# Teacher Candidate Reflection and Development Through Virtual Exchange

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## Abstract

This study examines the effects of a virtual exchange on twelve teacher candidates of a Teaching English to Speakers of Other Languages program. The teacher candidates participated in a 4-week virtual exchange with English as a Foreign Language learners from a university in Mexico. Throughout the exchange, the teacher candidates participated in conversational exchanges and subsequently analyzed and reflected on the errors produced by the English as a Foreign Language students and also the corrective feedback strategies they used during the sessions. The goal of the analysis and reflection activities was to help the teacher candidates develop their ability to identify such errors and apply appropriate corrective feedback strategies. The results indicated the teacher candidates' ability to identify errors increased throughout the exchange, suggesting changes to their development and perception of corrective feedback. These results add to the growing body of research about the value of using virtual exchanges in teacher preparation programs, a tool that may be particularly relevant during the current coronavirus global crisis.


*Keywords:* virtual exchange; learner autonomy; teacher preparation; corrective feedback; adult learners; language learning

Virtual exchange, a practice that partners students from two geographical locations through the means of technological tools, is an innovative instructional approach being used in higher education (Bohinski & Leventhal, 2015; Dorner, 2016). The term "virtual exchange" is synonymous with telecollaboration, online intercultural exchanges, and teletandem (O'Dowd, 2018). Sadler and Dooly (2016) discussed the increasing use of virtual exchange in language learning, and how it facilitates communication and promotes learner autonomy. However, the research on integrating virtual exchanges in teacher preparation programs is still growing (Lenkaitis, 2020; Dooly & Sadler, 2013; Jauregi & Bañados, 2008).

The current study focuses on teacher candidates in a Teaching English to Speakers of Other Languages (TESOL) program. In a 4-week virtual exchange, TESOL teacher candidates were partnered with English as a Foreign Language (EFL) learners. The weekly virtual exchange sessions gave the EFL learners access to a TESOL teacher candidate with whom they were able to communicate in English, while providing the teacher candidates opportunities to develop their pedagogy. The ability to work with an international partner to develop language and pedagogical skills via virtual exchange is a promising tool that can be valuable as the educational landscape changes and can address challenges such as the current coronavirus (COVID-19) global crisis. More specifically, this study examines how virtual exchange sessions created opportunities for TESOL teacher candidates to develop learner autonomy while learning to recognize and reflect upon EFL student errors and the corresponding corrective feedback (CF).

## Literature Review

### Virtual Exchange

Communication is a significant part of learning, especially in the language classroom. Holley and King (1971) discussed the importance of practicing communication in order to promote a "natural language learning context" (Cohen, 1975, p. 416), where learners are encouraged to speak and are only corrected for errors that impede communication. Communication and collaboration can be promoted through the use of technology such as videoconferencing (Fetterman, 1996) and other Web 2.0 tools (Greenhow, Robelia, & Hughes, 2009). Technology can also facilitate the formation of international partnerships amongst students (Spante et al., 2014) via a virtual exchange. In virtual exchange, a practice that pairs students in other contexts via technology, students can interact using the target language, and it can be used as an effective method for improving students' linguistic development (Ware & O'Dowd, 2008).

Virtual exchange projects have been carried out in English language learning (Austin et al., 2017; Rafieyan et al., 2014; Sevilla-Pavón, 2016) and there is a growing body of research on how to integrate virtual exchanges in teacher preparation programs (Lenkaitis, 2020; Dooly & Sadler, 2013; Jauregi & Bañados, 2008; The EVALUATE Group, 2019). In Lenkaitis (2020), participants in a teaching program from a university in the USA were partnered with second language (L2) learners in a 4-week virtual exchange via videoconferencing. TESOL teacher candidates explored the language that their L2 partners produced and utilized learned teaching techniques to interact with course content by watching their recorded sessions. Results revealed that teacher candidates developed their reflective practices and were able to bridge theory into practice. In Dooly and Sadler's (2013) study, student teachers from the USA were partnered with student teachers from Spain for two years via synchronous (real-time) and asynchronous (non-real-time) means. Results from these collaborations showed that student teachers recognized the possibilities that exist for L2 learning and teaching through technology, as well as the benefits of creating materials with other student teachers. In Jauregi and Bañados (2008),

