2018). It is strongly suggested that collaboration is integral to CALL teacher education and professional development (Gorozidis et al., 2020). A collaborative learning environment provides teachers with more space and time for observation and discussion that is necessary to go through an analytical process of classroom events (Straková & Cimermanová, 2018). Vasodavan et al. (2021) suggested that collaborative learning benefits teachers by bringing their prior knowledge and experience and sharing it within the community. The first 30 minutes of each online session was devoted to video watching, followed by guided discussions, peer comments, and feedback. Virtual exchange sessions let the teachers be engaged with the discussion and peer evaluation. Peer evaluation is defined as a situation where equal-status learners provide each other with feedback, which is rudimentary in teacher education courses (Shek et al., 2021). Saturating in a wide variety of viewpoints involves teachers in higher-order reflective skills, which develop teachers from a descriptive level of reflection into a deeper analytical level (Straková & Cimermanová, 2018). As a consequence of assessing their peers and analyzing peers' comments, teachers will be influenced regarding how they reflect upon their own performance (Straková & Cimermanová, 2018).

To help teachers' professional development, they should be scaffolded to reach a level that can associate their teaching practices with relevant theories and methodologies since teachers' skills and knowledge are not developed in isolation. Instead, teachers need practices that develop experiential knowledge in line with the knowledge transmitted via direct instruction (Nami, 2021). In teacher professional development, learning from their own experience and focused discovery process is a process which needs to be guided (Straková & Cimermanová, 2018). Self-reflection without proper guidance would lead to no significant improvement. Thus, peers and experts are required to guide and channel

teachers' reflective practice through prompts (Karakas & Yükselir, 2021). Therefore, it is pedagogically pivotal to show how guided discussion in a virtual environment can boost teachers' professional development in general and reflective practices in particular (Thu, 2019). Thus, in this study, the supervisor (the first author) acted as a facilitator, guided their discussions with consciousness-raising prompts (see Table 2) to navigate their reflections to more critical levels. The supervisor's consciousness-raising prompts in guided discussions were adopted from Ryan and Ryan (2013).

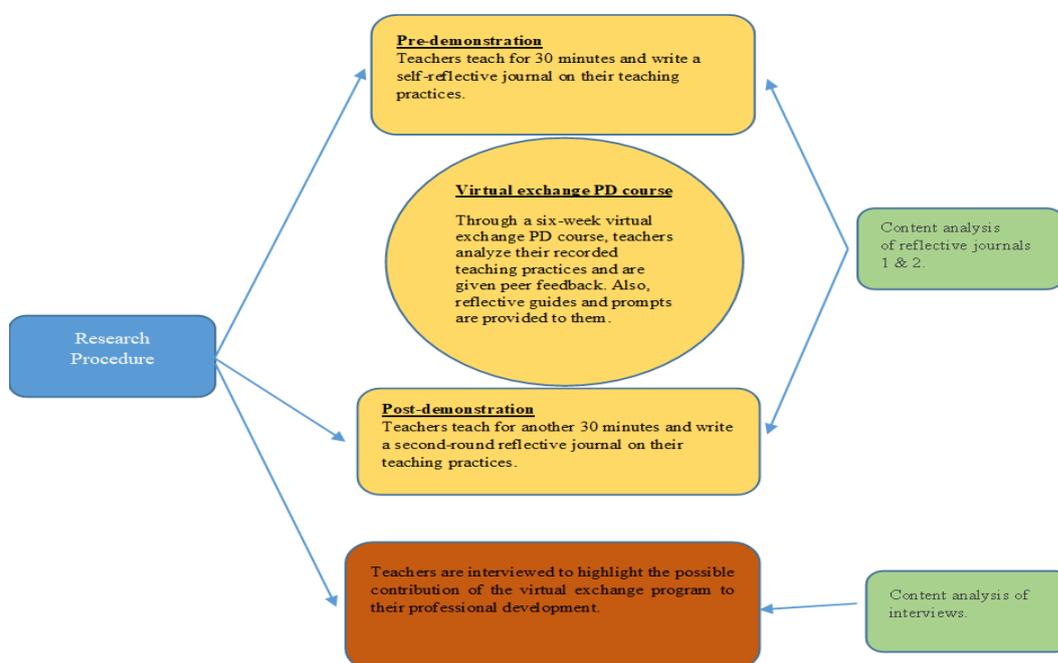
Table 2

Prompts Used in Guided Discussions to Foster Critical Reflection (Adopted from Ryan and Ryan, 2013)

