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Peer Observation, Reflection, and Expert Feedback: Pre-Service EFL Teachers' Online Teaching Vocabulary to Young Learners

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Abstract

The objective was threefold: (a) to investigate the difference among online teaching performance of EFL student teachers at Iran University of Science and Technology who received peer feedback, expert feedback, and reflected on their own teaching practice; (b) to examine the difference between rating scores given by student teachers and those by instructor to online teaching; and (c) to determine student teachers' best experiences, challenges, and lessons they learnt from expert feedback, peer observation, and reflection. The results of this mixed methods experimental research revealed no statistically significant difference in the three group's scores on their second teaching practice; however, there was statistically significant difference between the scores of the first and second practices for all three groups. The results also showed that student teachers mostly underrated their first teaching, while they overrated their second teaching. The findings also indicated that their best experiences were related to using technological tools, working with Adobe Connect, making interesting materials, and using games and songs. Their challenges included lack of face-to-face communication, engaging all participants, and preparing suitable materials, whereas teaching new vocabulary in context, simplifying songs by pre-teaching their unknown words, and using online games and websites were the lessons they learnt.

Keywords: expert feedback, online teaching, peer observation, rating scale, reflection

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1. Introduction

Educational institutions at different levels have taken various measures to provide constant professional development (PD) to improve teacher quality (Borg, 2015). It is argued that PD is crucial to support online teachers in gaining essential competencies, using new pedagogies, evaluating new educational roles, and reconstructing their professional persona in online learning classes (Baran & Correia, 2014). In addition, the quality of innovative teacher education programmes is intensely associated with how approaches to PD respond to online teachers' needs (Baran & Correia, 2014). Three effective approaches to online teacher PD are regarded as peer observation, reflective teaching, and expert feedback.

Peer observation of teaching, according to Eri (2014), is a reciprocal process in which a peer observes another's online teaching classroom or their teaching resources, such as lesson outlines and assignments. Bell (2005) states that peer observation is usually performed as a reciprocal activity, since its main focus is on helping peers improve their teaching. Cosh (1998) and Fullerton (1999) also assert that in peer observation of teaching, both teachers are asked to reflect on their teaching practice to share their experiences and improve their teaching. It is also argued that as higher education institutes and universities have long encompassed the practice of using peer observation to boost instructors' performance, peer observation of online teaching can play a key role in academic development (Pagani, 2002). In addition, peer observation of teaching is endorsed as an effective approach to improving teaching quality (Chism, 2007; Yiend et al., 2014) and is emphasised by several institutes and universities (Lomas & Kinchin, 2006).

The second approach was reflection or reflective teaching through which teachers consider where they are now and then choose where they intend to reach in the near future (Farrell, 2012). According to Weber et al. (2018), video-based reflection can have several advantages for online teachers, including noticing points they do not remember, focusing on several issues while reflecting, evaluating their teaching, and identifying gaps between their views of teaching and their actual teaching performance. In a teaching practicum, teachers can use videos as a tool to help reflect on their teaching and to receive comments from experts or peers (Lee & Wu, 2006; Weber et al., 2018). The third approach to pre-service PD was expert feedback, which can provide pre-service teachers with a deeper principal lens for analyzing and observing classroom interactions and events (Santagata & Angelici, 2010). Through expert feedback, student teachers can take advantage of experts' deeper reasoning and knowledge-based observations (Wolff et al., 2017). In addition, student teachers can probably create knowledge networks for more effective interpretation and analysis of classroom situations and events (Petersohn & Comeaux, 1987). It is also found that expert feedback along with video-based analysis can promote pre-service teachers' professional conceptions (Weber et al., 2018).

Some studies have examined the effect of online peer observation on teaching performance (Farrell, 2011; Walker, 2015) and others have investigated the effect of expert feedback on

professional views about classroom management (Ma et al., 2018; Ozogul et al., 2008; Prilop et al., 2021; Weber et al., 2018). In addition, a number of researchers (Burhan-Horasanlı & Ortaçtepe, 2016; Cirkovic-Miladinovic & Dimitrijevic, 2020; Farr & Riordan, 2015) have traced teachers' reflective practices in online modes. However, there seems to be no study investigating the impact of peer observation, reflection, and expert feedback on pre-service EFL teachers' online teaching vocabulary to young learners. The purposes of this study were thus to investigate the difference among online teaching performance of EFL student teachers who received peer/expert feedback or did reflection on their own teaching; to examine the difference between rating scores given by the instructor and the student teachers on the online teaching practice; to determine student teachers' best experiences, their challenges, and the lessons they learnt from expert feedback, peer observation, and reflection. The research questions that guided the study were as follows:

1. Is there any significant difference among online teaching of student teachers who received peer feedback, expert feedback, and those who reflected on their own teaching?
2. Is there any significant difference between the rating scores given by the instructor and those given by pre-service teachers in the reflection and peer observation groups?
3. What are student teachers' best experiences of teaching language online to young learners?
4. What are pre-service teachers' challenges of teaching vocabulary online?
5. What are the lessons student teachers learnt from expert feedback, peer observation, and reflection?

2. Review of the Related Literature

2.1. *Online Teacher Professional Development*

To meet the instructional and academic requirements of online teachers, their improvement and quality in online teaching require well-planned, high-quality PD (Adnan, 2017). Moreover, the move to online instruction demands teachers to re-evaluate their pedagogical conceptions and practice (Solomon & Schrum, 2007). While any innovation in education, including online teaching can be successful based on how well teachers deal with new ideas and implement them in online classes (Comas-Quinn, 2011), Kim (2012) found that student teachers seem not to understand how to incorporate technological tools into their teaching practice to develop meaningful learning activities.

To create successful online teaching, teachers need to use new teaching skills and strategies and strengthen their presence and interaction (Adnan, 2018). Successful online teachers also need to consider various teaching styles; combine various online roles of co-learner, trouble-shooter, and administrator; and apply new online teaching skills and strategies (Hauck & Stickler, 2006). However, Tearle and Golder (2008) found that student teachers cannot choose a way of using technological knowledge and experience in their teaching just through observing experienced

teachers' technology use. For example, hands-on experiences would enable them to sharpen their skills and gain confidence in integrating technology into their teaching (Yang et al., 2020). Moreover, collaborative discourse can happen when student teachers collaborate with peers and experts to exchange views about best teaching practices and to reduce their online teaching challenges (Kuure et al., 2016; Yang et al., 2020).

Various approaches are used to improve the quality of teachers' PD. The most traditional approach was inviting experts to teach theoretical and practical points using a face-to-face medium (Zhang et al., 2017). Brandt (2006) however suggests that teacher education programmes should change an expert-directed transfer approach into an exploratory approach, encouraging autonomy as well as critical reflection. It is clear that advanced levels of training and support are required for transition to online teaching (Bates, 2000). In this new approach, trainees are allowed to interact with peers or instructor in the online courses at favorable time and place (Al-Balushi & Al-Abdali, 2015; Salehizadeh et al., 2020). In addition, learning from interaction with colleagues through critical friendships is regarded as a way in which teachers can acquire new skills and knowledge (Wennergren, 2016).