teacher candidates of Spanish from a Chilean university partnered with L2 Spanish learners from a university in the Netherlands to participate in synchronous video sessions and asynchronous blogs. Analysis of the exchange and questionnaire data indicated that the exchange was beneficial. Not only did teacher candidates and students make connections to cultural topics, but it also allowed them to achieve course outcomes. The EVALUATE Group (2019) was the largest study of teacher candidates that were partnered in virtual exchanges to date. Over 1,000 teacher candidates from over thirty countries formed twenty-five partnerships with the goal of completing tasks that included developing curriculum and educational materials. Qualitative and quantitative results revealed that competences, such as digital-pedagogical, language, and intercultural, developed as a result of the collaboration.

In their review of virtual exchange studies, Akiyama and Cunningham (2018) expressed that only 13% of all studies have focused on partnerships between foreign language (FL) learners and native speaker (NS) teachers in training. Furthermore, only 20% of studies have centred around FL learners and non-native speakers (NNS). In this type of exchange known as an apprenticeship exchange, one group utilizes teaching strategies while the other group learns a foreign language. Therefore, the exchange is typically in the target language of the FL learners (Chaudhuri, 2011; Jauregi & Bañados, 2008). While Akiyama and Cunningham (2018) mentioned apprenticeship exchange as a typical configuration for a virtual exchange, this article focuses on a study whose participants consisted of teacher candidates that were both NS and NNSs of English.

**Learner Autonomy**

Because learner autonomy is encouraged by virtual exchange (Sadler & Dooly, 2016) and is a central concept of language teaching and learning (Benson, 2013; Holec, 1981; Little, 1998), this study focused on the learner autonomy of TESOL teacher candidates. Autonomous learners, such as the TESOL teacher candidates in this study, are fully responsible for the learning process including reflection and analysis to plan, monitor and evaluate learning (Little, 1998). Little (1998) discussed the importance of learner autonomy in language learning. According to Little (1998), there are three basic pedagogical principles to learner autonomy: learners must be involved in the learning process; learners must reflect and evaluate their learning; and learners must use the appropriate target language.

Self-assessment and reflection play a significant role in learner autonomy. Through reflection, learners can recognize the methods and strategies they use and, as a result, evaluate their learning, identify any problems and suggest solutions (Çakici, 2015). A teacher's role in a learner autonomous language classroom is different from a traditional teacher's role, in that teachers can be described as a facilitator of learning (Little, 1995). Teachers and students are partners working towards a common goal. Teachers teach their students how to learn by offering different methods of learning and involving students in decision making processes (Çakici, 2015). Little (1995) stated that successful teachers are autonomous in that they practice continuous reflection and analysis of the teaching process. This practice is useful in the language classroom when teachers keep a record of learners' errors and the feedback given to students. This log of information can help teachers understand what errors are commonly made by students and what feedback has the most beneficial effect. When reflecting on corrective feedback (CF) strategies, teachers can gain a greater understanding of the effectiveness of a strategy and even change their practices as a result (Ellis, 2009).

Although learner autonomy encompasses activities done individually, another component of autonomous learning is group work. Çakici (2015) discussed the importance of cooperative

learning in an autonomous classroom where "its aim is to establish a community of learners in which students are able to generate questions and discuss ideas freely with the teacher and each other" (p. 36). Cooperative learning has also been proven to result in higher self-esteem, confidence and rapid achievement (Çakici, 2015). Virtual exchange may foster this cooperative learning because student pairs are working together towards a common goal. Collaboration between students, teachers and schools has always been an essential part of education, and now with the use of technology and the increase of internet connections, it is easier to connect and work with others (Dooly, 2017) and learn beyond the classroom (Reinders & Benson, 2017).

**Corrective Feedback (CF)**

Reflecting on CF strategies can be an autonomous activity completed by teachers. There are many factors that can affect whether a CF strategy is effective, so teacher education programs are normally reluctant to tell teacher candidates what strategy to use (Ellis, 2009). Therefore, a common issue in language teaching is the role of error correction (Chenoweth, 1983). Language teachers can facilitate learning by having a greater understanding of the importance of learners' errors and when it is necessary to make a correction. Furthermore, making errors is a significant part of learning and it can be most beneficial to students when errors are followed by CF (Metcalfe, 2017). However, it is crucial that a teacher's method of correction encourages an environment in which students are not afraid to make mistakes, one that promotes "students' active, exploratory, generative engagement" (Metcalf, 2017, p. 61).