Levels	Prompts
Reporting	Can you explain what happened? What incident was involved? Can you express your opinion?
Relating	Can you make a connection between this incident and your professional experience? Can you relate this issue with your discipline knowledge? Do you have the skills and knowledge to deal with this?
Reasoning	Can you explain the factors underlying this incident? Why are these factors important to understanding an issue? Can you refer to relevant theory to support your reasoning? How would you handle this in a similar situation?
Reconstructing	How would you reframe or reconstruct your future practice in a similar situation? How would you deal with this issue next time? Do any theories support your ideas? Can you make any changes to benefit others and have inclusive teaching?

After going through all six sessions, teachers had to do another teaching practice and write another 300-word self-reflection journal for comparison with the first one. At the end of the course, teachers were engaged in semi-structured interviews. The aim was to capture the potential of the virtual environment to develop teachers professionally in general and reflective skills in particular. See Figure 2 for the procedures followed in this study.

Figure 2
Schematic Design of Research Procedures, Data Collection, and Data Analysis



Data Analysis

Reflective journals

In order to depict the depth of reflection provided by EFL teachers' journals, a four-level assessment framework proposed by Bain et al. (2002) was adopted. This assessment criteria score indicates four levels of reflection. It started from level one and developed to level four, which is assumed to be the highest level of reflection. In the initial level, the reflective notes refer to "Reporting and responding", "Relating", "Reasoning", and "Reconstructing", respectively (Shek et al., 2021). Table 3 represents the four-level assessment framework for the content analysis in this research. Content analysis is a general term referring to systematically codifying and analyzing qualitative data (Bernard et al., 2016). Content analysis lets the researcher explore the trends, patterns, and frequency of data. Although qualitative content analysis will be used, the results will be interpreted quantitatively by descriptive statistics (frequency and percentages) (Nami, 2021).

In this study, the effect of the virtual exchange professional development course on the reflective practices of EFL teachers was measured through content analysis and assessed through the framework. Content analysis allows the comparison of teachers' reflective journals before and after the virtual exchange course. In this study, the unit of analysis was theme or idea and not a syntactical unit at the sentence level. After scrutinizing reflective notes through several rounds of rereading, related themes according to the four-level framework were identified. Since text chunks larger than a

sentence represented the themes, the unit of analysis ranged from a single sentence to a paragraph.

Table 3

The Four-level Model for Teacher's Self-Reflection (Bain et al., 2002)

Reporting and responding	The reflective notes include a simple description of the events, teachers' inner feelings, subjective judgments of scenarios, personal evaluation of strengths and weaknesses pertaining to the teachers' professional practice.
Relating	The reflective notes include teachers' descriptions of the skills, theoretical concepts, strengths, and weaknesses accompanied by a description of the corresponding scenario in the professional practice.
Reasoning	The reflective notes point to the elaboration of underlying factors behind scenarios in professional practice.
Reconstructing	The reflective notes show how teachers' reasoning contributes to new insights, which lead to teachers' advancements and development in professional practices.

Interviews

All six participants agreed to attend a semi-structured interview to highlight the contribution of the virtual exchange course to the teachers' professional development. The interview data were analyzed through a grounded theory approach. This inductive content analysis starts with open coding followed by axial coding and ends with selective coding (Dörnyei, 2007). That is, the interview transcriptions went through several (four) rounds of rereading to identify patterns and sub-themes. This process was followed by axial coding in which similar themes were linked to form more inclusive categories. In the final selective coding phase, core categories that subsume other categories were selected, and the data were summarized. Moreover, these core categories were subjected to quantitative analysis through frequency analysis which is presented in Tables 2 and 3 (Dörnyei, 2007). In order to elucidate the issue, some excerpts of the teachers are provided.

Findings

This study aimed at exploring the extent to which EFL teachers' reflective practices can be developed based on a six-week virtual exchange professional development program. Also, we investigated the possible affordances of virtual exchange professional development programs for EFL teachers.

RQ1: To what extent EFL teachers' reflective practices can be developed through a virtual exchange professional development program?