Research on teacher preparedness to work with young learners indicates that graduate English language teachers are not sufficiently proficient in strategy use to concurrently support young learners' language development and needs (Waxman & Téllez, 2002; Webster & Valeo, 2011). Author (2019) investigated pre-service teachers' perceptions and challenges of technology use in classes of young learners and found a positive tendency for technology integration into English language classes of young learners despite teachers' lack of adequate technological and pedagogical knowledge for such change. In addition, according to Wang and Hoot (2006), learning and development of young learners can be facilitated by an effective use of information and communication technology.

2.2. Peer Observation

Active involvement in critical reflection, instructional theory and discourse, and cooperation with colleagues are required for gaining an insight into what constitutes effective teaching and real improvement (Hammersley-Fletcher & Orsmond, 2004; Peel, 2005). As noted by Luchoomun (2007), if teachers are provided with opportunities to collaborate on continuous periods of time, they can achieve considerable outcomes, such as improved attitudes and leadership, professional interactions, and improved teaching quality. Classroom observation, peer coaching, peer review of teaching, peer reflection of teaching, and peer-supported teaching development are used as the synonyms of the term peer observation (Gosling, 2002; Kell, 2005; Shortland, 2004). Feiman-Nemser (2001) argues that colleagues can develop collaborative learning by actively participating in a cohesive academic learning community. Donnelly (2007) notes that peer observation atmosphere should be supportive of risk-taking and open debate. According to Bennett and Santy

(2009), peer observation in online teaching offers a window on students' practice by which teachers can enhance awareness of what functions in online learning environments and deepen their understanding of online teaching and learning processes. In addition, Harper and Nicolson (2013) argue that an online peer observation can improve language-teacher creativity and positivity in synchronous online classrooms. It is also stated that peer feedback can promote self-reflection because student teachers display more trust in each other and as a result, shortcomings are addressed more openly (Topping, 2005). Some researchers (e.g., Bennett et al., 2010; Harper & Nicolson, 2013; Walker, 2015) have found that online peer observation can help as a vehicle for PD and contribute to significant learning benefits for online teachers.

Numerous researchers have studied peer observation from various aspects, ranging from the perspectives of teachers involved in the process of peer observation (Bell, 2001; Cosh 1998), through the benefits and practicalities of using peer observation (Jarzabkowski & Bone, 2006; Martin & Double, 1998), and to review of the ways the perceptions of academics impact the ways they work (Hammersley-Fletcher & Orsmond, 2004). However, it has been argued that effective approaches are the ones designed to facilitate supportive and collaborative participation (Harper & Nicolson, 2013). It has also been found that technology-enhanced peer evaluation and mentoring may improve teaching outcomes and strengthen the results of summative evaluations required for promotion and tenure processes (Angelique et al., 2002; Hammersley-Fletcher & Orsmond, 2005).

Gosling (2002) developed a useful classification of peer observation schemes in terms of evaluative, developmental, and collaborative models with various objectives. An evaluative model aims at identifying underperformance and confirming the probation, promotion, appraisal, assessment, and quality assurance; while the developmental model is used in initial training in order to develop teaching competencies. The collaborative model, on the other hand, aims to improve teaching through self and mutual reflection, dialogue, and involvement in discussion and elaboration. The collaborative model is related to shared views and attitudes in which the relationship among peers is genuine wherein dialogue and discussion about practice may result in mutually effective development (Motallebzadeh et al., 2017).

2.3. Reflective Teaching

Reflection is considered a significant factor to enhance teaching quality and a main component of teacher education programmes (Tripp & Rich, 2012). Reflective teachers, according to Griffiths (2000), critically monitor teaching practices, think about some ideas for improving their performance, and puts their insights into practice. As Sellars (2014) states, there are some models of reflection as practical, technical, and critical reflection. Reflection is divided into three inter-related sequential classifications of reflection-on-action, reflection-for-action, and reflection-in-action (Farrell, 2012). According to Schon (1983), in reflection on action, teachers think back on their previous teaching practices and examine them to determine alternative ways to reach better

results in the future. However, reflection-in-action is referred to as teachers' conscious reflection and modification during the teaching performance (Hatton & Smith, 1995). For teaching and teacher education, reflection in action offers new insights into the pedagogical reasoning and illustrates why teaching is so much more than simply the act of doing (Brandenburg et al., 2017). Whereas reflection in-action and on-action relates to present and past teaching experiences, Van Manen (1991) suggests a third classification of reflection as reflection-for-action, which is concerned with reflection before teaching or anticipatory reflection.

According to Dimitrijevic (2014), one of the objectives of teacher education programmes is to help teachers become more independent and accept responsibility for adopting self-directed teaching in their future performance. However, some researchers (Abrahamson & Chase, 2015; Ng & Tan, 2009) have argued that through effective communication with others, collaboration indicates a significant role in gaining various viewpoints in the process of active reflection. Loughran (2002) also views reflection as a highly social activity. Reflection as a key part of self-study, according to Byrne et al. (2010) can improve both individual and group learning.

As Senese (2005) states, to be really reflective practitioners, teachers need to consider their practices and outcomes, which can lead to improvements in their understanding, attitude, and practice. Teachers as evaluators and self-evaluators experience teaching and learning problems and need to become more conscious of students' needs and challenges of language learning (Cirkovic-Miladinovic & Dimitrijevic, 2020; Malmir & Mohammadi, 2018). Hence, to engage pre-service teachers in reflection, teacher educators need to offer adequate opportunities for reflection in teacher education sessions (Lee & Wu, 2006). It is also argued that a successful teacher preparation programme involving experiences of technology integration can indicate actual classroom events, leading to development of reflective practices (Sert & Li, 2017).

2.4. Expert Feedback

Feedback refers to a supportive instructional scaffolding element improving pre-service teachers' competence by encouraging deeper reflection (Heitzmann et al., 2018). It is also regarded as a central activity in all kinds of professional contexts to improve teaching performance (Skovholt, 2018). Feedback, according to Narciss (2008), consists of tutoring and evaluative components. Tutoring feedback enables learners to dynamically create meaning, monitor, and regulate their endeavors, resulting in deeper learning; while evaluative feedback has a cognitive function at the task level (Hattie & Timperley, 2007). Tutoring feedback also has a metacognitive function, because it provides learners with self-regulatory and processing skills for performing future tasks (Hattie & Timperley, 2007).

Apart from receiving feedback from peers, one can also obtain constructive feedback from more knowledgeable individuals, including experts (Weber et al., 2018). It is argued that expert feedback can result in significant improvements in teaching performance (Yang et al., 2006). In

addition, since accuracy of peer feedback is sometimes under question, expert feedback is still more readily adopted (Weber et al., 2018). However, time and location constraints often limit incorporating expert feedback (Lee & Wu, 2006). It is found that video-based learning can support receiving feedback from experts without considering limitations of time and location (Prilop et al., 2020) and has been used in education programmes offered to pre-service teachers (Lee & Wu, 2006; Weber et al., 2018).