Gregersen (2003) stated that although making errors is a necessary part of the learning process, it is also important to realize how learners will react to errors and corrections. Students tend to prefer receiving CF for their errors rather than ignoring them, however, learners' cultural backgrounds, language learning experiences, and proficiency levels play a role in their preferences as well (Lyster et al., 2013). CF is not only a pedagogical tool for teachers, but also a motivational tool for language learners. Language learners can improve their linguistic performance through supportive CF (Ito & Hilliker, 2018). Teachers often express a preference for only correcting errors that impede communication as to not disrupt the flow of communication or discourage students (Jean & Simard, 2011; Lyster et al., 2013).

Ellis (2009) discussed different CF strategies with definitions and examples. Types of CF vary based on the degree of implicitness or explicitness. Explicit CF is when the corrector identifies the error and may also provide a correction. In contrast, implicit CF allows for the student to self-correct. One controversy in error correction is the degree to which a correction should be explicit. Lyster et al. (2013) discussed research suggesting that implicit CF may have a longer lasting effect than explicit CF (Mackey & Goo, 2007; Li, 2010), although explicit CF is more noticeable to learners (Mackey et al., 2007; Nassaji, 2009).

Implicit CF strategies include recasts, repetition, and clarification requests. These methods are similar to when children learn their first language and parents hint at the correct response. Ellis (2009) provided clear definitions for the different CF strategies. Recasting is when the corrector reformulates the student's utterance preceding the error to change or correct in some way. According to Lyster et al. (2013), recasts are common and "well suited in communicative classroom discourse because they tend to not interrupt the flow of communication" (p. 10). Repetition is when the corrector repeats the student's utterance putting an emphasis on the error. A clarification request is when the corrector indicates a misunderstanding. On the other hand, elicitation and paralinguistic signals are examples of explicit CF strategies. With elicitation, the corrector indicates that an error is made by using intonation in the repetition of

the student's utterance. Paralinguistic signals are gestures or facial expressions that indicate an error.

## Research Questions

Because reflecting on CF is critical in developing TESOL teacher candidates' pedagogy and virtual exchange can be a vehicle for this autonomous activity, the current study aims to examine how a teacher preparation program's use of virtual exchange promotes learner autonomy and teacher candidates' CF development. Therefore, a study was conducted to answer the following research questions:

1. Upon reflecting on their participation in a virtual exchange, in what ways do TESOL teacher candidates recognize EFL learners' errors during the exchange?
2. Upon reflecting on their participation in a virtual exchange, in what ways do TESOL teacher candidates develop CF strategies during the exchange?

## Methods

### Participants

In total, twelve TESOL teacher candidates participated in the study. All of these participants were registered for a Linguistics for Teachers course at a university in the USA. The course topics included pragmatics, syntax, semantics, morphology and phonology. As part of required coursework, TESOL teacher candidate participants were partnered with 1-2 EFL learners from a Mexican university. The average age of the TESOL teacher candidates was 29.5 years old (SD = 8.76).

### Procedures

Echoing Lenkaitis (2020), participants were given instructions to video conference with their EFL partner(s) for at least 20 minutes for four weeks (Week 1-4). As a way to promote authentic practice, the TESOL teacher candidates implemented strategies they were learning in their Linguistics for Teachers class. These strategies aimed to help develop their partners' English skills during the synchronous sessions, which were done through Zoom (https://zoom.us). There were no weekly topics given to the partnerships, as the weekly synchronous sessions were meant to be authentic conversations between the EFL learners and the TESOL teacher candidates.