Analyzing and comparing the first and second rounds of reflective journals revealed that EFL teachers' reflective practices were developed as a result of the six-week virtual exchange professional development program. Reflections obtained in the first and second rounds of journals were considered based on the reflection scale by Bain et al.

(2002). Then the number of times each teacher made reflections at the level of reporting, relating, reasoning, and reconstructing were counted.

Table 4

The Frequency and Percentage of Each Reflective Level

	Reporting		Relating		Reasoning		Reconstructing	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
1 st reflective journal	22	44	14	28	8	16	6	12
2nd reflective journal	14	28	11	22	13	26	12	24

The findings indicated that in the first phase of journal writing, 44% of the reflective notes were in the ‘reporting and responding’ level, in which most of the reflective notes were categorized as reporting of the events. For example, Arash asserted, *“The students mostly use L1. Rare use of L2 is evident except for commands such as may I go out?”* Or Asal noted that *“We started with a game, I drew some cards from the box the students needed to guess and, they were rewarded at the end.”* As inferred from Arash’s excerpt, the teachers only reported the situation without any comments or insights. Likewise, Asal tried to describe the gaming process without adding any personal insights.

Also, in the first round of journal writing, 28% of reflective notes were categorized in the second level, and most of the reflective notes subsumed under the category of ‘relating.’ It can be inferred from Homa’s excerpt, *“Some students are not active despite their good proficiency. I think this might be related to their self-efficacy and self-confidence. I need to adopt a strategy to help them”*. In terms of ‘relating’, Homa highlighted how she could help students by changing her teaching strategies and expressing personal ideas. Furthermore, in the first round of journal writing, only a small group of teachers’ reflective notes adhere to the ‘reasoning’ level of reflective thinking, approximately 16%. Among the participants, only Tara’s reflective notes were pertinent to this level. She wrote that *“students are not good at teamwork, it might have a root in their personality and cognitive style.”* In terms of the highest level of reflection, namely the “reconstructing” level in the first round, only 12% of reflective notes represented this level.

Contrary to the large proportion of reflecting notes to the ‘reporting’ category, the lowest percentage belonged to the ‘reconstructing’ level in the first round. Reflective notes approximately showed no sign of abstract thinking or personal theories to draw original conclusions. In the first round of reflective journals, teachers did not demonstrate authoritative knowledge of the professional field. Their reflective notes were mostly on self, their views, and learning styles. Most reflective notes showed no sign of new insights or reconstructions. Analyzing teachers’ first round of reflective notes denoted that they do not have a good command of reflective tenets in practice.

In contrast, in the second phase of writing a reflective journal, a significant positive shift was evident in teachers’ reflective journals. In fact, only 28% of reflective notes were categorized in the ‘reporting level.’ This sharp decrease in this initial level is

a sign of improvement toward teachers' development in reflective practices. This is a sign of development that a small number of reflective notes were categorized in this initial level, and most of them moved to a higher level of reflection. In addition, in the second round of journal writing only, 22% of reflective notes represented the 'relating' level. The teachers' reflective level increased to 26% in the third level, and most of their reflective notes showed some 'reasoning' features as well. It is inferred from Omid's excerpt, who based his reflection on personal insight and brought justifications to his choice: *"Taking the matter of diversity into consideration, students have idiosyncratic differences. Thus I would gift students differently. Since some might be motivated by different intrinsic and extrinsic motivations."* It is evident that the focus of the reflective notes changed from a simple description of events to a more thorough analysis and reasoning of the events. In the second round of journal writing, 24% of the reflective notes could reach the highest level of reflection. This proves the success of the teachers' virtual exchange program and peer collaboration in addition to the possible contribution of the consciousness-raising prompts. As an example, Sara wrote, *"Next time I would devise a game so that student could relate actions and names. Games help them transfer knowledge from short term memory to long term memory"*. Identically, Omid had many extracts pertinent to the "reconstructing" level in his note *"Since students act and think in different ways, I need to make rapport with them differently. Playing or making jokes does not work in all students"*. Reflective notes showed a considerable divergence between first and second-round reflective journals. Gradually they improved to use relevant theories and frameworks to reason and reconstruct their ideas and practice.

RQ2: What are the affordances of a virtual exchange professional development course for EFL teachers?