Given the differences between novice and expert teachers, novices more often only describe classroom events, whereas experts prefer to evaluate and analyse the events (Wolff et al., 2015) and create deeper insights (Lee & Wu, 2006). Because of their deep knowledge of classroom management, experts are shown to make more accurate interpretations of the activities they perceive (Wolff et al., 2017). Lee and Wu (2006) recommend that prospective teachers receive adequate constructive feedback during their teaching practices, since both peer and expert feedback can create positive effects on their performance development.

2.5. Online Teaching Vocabulary to Young Learners

It is argued that a key strategy for facilitating reading achievement is to enable children to improve their functional reading vocabulary (Fehr et al., 2012). Vocabulary plays a significant role in comprehending oral language and developing domain-specific knowledge and reading comprehension (Marulis & Neuman, 2010). For learning vocabulary, motivating young learners and catching their interest are important, because they tend to learn less if they do not enjoy the new lessons (Hasram et al., 2020). Using technologies as auditory and visual aids is found to influence effective development of language knowledge for young learners (Verhallen & Bus, 2010). Young learners are considered digital natives who are more fluent in using technology; hence, considerable emphasis should be given to gamified learning in their classes (Chapman & Rich, 2018). Research on young learners' incidental vocabulary learning via digital games has been increased. For example, Utku and Dolgunsöz (2018) found that online vocabulary games can foster students' motivation. Ashraf et al. (2014) also state that through using online games teachers can create a fun learning experience and enhance young learners' interest in the learning process.

Online games have some other advantages as well. For example, they can help young learners acquire academic lexical knowledge (Hasram et al., 2020, Iravi & Malmir, 2022). Moreover, gamification elements can specifically help them receive meaningful learning activities and obtain favorable learning outcomes (Talib et al., 2016). Yip and Kwan (2006) used online games for teaching English vocabulary and concluded that digital educational games should be added to conventional activity-based lessons. Having investigated using online games as a language learning tool, Wood (2001) also found that online games could be more successful in fostering learners' motivation and interest than traditional materials, including textbooks.

Using multimodal approaches has recently gained considerable attention, and numerous recent studies have focused on using multimedia software, online dictionaries, and computerised glosses to improve incidental vocabulary learning (Butler, 2019). For example, using computer glosses for reading was found to result in improved vocabulary learning compared to print dictionaries for first and second language learners (Chun & Plass, 1996; Li, 2010). A recent meta-analysis also indicates that computer glosses can be highly effective in facilitating both vocabulary development and reading comprehension of second language learners (Abraham, 2008).

3. Method

3.1. Participants

The participants were 45 MA students of TEFL at Iran University of Science and Technology (IUST). They were 31 (68%) female and 14 (31%) male student teachers with the age range of 23 to 40 years old. It is worth noting that all participants were passing the teaching methodology course in which they were randomly divided into three groups of peer observation ($n=15$), self-reflection ($n=15$), and expert feedback ($n=15$). Considering ethical issues, the instructor of the course obtained informed consent from the participants of this research via WhatsApp.

3.2. Instruments

The researchers used a highly structured observation to help student teachers know what to look for, compare one situation with another, and have observation categories in advance. In addition, non-participant, two event, indirect observation was selected, and video observation was used because of its several benefits. Having reviewed the literature on online teaching vocabulary to young learners, the researchers developed a rating scale to enable participants in each group to assess the videos of teaching practices by giving score and feedback using the indicators defined for online teaching vocabulary to young learners (See Appendix). The rating scale encompassed 40 indicators in terms of five categories of organization (9 indicators), content (5 indicators), interaction (7 indicators), use of technological tools and sources (6 indicators), and teacher's characteristics (13 indicators). Four questions were also added to the end of the rating scale asking participants to make comments about each indicator, name the indicators which worked well, state the problematic areas of online teaching, and make suggestions for improvement. Three open-ended questions were also developed to explore their best experiences of online teaching vocabulary to young learners, the challenges of their teaching experience, and what they learnt from comments received on their teaching practice.

Having reviewed the literature on online teaching vocabulary to young learners, the categories of the rating scale were elicited and edited by the researchers several times to be exclusive, comprehensive, relevant, observable, unambiguous, and easy to record. In other words,

content validity was used for developing the rating scale. The final version of the rating scale was then shared with student teachers via LMS, and one session was also devoted to instructing them on how to use the indicators of the rating scale in terms of three categories of 1=poor, 2=good, and 3= excellent. In addition, to enhance the reliability of using the scale, the indicators were used fully, consistently, and with no variation in interpretation. As stated before, there were 40 indicators in the rating scale, and the total score was considered 120.

3.3. Procedure

This research was conducted during the first semester of the academic year 2020-2021. Learning Management System (LMS) of IUST was used during this study. The teaching materials and research files were uploaded to LMS, and all students had access to them. At the very beginning, theories of face-to-face and online teaching vocabulary to young learners were taught by the first researcher who was teaching the course of teaching methodology to student teachers. After that, two sessions were allocated to teaching them how to use Adobe Connect and becoming familiar with all features available on the platform. They were then randomly divided into three groups, and the dates of their first and second practice were uploaded to LMS while requesting them to prepare their lesson plans for a 15-minute teaching vocabulary to young learners. Each student teacher in the peer observation group was also informed of the name of their peer. The instructor also explained the activities student teachers were required to perform in the three groups of peer observation, self-reflection, and expert feedback.