After each video conferencing session, the TESOL teacher candidates were asked to watch their recorded synchronous session. While watching these sessions, the teacher candidates identified and recorded the EFLs errors on a weekly chart, along with the time of the occurrence and the CF strategies they implemented during the session. If the TESOL teacher candidates did not implement a CF strategy, they were asked to write an idea of a CF strategy that could have been used at that time. For the two weeks following the video conferencing sessions, the teacher candidates were asked to revisit one of the four sessions, which involved rewatching the video recording and identifying and reflecting on the EFL learners' errors (Week 5 and 6). In addition, the TESOL teacher candidates were required to write a final reflection on their virtual exchange experience and video reflections (Week 7). Table 1 details all seven weeks of the current study.

Table 1: Teacher Candidate Activities and Output by Week

| Week(s) | Activity | Output |
|---|---|---|
| 1 – 4 | Video conference with EFL learners for at least 20 minutes each week | Video recordings |
| 5 – 6 | Revisit one of the four weekly synchronous sessions to review ELF learners' errors | Chart of ELF errors<br>List of CF strategies |
| 7 | Complete final reflection | Written reflection |

**Data Collection and Analysis**

Researchers coded the teacher candidates' reflections in order to see whether their recognition of errors changed or stayed the same throughout the exchange. In order to see when the teacher candidates found it easier to recognize errors, researchers coded reflections into three categories: Difficult, Easy, and Unknown. The Difficult and Easy categories had to do with whether the TESOL teacher candidates' expressed difficulty or ease in recognizing errors. The unknown category was for when participants expressed confusion in recognizing EFL learners' errors. In order to illustrate how teacher candidates' perceptions about CF developed throughout the virtual exchange, researchers coded the TESOL teacher candidates' charts and journal reflections into specific categories using NVivo 11. These categories included Need for Implicit Feedback, Need for Explicit Feedback, No Need for Implicit Feedback, No Need for Implicit Feedback, and Unknown (see Table 2 for a summary). As mentioned in the literature review, both Need and No Need categories were important for data collection and analysis due to the ongoing debate about the role of error correction in language learning. Coding was completed by two researchers with an 89.6% interrater reliability (Kappa = 0.67 with $p < 0.001$). To reconcile differences, both worked together to reach a 100% agreement rate.

Table 2: Name and Description of the Corrective Feedback Categories Coded by Researchers

| | |
|---|---|
| Need for Implicit Feedback | Teacher candidate talks about needing to …<br>• encourage students to speak freely<br>• give implicit CF (recasts, repetitions, clarification requests and elicitation) |
| Need for Explicit Feedback | Teacher candidate talks about needing to give EFL learners<br>• explicit CF<br>• lesson ideas for correction |
| No Need for Implicit Feedback | Teacher candidate does not talk about needing to give EFL learners<br>• encourage students to speak freely<br>• implicit CF (recasts, repetitions, clarification requests and elicitation) |
| No Need for Explicit Feedback | Teacher candidate does not talk about needing to give EFL learners<br>• explicit CF<br>• lesson ideas for correction |
| Unknown | Teacher candidate talks about not knowing what kind of CF the ELF learners need |

## Results

All of the study's participants completed the weekly assignments and final reflection. Each video session averaged 32 minutes and 30 seconds. Figure 1 details the average number of

errors found by the TESOL teacher candidates in the EFL learners' speech during each weekly synchronous session. As shown in Figure 1, the teacher candidates' recognition of errors increased in the first four weeks. In addition, their recognition of errors increased again in weeks 5 and 6, when they reanalyzed the recorded video sessions. For example, from Week 1 to Week 6, the average number of errors increased from 10.56 (*SD* = 8.92) to 19.25 (*SD* = 19.8).