The summarized data regarding the teachers' perception of possible contributions of the virtual exchange professional development course are presented in Table 5. Five codes were finally selected based on the grounded theory approach and through inductive content analysis in the selective coding stage. As shown in Table 5, five teachers pointed out that the virtual learning PD experience increased their professional development and teaching quality to a great extent. Omid stated his opinion that:

"I acquired a better understanding in terms of teaching methods, time management, language use, innovation and motivation, and this new insight improved my teaching quality."

Table 5
Contribution of Virtual Learning PD

Response	F	%
Improve teaching quality	5	33.3
Bridge theory to practice	4	26.7
Supportive environment	3	20.0
Contextualized learning	2	13.3
Removed distance barriers	1	6.7

Moreover, the participants thought that writing reflective notes made them think more deeply about their actions before, after, and in the class. Teachers considered their weaknesses and strengths, their students' needs, and their contextual demands while writing reflective journals. Concerning teaching quality in general, teachers gained the ability to differentiate between good and bad teaching quality. The following statement by Sara explains the situation clearly:

“As an observer I acquired the skill to behave students appropriately and realize right and mistake in teaching.”

It is also evident that four interviewees held the view that this online learning experience bridged theory to practice, and this study gave them a practical experience of teaching theories. The participant of this study highlighted the rationale behind their teaching practices and pointed to the relevant ELT theories, strategies, and classroom techniques. It is illustrated in the following excerpt by Tara:

“Observing peer’s real classes was useful. I think observing real classes and peers teaching is a more precious experience than just reading in the books.”

Additionally, teachers were given opportunities to reflect on their teaching practices by watching the recorded videos. The findings of the interview revealed that recorded video sessions provided teachers with an environment that has spatial and situatedness and provides a contextualized learning environment. Teachers felt that they were back in the classroom. This is supported by Arash, who asserted that *“you are able to look back in the class in a less stressful situation and feels like you are back there”*. Teachers have the agency to explore the spaces that have been missed in the classroom. For example, Homa explains, *“if you have not seen a particular section in your class, you can look at it by recorded video and redesign your practices which are not suitable and could have considered your position in a class better”*. This help teacher to develop the observation skills necessary to consider multiple factors influencing practice in context.

Teachers also highlighted the supportive environment of peer feedback in virtual exchanges. Peer feedback is supportive, critical, and constructive. In that, it contains explicit arguments containing suggestions for improvement. Asal asserted that *“Teachers might not be comfortable to give feedback due to lack of qualification for peer evaluation, but the technological tools which provide some degree of anonymity could encourage a safe environment for peer participation.”*

Also, one of the participants pointed to the time-saving feature of the online environment and the fact that this virtual environment has removed distance barriers. Sara clarified this by her assertion: *“As a teacher who lives and works in a remote area, this online chance was a valuable course to improve my teaching quality. Since I am far from the city and do not have access to face-to-face courses.”*

Discussion

In order to facilitate teachers' professional development through reflection, this study has laid the groundwork for a virtual exchange partnership. The findings

highlighted that reflection through virtual exchanges in a collaborative environment was a precious tool in teachers' professional development. At the onset, lack of specific skills to develop reflection led to haphazard reflective practices. A partial justification of these findings might be ascribed to the teacher education system in Iran since there is a lack of training in reflective teaching practices. The tenets of reflective teaching in general and writing reflective journal notes, in particular, are not clarified in teacher development courses in the country. The findings might be due to the fact that stakeholders' focus might be on theories rather than on practices. Our reasoning in this respect can be corroborated by Donyaie and Afshar (2019) assertion that the notion of reflection has not been clarified enough by teacher educators. Authenticating this, Zulfikar and Mujiburrahman (2018) also found that in the first round, the participants primarily focused on the events happening in the class, including teaching materials, teaching methods, and teaching problems. Contrary to our study, in published studies, consciousness-raising prompts were not used to guide teachers' reflection.

As a result of the consciousness-raising prompts and virtual exchanges, teachers gained the ability to use theory, disciplinary knowledge, professional standards, and pedagogic experiences to relate, reason, and reconstruct interrelated facets of professional practice. It is widely acknowledged that sustained guidance on reflection is crucial though difficult for teacher professional development (Donyaie & Afshar, 2019). This stance can be corroborated by the ideas of Yuan and Mak (2018), who regarded the application of reflective teaching as difficult due to its elusive nature. Thus, proving the chance to peruse the tenets of reflective teaching in practice is deemed essential. This discussion suggests that teachers were beginning to reflect more in a nuanced way through a virtual exchange partnership. The participants highlighted how the experience led them to reflect on teaching practices and to bring changes wherever needed. This finding is in line with studies conducted by Brody and Hadar (2018) and O'Dowd and Dooly (2021), who highlighted the role of collegial interaction in bringing modifications in teaching and professional development. Our findings also corroborate O'Dowd and Dooly's (2021) study on teachers' critical awareness through virtual exchange partnerships. We found that virtual exchanges broadened the international perspectives among teachers.