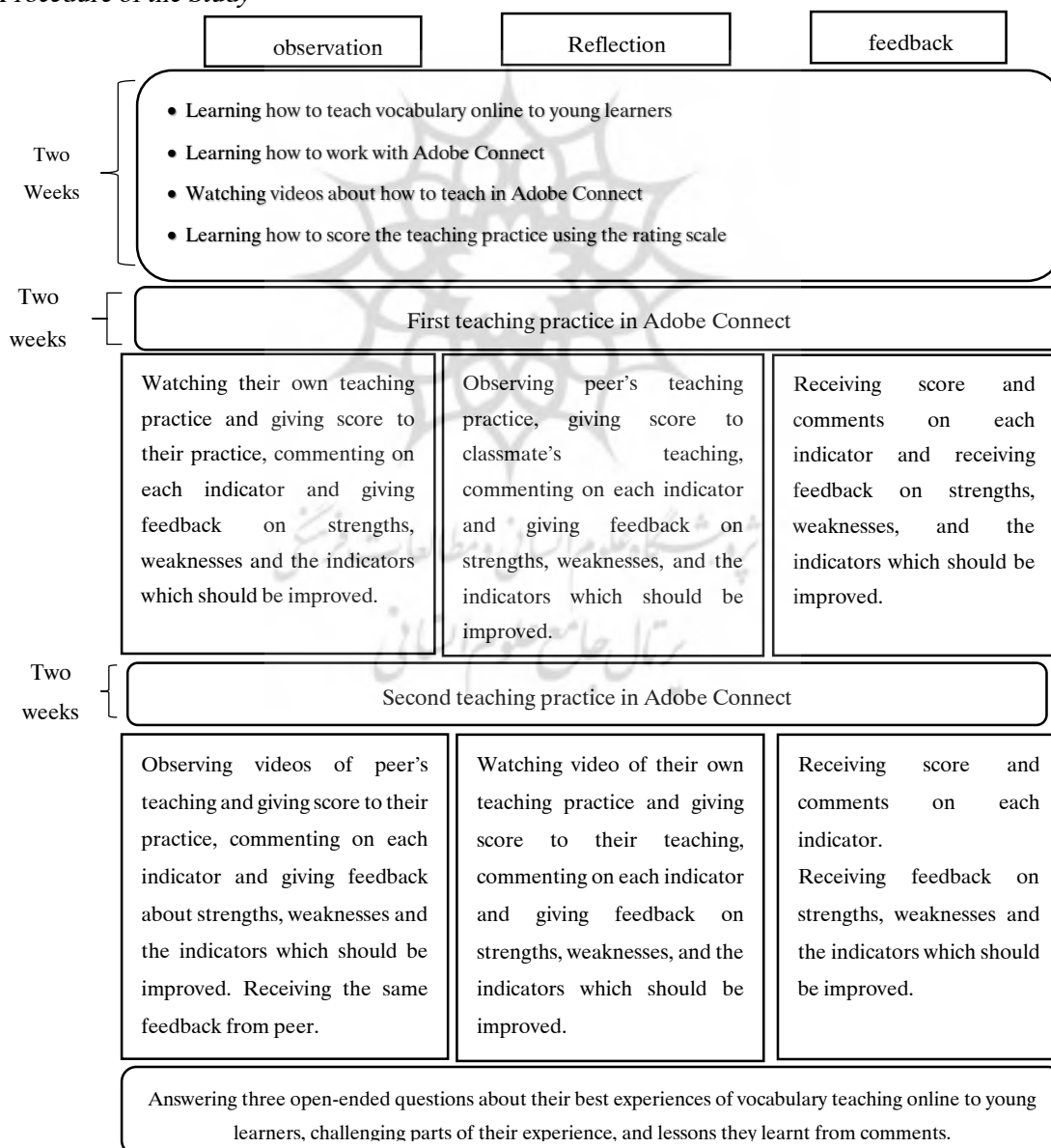
The student teachers were required to perform two online teaching practices. For each teaching session, the instructor opened Adobe Connect 20 minutes before starting the class to help them upload their teaching materials. In each session, five individuals could do their teaching practice, and the videos of their practice were uploaded to LMS for observation and further analysis after one week. Each student teacher in peer observation group observed his/her peer's teaching practice and filled out the rating scale by giving score to peer's performance, giving comments on each indicator, and answering the questions at the end of the scale. Participants in reflection group, on the other hand, watched the videos of their own teaching practice, filled out the rating scale by giving score to their own performance, giving comments on each indicator, and answering the questions. At the same time, the instructor of the course observed the videos of those in the expert feedback group, filled out the rating scale through giving feedback and score to their performance. Participants in the peer observation group sent the files to their classmates through WhatsApp, while those in the reflection group uploaded the files to LMS and student teachers in the expert feedback group received the files from the instructor via email.

In the next step, they were asked to be prepared for the second teaching practice based on the feedback they received. Again, peer observation group filled out the rating scale for the second teaching practice of their peers, while the reflection group filled out the rating scale for their own

teaching and the instructor filled out the rating scale of the students in the expert feedback group. Finally, three open-ended questions were administered to participants of all three groups in order to investigate their best experiences of online vocabulary teaching, challenging parts of their experience, and lessons they learnt from comments they received. Due to the fact that having more than one observer would be useful for triangulation and reliability (Barrett & Mills, 2009), both researchers observed the video files of all student teachers' first and second teaching practices and used the rating scale to give them scores. Then, the scores were compared with those given by the participants in peer observation and reflection groups. It should be added that because of the time limitation, only two trials were held.

Figure 1

Procedure of the Study



3.4. Data Analysis

One-way analysis of variance (ANOVA) was performed to compare scores of first and second teaching practices for the three groups of peer observation, reflection, and expert feedback. In addition, paired samples *t* test was computed to compare the effect of peer observation, reflection, and expert feedback on student teachers' second teaching practice. Conventional content analysis was also conducted to identify patterns in their responses. In other words, the researchers coded words, themes, and concepts and then analysed the results obtained from the open-ended questions. According to Cohen et al. (2018), after performing the first round of coding in content analysis, the researchers can detect patterns and themes and begin making generalizations by counting the frequencies of codes. Hence, having identified the themes in the qualitative data, the researchers provided the frequencies of each theme.

4. Results

4.1. Comparing Effect of Peer Observation, Reflection, and Expert Feedback on EFL Student Teachers' Online Teaching Performance

To answer the first research question, the normality of participants' scores in the first and second practice was examined. Shapiro-Wilk and Kolmogorov-Smirnov statistic for both first and second practice of all three groups was not significant ($p > .05$), indicating that the distribution of their teaching scores was found to be normal. Hence, a paired samples *t* test was performed to compare the first and second teaching practices of all three groups. The descriptive statistics of the three groups' scores on their first and second practice were computed, and the results are presented in Table 1.

Table 1

Descriptive Statistics of Three Groups' Scores on First and Second Online Teaching Practices

Groups	Online Teaching	<i>M</i>	<i>SD</i>
Peer observation	First practice	92.73	14.13
	Second practice	102	10.32
Reflection	First practice	94.13	7.20
	Second practice	102.60	5.35
Expert feedback	First practice	99.60	6.81
	Second practice	106.86	6.62

As highlighted in Table 1, all three groups' teaching practice improved from first to second practice, since the mean gained in the second practice was greater than that of the first practice ($M_{first} = 92.73, 94.13, 99.60$; $M_{second} = 102, 102.60, 106.86$). Paired-samples *t* test was run for each

group to determine whether these changes were statistically significant or not. The results are provided in Table 2.