As highlighted by Murray (2015), reflective practitioners are better at overcoming modifications to teaching, but due to busy schedules and professional pressures, reflection does not occur. Although our findings uphold the idea that engaging teachers in collaborative teaching can lead to a "peer-supported collaborative reflective teaching cycle" (Murray, 2015, p. 24), the process of negotiating, discussing, and mutually reflecting can lead to reconsidering previous teaching practices in terms of efficacy (O'Dowd & Dooly, 2021).

Regarding the affordances of the virtual exchange environment to the teachers' professional development, the participants highlighted a number of points. The use of technology facilitated interaction with peers and allowed them to share their professional experiences. These experiences changed and developed teachers' perspectives which led to teachers' professional development. Due to interaction with peers, a fine-grained approach to teaching practices was developed. Additionally, teachers were given opportunities to reflect on their teaching practices by watching the recorded videos. The recorded video and virtual environment provided the participants with a safe zone where they could articulate meaningful dialog and learn from a critical friend. It is proven by this study that teachers are willing to articulate their thoughts, comments, and feedback

on teaching practices. Also, the video was assumed as a helpful self-development tool that provided teachers with an opportunity to develop their reflective skills. The videos acted as a catalyst to reflect on teaching and led to re-addressing educational challenges in new ways.

This finding is supported by the social cognitive theory, which suggests that individual knowledge is developed through observation of others through social interaction (Bandura, 1991). After watching the recorded videos, peer comments were “contextualized” since they corresponded to specific video segments (Shek et al., 2021). In general, teachers pointed to the supportive environment of online learning. This provided peers with feedback and evaluation. The supervisor also monitored the learning process and provided the participants with feedback and guiding advice through discussions (Lenkaitis, 2020; Pow & Lai, 2021). These findings are in accord with Straková and Cimermanová’s (2018) study that asserted that peer evaluation is a tool with which to have a critical look at peers teaching and also receive critical comments on their practice.

Furthermore, teachers believed that reflective journals made them think longer about what they have done. This line of reasoning is supported by Farrell’s (2014, 2019) remarks who asserted that the act of writing itself is beneficial and prompt teachers to pause and reflect on their idea and practices, which makes them think about their teaching. This stance can be corroborated by Zulfikar and Mujiburrahman’s (2018) idea which proved that teachers would develop professionally as a result of reflective journal writing. They regarded reflective notes as a tool that improves teacher practices in class.

Teachers were able to bridge theory to practice through reflection (Lenkaitis, 2020). As highlighted by Alles et al. (2019), new pedagogical knowledge can be developed through positive conversation and discussion culture. These virtual exchanges and discussions consolidated learning and teaching theories and put theory into practice among teachers.

Conclusion and Implications

Results of this study corroborate the significance of virtual exchange programs in teacher professional development in general and reflective practices in particular. The immersive, embodied experience of watching the recorded video session followed by peer discussion and evaluation appears significant through which teachers could re-experience their teaching practices regardless of space and time. This provides the participants with the agency to determine where and what to engage (Walshe & Driver, 2019). This provides ‘situatedness’ (Gibson, 1977), which facilitates teachers’ reflection on their teaching practice and facilitates peer evaluation (Craig et al., 2018). Moreover, teachers were an observer and analyzed other teachers’ practices, but they also had an active agency in the learning process by generating and analyzing their practices. This study has implications for higher education practice within the country. Furthermore, this research explored the possible contribution of these virtual exchange programs to teachers’ professional development.

This study was not without limitations. This small case study is limited in time scale. Further research to explore teaching recorded video over a longer period of time is needed. As highlighted by Ibrahim-Didi (2015), in providing more nuanced situated

learning, the use of 360-degree video is suggested to be beneficial in developing reflective practices. Thus, future research would benefit from exploring how 360-degree video might benefit teachers in reflective practices.

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