Table 2*Paired Samples t test*

		<i>M</i>	<i>SD</i>	<i>SD</i> Error Mean	Paired Differences		<i>t</i>	<i>df</i>	<i>p</i>
					Lower	Upper			
Peer observation	first- second	9.26	9.39	2.42	-14.17	-4.06	-3.81	14	.002
Reflection	first- second	8.46	6.83	1.76	-12.25	-4.67	-4.79	14	.000
Expert feedback	first- second	7.26	3.03	.78	-8.94	-5.58	-9.27	14	.000

As shown in Table 2, there was statistically significant difference in teaching performance in peer observation group from first to second practice, $t(14)=3.81$, $p = .002$, and the mean increase in this group was 9.26 with a 95% confidence interval, ranging from -14.17 to -4.06. The eta squared statistic (0.50) for this group indicated a large effect size. Table 2 also indicates that there was statistically significant difference in the performance of reflection group from first to second practice, $t(14)=4.79$, $p=.000$, and the mean increase in this group was 8.46 with a 95% confidence interval ranging from -12.25 to -4.67, and the eta squared statistic (0.62) for this group indicated a large effect size. As also highlighted in Table 2, there was statistically significant difference in student teachers' online teaching performance in expert feedback group from first to second practice, $t(14)=9.27$, $p = .000$, and the mean increase in this group was 7.26 with a 95% confidence interval ranging from -8.94 to -5.58. In addition, the eta squared statistic (0.68) for this group indicated a large effect size. Given the results, it could be stated that peer observation, reflection, and expert feedback were effective in improving student teachers' online teaching performance.

4.2. Comparing Student Teachers' First Teaching Practice

One-way ANOVA was conducted to determine whether there was statistically significant difference among the participants' scores in their first teaching practice. First, descriptive statistics of the first practice for all three groups were computed. The results are provided in Table 3.

Table 3*Descriptive Statistic of Student Teachers' Scores on First Teaching Practice*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SD</i> . Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Peer Observation	15	92.73	14.13	3.65	84.90	100.56	50.00	108.00
Reflection	15	94.13	7.20	1.86	90.14	98.12	80.00	107.00
Expert Feedback	15	99.60	6.81	1.75	95.82	103.37	80.00	109.00
Total	45	95.48	10.19	1.51	92.42	98.55	50.00	109.00

As indicated in Table 3, the highest mean for the first teaching practice belonged to the expert feedback group ($M=99.60$), followed by the reflection group ($M=94.13$) and peer observation group ($M=92.73$). Table 3 also shows that scores obtained by participants in the expert feedback group were the most homogeneous ($SD=6.81$), while those for peer observation group were the most heterogeneous ($SD=14.13$). To determine whether the mean differences were statistically significant or not, one-way ANOVA was performed. Table 4 shows the results of this analysis.

Table 4
One-Way ANOVA for First Teaching Practice

	Sum of Squares	df	Mean Square	F	p
Between Groups	394.978	2	197.489	1.986	.150
Within Groups	4176.267	42	99.435		
Total	4571.244	44			

As Table 4 indicates, there was no significant difference in the first teaching practice scores of all three groups: $F(2, 42)=1.98$, $p=.15$, indicating that student teachers in the three groups had similar performance. The effect size, calculating eta squared was .08, which was quite small.

4.3. Comparing Student Teachers' Second Teaching Practice

To explore differences among the participants' performance on their second teaching practice, a one-way ANOVA was conducted. First, the descriptive statistics of the scores on the second teaching practice for all three groups were computed, and the results are provided in Table 5.

Table 5
Descriptive Statistics of Participants' Scores on Second Teaching Practice

	N	M	SD	SD Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Peer Observation	15	102.00	10.32	2.66	96.28	107.71	83.00	118.00
Reflection	15	102.60	5.35	1.38	99.63	105.56	91.00	111.00
Expert Feedback	15	106.86	6.62	1.70	103.20	110.53	87.00	116.00
Total	45	103.82	7.86	1.17	101.46	106.18	83.00	118.00

As shown in Table 5, the mean with the highest value was obtained by the expert feedback group ($M=106.86$), whereas the mean with the lowest value was related to both peer observation and reflection groups ($M=102$). Table 5 also highlights that student teachers' scores in the reflection group were the most homogenous ($SD=5.35$), while those for peer observation group were the most heterogeneous ($SD=10.32$). Additionally, to compare the performance of the three groups in their second teaching practice, a one-way ANOVA was used. Table 6 indicates the results of this test.

Table 6*One-Way ANOVA for the Second Teaching Practice*

	Sum of Squares	df	Mean Square	F	p
Between Groups	211.24	2	105.62	1.769	.183
Within Groups	2507.33	42	59.69		
Total	2718.57	44			

As indicated in Table 6, there was not any statistically significant difference in the mean scores for all groups: $F(2,42)=1.76$, $p=.18$. The effect size computed using eta squared was .07, indicating a small effect size.

4.4. Rating Accuracy on First and Second Teaching Practices of Peer Observation and Reflection Groups

Student teachers in peer observation group gave score to their peer's first and second teaching based on the rating scale, whereas those in the reflection group gave score to their own teaching using the rating scale. In addition, the instructor gave score to both groups' first and second teaching practice. In each group, a comparison was made between the participants' score and that of their instructor. The results are presented in Tables 7 and 8.

Table 7*Comparing Scores of Instructor and Peer Observation Group on First and Second Teaching Practice*

		f	%	Valid %	Cumulative %
First Practice	Underrate	11	73.3	73.3	73.3
	Overrate	4	26.7	26.7	26.7
Second Practice	Match	1	6.7	6.7	6.7
	Underrate	7	46.7	46.7	46.7
	Overrate	7	46.7	46.7	46.7
	Total	30	100	100	100

As indicated in Table 7, most student teachers (73%) rated their peer's teaching practice lower on their first practice, whereas for the second practice, about half of them (46%) equally underrated and overrated their peers. Table 7 also shows only one match (6%), which was related to the second practice.

Table 8*Comparing Scores of Instructor & Reflection Group on First and Second Teaching Practice*

		f	%	Valid %	Cumulative %
First Practice	Underrate	12	80	73.3	73.3
	Overrate	3	20	26.7	26.7
Second Practice	Match	1	6.7	6.7	6.7
	Underrate	7	46.7	46.7	46.7
	Overrate	7	46.7	46.7	46.7
	Total	30	100	100	100

As shown in Table 8, participants (80%) mostly underrated themselves on their first practice, whereas about half of them (46%) underrated themselves on their second practice. Similar to peer observation group, one match (6%) was found in the second practice of reflection group. Table 8 also indicates that a few number of student teachers (26.7%) overrated themselves on their first practice, while about half of them (46%) overrated themselves on their second practice. As highlighted in Tables 7 and 8, the same percentage for match, underrate, and overrate categories of the second practice could be found for both groups.

4.5. Student Teachers' Best Experiences of Online Teaching to Young Learners

The third research question explored student teachers' best experiences of online vocabulary teaching, and the results are presented in Table 9. Peer observation group's best experiences included using technological tools ($n=7$), using colorful pictures and videos ($n=6$), using games and songs to involve young learners ($n=2$), and learning to use Adobe Connect ($n=2$). While reflection group's best experiences were related to being energetic and happy ($n=5$), using games and songs ($n=4$), learning to work with Adobe Connect ($n=3$), and using technological tools ($n=3$). Analyzing the answers of expert feedback group revealed that their best experiences included using games and songs to involve students ($n=4$), learning to work with Adobe Connect ($n=3$), making interesting materials ($n=3$), preparing appropriate assignments ($n=2$), and creating enjoyable atmosphere ($n=2$).

Table 9

Participants' Best Experiences of Online Teaching

What were the best things about your experience of teaching English to young learners online?		
Groups		
Peer Observation	Reflection	Expert Feedback
Using technological tools (46%)	Being energetic and happy (33%)	Using games and songs (26%)
Using colorful pictures and videos (40%)	Using games and songs (26%)	Learning to use Adobe
Using games and songs (13%)	Learning to use Adobe Connect (20%)	Connect (20%)
Learning to use Adobe Connect (13%)	Using technological tools (20%)	Making interesting materials (20%)
		Preparing appropriate assignments (13%)
		Creating enjoyable atmosphere (13%)

4.6. Challenges of Online Teaching Experience

The fourth research question investigated the challenging parts of participants' online teaching experience, and the results are provided in Table 10. Peer observation group stated that the challenging parts were related to engaging all students ($n=5$), lack of face-to-face communication ($n=4$), participants' distraction ($n=3$), and technological glitches ($n=3$).

Reflection group, on the other hand, indicated that the challenging parts of their practice included engaging all students ($n=5$), preparing suitable materials ($n=4$), participants' distraction ($n=4$), and technological glitches ($n=3$). Expert feedback group held the opinion that the challenging parts were concerned with participants' distraction ($n=6$), technological glitches ($n=5$), engaging all students ($n=4$), preparing suitable materials ($n=3$), and lack of face-to-face communication ($n=2$).

Table 10

Challenging Parts of Participants' Online Teaching

What part of the experience was challenging?

Groups

Peer Observation	Reflection	Expert Feedback
Engaging all students (33%)	Engaging all students (33%)	Participants' distraction (40%)
Lack of face-to-face communication (26%)	Preparing suitable materials (26%)	Technological glitches (33%)
Participants' distraction (20%)	Participants' distraction (26%)	Engaging all students (26%)
Technological glitches (20%)	Technological glitches (20%)	Preparing suitable materials (20%)
		Lack of face-to-face communication (13%)

4.7. Student Teachers' Lessons Learnt from Online Teaching Practice

The last research question explored the lessons student teachers learnt from online teaching vocabulary to young learners, and the results are provided in Table 11. Peer observation group stated that they learnt using colorful pictures, videos, and songs ($n=7$), using online games and websites ($n=6$), using whiteboard in Adobe Connect ($n=4$), using puppets and toys ($n=3$), and level adaptation ($n=3$). Reflection group, on the other hand, stated that they learnt using technological tools ($n=5$), using online games and websites ($n=4$), preparing appropriate assignments ($n=4$), teaching new vocabulary in context ($n=3$), and being patient while teaching online ($n=3$). Expert feedback group held the view that teaching new vocabulary in context ($n=7$), simplifying songs by pre-teaching the vocabulary ($n=6$), teaching limited number of vocabulary items in each session ($n=5$), and having logical pace ($n=4$) were the lessons they learnt from the teacher's feedback.

Table 11

Lessons of Online Teaching Experience

What did you learn from comments you received about online teaching vocabulary to young learners?

Groups

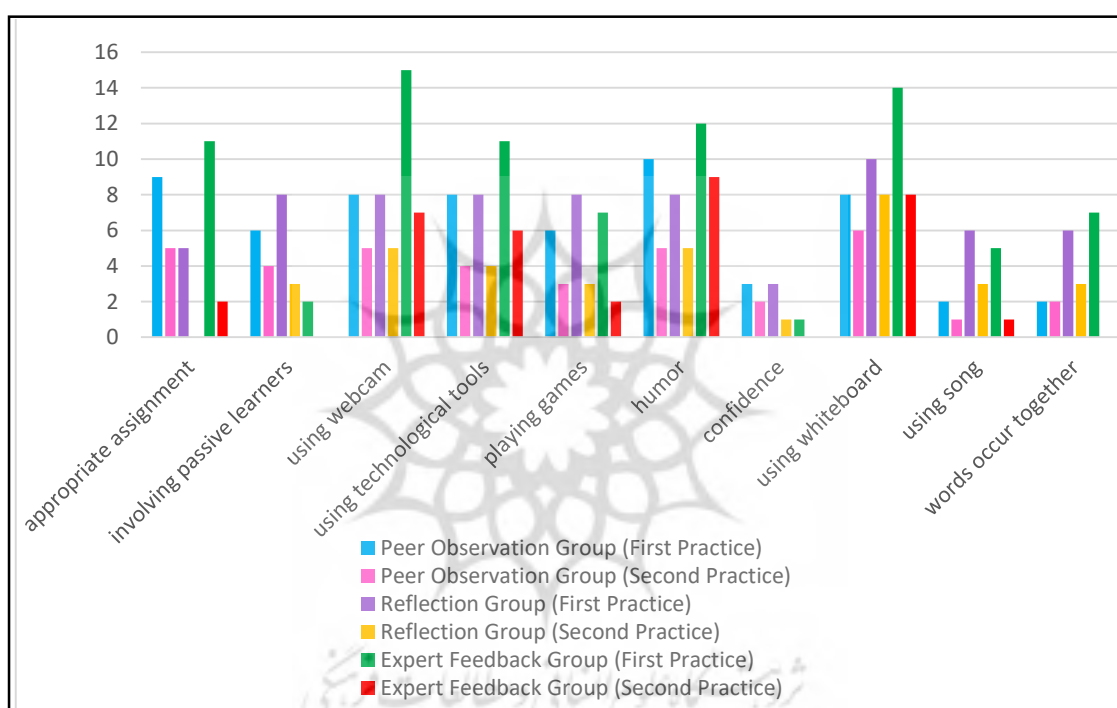
Peer Observation	Reflection	Expert Feedback
Using colorful pictures, videos, and songs (46%)	Using technological tools (33%)	Teaching new vocabulary in context (46%)
Using online games and websites (40%)	Using online games and websites (26%)	Simplifying songs by pre-teaching
Using whiteboard in Adobe Connect (26%)	Preparing appropriate assignments (26%)	Vocabulary (40%)
Using puppets and toys (20%)	Teaching new vocabulary in context (20%)	Teaching limited number of words in each session (33%)
Level adaptation (20%)	Being patient while teaching (20%)	Having logical pace (26%)

4.8. Student Teachers' Problematic Areas in their First and Second Teaching Practices

Student teachers in all three groups were asked to conduct two teaching practices and then consider some indicators and questions for analyzing their performance. One of the questions was related to their problems in the first and second teaching performance. Percentages of the problems were calculated, and the results are illustrated in Figure 2.

Figure 2

Student Teachers' Problems in First and Second Teaching



As highlighted in Figure 2, student teachers in all three groups performed better in their second practice because the number of problems decreased in their second practice. Considering teaching performance of peer observation group, sense of humor (66%) was the problem of most student teachers in the first practice, while using songs and showing what words co-occur were the problems of only few participants (13%). In their second practice, the highest number was obtained by using whiteboard (40%), while the lowest one was related to using songs (6%). With regard to the first teaching performance of reflection group, as shown in Figure 2, using whiteboard (66%) gained the highest number of problems, while having confidence (20%) received the lowest number. In their second practice, the highest percentage was received by using whiteboard (53%), while the lowest one was obtained by having confidence and using Adobe Connect (6%). As also shown in Figure 2, given first teaching performance of expert feedback group, using webcam was the problem of all student teachers (100%), while using Adobe Connect and having confidence received the lowest number of problems (6%). In their second practice, sense of humor gained the highest

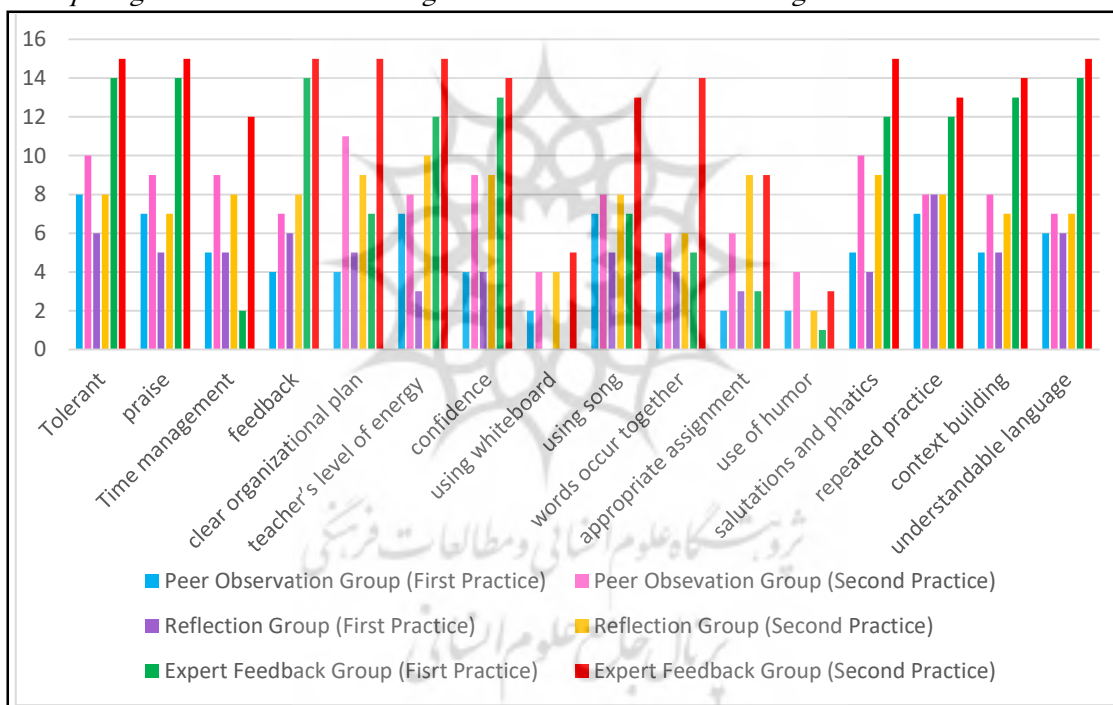
percentage (60%), while involving passive learners and showing what words co-occur received the lowest percentage (0%), indicating they could remove these two problems in their second practice.

4.9. Student Teachers' Well-Worked Indicators in First and Second Teaching Practices

Student teachers in peer observation group were asked to indicate the strengths of their peer's first and second teaching performance, while those in the reflection group needed to consider their own strengths. In the expert feedback group, on the other hand, instructor indicated the well-worked indicators for their two practices. Percentages of these indicators were computed, and the results are provided in Figure 3.

Figure 3

Comparing Student Teachers' Strengths in First and Second Teaching



As shown in Figure 3, with regard to strengths of peer observation group in their first practice, the highest percentage (53%) was gained by being tolerant, while the lowest one (13%) was received by three indicators of using whiteboard, preparing appropriate assignments, and sense of humor. In their second practice, clear organizational plan received the highest value (73%), while using whiteboard and sense of humor received the lowest one (26%). Figure 3 also highlights that in reflection group's first practice, the highest percentage (53%) was gained by repeated practice and repetition, while the lowest one (0%) was received by sense of humor and using whiteboard. In their second practice, the highest percentage (66%) was related to teacher's level of energy, whereas the lowest one (13%) was related to sense of humor. Given expert feedback group's first practice,

being tolerant and providing feedback, praise, and understandable language equally received the highest percentage (93%), while using whiteboard received the lowest one (0%). In their second practice, on the other hand, a number of indicators such as being tolerant; giving praise and feedback; understandable language, salutations and phatics; offering clear organizational plan; and teacher's level of energy received the highest percentage (100%), while sense of humor gained the lowest percentage (20%).

5. Discussion

The findings indicated that online peer observation could have a positive effect on pre-service teachers' PD. This may be because of the fact that student teachers had a good relationship with each other and could take their peers' criticism seriously to overcome the shortcomings of their first practice. This finding is in agreement with that of other studies (e.g., Bennett et al., 2010; Harper & Nicolson, 2013; Walker, 2015), indicating that online peer observation could help as a vehicle for PD and contribute to online teachers' improvement. The result also supports the idea of Harper and Nicolson (2013), emphasizing that an online peer observation project can improve language teachers' creativity and positivity in synchronous online classrooms. However, peer feedback is found to be a new experience to most individuals, including pre-service teachers (Alqassab et al., 2018), which can be problematic regarding correctness at the outset and can reach high level only with receiving education (Topping, 2017).

The results also revealed that reflective teaching could have a positive effect on student teachers' teaching improvement. It might be due to the fact that they observed their own teaching practice to fill out the rating scale, had to think about each indicator deeply, and think of ways to improve each indicator in their next practice. This matches well with the finding of Schon (1987), indicating that reflective practice as the discourse of doing and thinking through which professional expertise cultivates can be an influential tool for professional growth. Burhan-Horasanlı and Ortaçtepe (2016) also found that reflective practice can take advantage of the interaction of three reflection types, which result in positive outcomes. It is also emphasised that teacher educators provide numerous opportunities for reflection to motivate pre-service teachers for practicing reflection (Lee & Wu, 2006).

Expert feedback was also found to improve student teachers' online teaching performance. This might be due to the fact that the instructor could provide them with a more realistic understanding of online teaching and give them new insights into managing their online teaching. Additionally, student teachers welcomed the instructor's feedback and detailed comments on each indicator, leading to improvement in their second teaching practice. This finding is in line with that of Gold et al. (2013), indicating that expert feedback could provide an instructional support to guide pre-service teachers' practice. This result also substantiates that of Weber et al. (2018), showing that expert feedback with video analysis can foster pre-service teachers' conception of classroom

management. It is also argued that expert feedback can enable pre-service teachers to connect classroom events with skills and knowledge (Heitzmann et al., 2018). The results also showed no significant difference in the second teaching of all three groups. This might be due to the fact that student teachers might need more sessions of teaching practice to indicate significant changes. This finding was in contrast with that of Yang et al. (2006), indicating that expert feedback could lead to stronger improvement in teaching performance.

The results also showed that most student teachers in both peer observation and reflection groups could not rate their peers/themselves accurately and that the score they provided did not correspond closely with that of the instructor. This might be due to the fact that student teachers did not have any experience of rating online teaching practice. They may also think of being very strict to help classmates to indicate more noticeable improvement. However, the same number of participants in both groups underrated and overrated their scores in both practices, indicating that they became more accurate in filling out the rating scale and developing their way of rating. They also gained more information about the teaching process and made more accurate decision in their second practice.

The finding also indicated that one of the student teachers' best experiences of online teaching was using technological tools, which may be due to learners' engagement in their learning process while using technological tools. This result confirms the idea that online teaching requires teachers to have new skills, such as working with technological tools (Volery & Lord, 2000). Moreover, EFL teachers should be encouraged to apply technological tools to integrate new teaching strategies into their pedagogical practice (Kuure et al., 2016). Using games and songs to involve students was also found as the other best experience of student teachers, which might be because of their interest in playing games and repeating songs, leading to subconscious learning and better internalization of new vocabulary items. This finding corroborates with previous studies (Chapman & Rich, 2018; Iravi & Malmir, 2022; Kessler, 2018), emphasizing a growing necessity for gamified instruction for young learners. Ashraf et al. (2014) also argue that online educational games provide a fun learning experience for younger learners, increasing their interest in learning processes. Additionally, music and songs can encourage children to learn the second language and to strengthen their lexical memory (Davis, 2017).

The finding also showed that most student teachers emphasised that engaging all students was the challenge of their online teaching. This seems to be related to the reason that in online classes, most learners do not participate actively and tend to be silent. It can also be stated that student teachers' classes might be boring and not entertaining enough for all participants. This appears to be one major issue emphasised by a number of researchers (De Paepe et al., 2018; Kebritchi et al., 2017; Preece, 2004; Sun, 2014; Wenger et al., 2002), arguing that engaging all learners is one of the main challenges of online teaching. The other challenge was technological glitches, which are mostly related to slow and unstable Internet connection and poor infrastructure. This finding is in line with that of previous studies (Atmojo & Nugroho, 2020; Burston, 2014;

Cakrawati, 2017), indicating that if there are problems in technology access, good pedagogy cannot take place.

6. Conclusion

The study investigated the difference among online teaching performance of EFL student teachers in peer observation, expert feedback, and reflection groups and compared their rating scores and those given by their instructor. Each student teacher conducted two online teaching practice and their challenges, best experiences and the lessons they learnt were also explored. The findings showed that student teachers in all three groups improved their teaching practice. However, no significant difference was found in the second practice of all groups. The findings also revealed that the majority of scores given by student teachers did not correspond with those given by the instructor. It was also found that their best experiences were related to using technological tools, being energetic, and using games and songs, while their challenges included engaging all students, lack of face-to-face communication, and technological glitches. Using online games and websites, simplifying songs by pre-teaching vocabulary, and using puppets and toys were the lessons they learnt. In general, student teachers had positive attitude to online teaching vocabulary using Adobe Connect.

Theoretical concepts and issues of online teaching are usually taught in the teaching methodology course in some universities; however, it is argued that these theories need to be put into practice through using various platforms, such as Adobe Connect, Bigbluebutton, and Skyroom. This would also help student teachers not only enhance their pedagogical knowledge but also increase their technological knowledge, which are essential for their future performance. Providing pre-service teachers with hands-on experience and online teaching practice in their practicum can encourage them to present their best teaching practice and improve their online teaching performance. Moreover, developing an online environment in which student teachers feel safe to contribute their thoughts and ideas is essential to improve their PD. It is argued that all three approaches to pre-service online teacher development can be practiced by designing activities for all language skills and components. Hence, teacher educators should educate student teachers on how to do peer observation and reflective teaching and provide them with opportunities for practicing these approaches because through peer observation and reflection, they can think about the strengths and weaknesses of their teaching critically.

Future researchers can consider the impact of peer observation, expert feedback, and reflective teaching on the development of other components and language skills. They can also investigate whether conducting more teaching practices can lead to more improvement in student teachers' online teaching performance. Further research can examine the impact of these three PD approaches on in-service teachers' online teaching performance. Future researchers are also recommended to develop a rating scale with more indicators of online teaching practice, such as

teacher's knowledge and beliefs, classroom management skills, and strategies to foster learners' motivation and autonomy, investigating the impact of using these indicators on the improvement of teaching practice. The effectiveness of using other online PD approaches, including peer coaching, mentoring, and lesson study can also be taken into consideration in improving student teachers' online teaching performance. Future researchers can also use in-depth interview with pre-service teachers about their perceptions of the approaches to online teacher PD.



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Appendix. Rating Scale of Online Teaching

Organization	Content	Interaction
1. Salutations and phatic	10. Clear instruction	15. Feedback (Oral correction, recast...)
2. Warm-up activities	11. Understandable materials	16. Praise
3. Time management	12. materials appropriate to the online learning environment	17. Teaching words in context/ Context building
4. Logical pace	13. Giving multiple meaningful examples	18. Frequency of teacher's questions
5. Clear organizational plan	14. Showing what words occur together	19. Involving passive learners
6. Repeated practice and revision		20. Vocatives or use of names
7. Appropriate assignments		21. Good rapport with students
8. Teacher Talking Time (TTT)		
9. Student Talking Time (STT)		
Use of technological tools & sources	Teacher	
22. Camera view	28. Voice quality	1. You need to give a score to each indicator ranging from (poor=1, good=2, excellent=3).
23. Whiteboard	29. Teacher's fluency	2. You also need to give a total score to yours/your friend's teaching practice (maximum score = 120).
24. Using technological tools appropriately (e.g., websites, application, online quizzes)	30. Teacher's accuracy	3. In addition to score, you need to make comments about each indicator.
25. Using realia or visual aids, including puppets or colored pictures or visual presentation	31. Correct pronunciation and intonation	4. What indicators were worked well?
26. Games (e.g., online or traditional)	32. Facial expression	5. What were the problem areas?
27. Songs for memorization	33. Understandable language	6. Suggestions for improvement?
	34. Confidence	
	35. Use of humor	
	36. Concerned about student learning	
	37. Enthusiastic/teachers' level of energy	
	38. Tolerant	
	39. Creating a positive and comfortable learning environment	
	40. Appropriate use of the medium (Adobe Connect)	

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