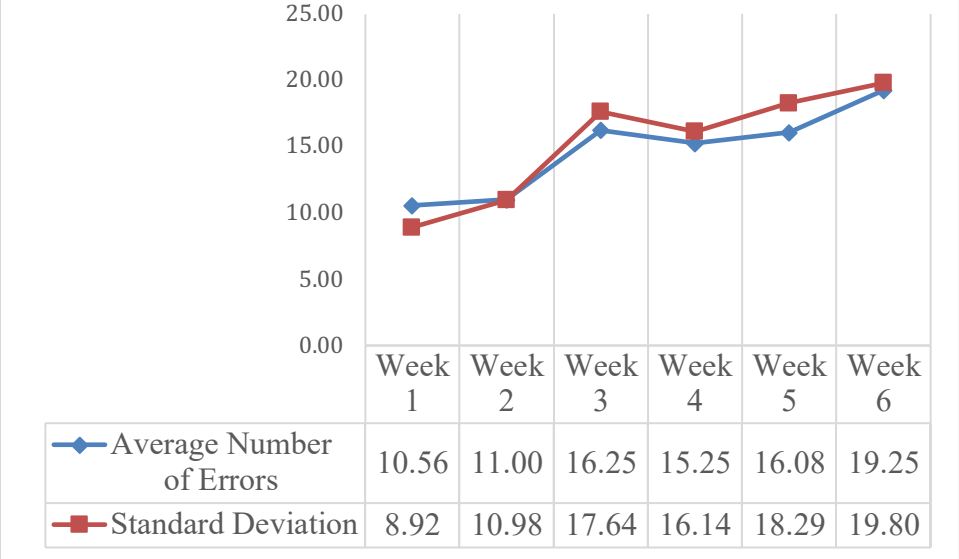


Figure 1: Average EFL Student Errors

In addition to reporting these errors, researchers identified the most frequent words used in the TESOL teacher candidates' weekly and final journals, as well as their weekly and final charts. Many of the common words found in the journal reflections were related to use of language (e.g., word, conversation, understand, sentence). The common words found in the charts reflect linguistic categories, errors and corrections (e.g., syntax, semantics, morphology, error, correct). The bolded words in Table 3 highlight the most common words found across all documents (charts and journals).

Table 3: Ten Most Frequent Words Used by Teacher Candidates by Week Produced

| **Charts and Journals Produced in Weeks 1–4** | **Chart and Journals Produced in Weeks 5–6** | **Charts and Journals Produced in Weeks 1–7** |
|---|---|---|
| Like | Syntax | Like |
| Correct | Errors | Correct |
| Word | Students | Sentence |
| Sentence | Zoom | Word |
| Using | Learning | Using |
| Question | Session | Students |
| Students | Language | Question |
| Semantics | Morphology | Syntax |
| Times | English | Times |
| Syntax | Use | Semantics |

The teacher candidates expressed ease and difficulty recognizing EFL learners' errors and how it varied throughout the exchange. Researchers found that the total number of coding instances for difficult (11) and easy (10) were around the same as seen in Table 4. However, based on the number of coding instances for each week, one can see that participants spoke about it being more difficult in the beginning than at the end of the exchange.

Table 4: Number of Coded Instances by Week

| | **Week of Study** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Coding category | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
| Difficult | 1 | 2 | 2 | 1 | 0 | 0 | 5 | 11 |
| Easy | 1 | 0 | 0 | 0 | 3 | 3 | 5 | 12 |
| Unknown | 1 | 0 | 3 | 2 | 0 | 0 | 3 | 9 |

The number of instances for the implicit/explicit categories across the weeks of the exchange are shown in Table 5. Teacher candidates expressed a greater need for implicit feedback than explicit feedback as there were 144 coded instances for explicit feedback versus 28 for implicit feedback. In addition, the no need for explicit feedback category had a greater number of coded instances (53) than the no need for implicit feedback category (37). This further demonstrates the need for implicit feedback.

Table 5: Number of Coded Instances for Need for Implicit and Explicit Feedback

| | | **Need for Explicit** | **Need for Implicit** | **No need for Explicit** | **No need for Implicit** | **Unknown** |
|---|---|---|---|---|---|---|
| Week 1 | Chart | 1 | 8 | 2 | 2 | 0 |
| | Journal | 0 | 12 | 11 | 4 | 0 |
| Week 2 | Chart | 0 | 14 | 4 | 2 | 2 |
| | Journal | 2 | 6 | 4 | 3 | 0 |
| Week 3 | Chart | 3 | 17 | 8 | 7 | 1 |
| | Journal | 1 | 2 | 1 | 1 | 1 |
| Week 4 | Chart | 4 | 24 | 6 | 5 | 1 |
| | Journal | 2 | 1 | 3 | 3 | 0 |
| Week 5 | Chart | 7 | 21 | 4 | 4 | 0 |
| | Journal | 2 | 4 | 2 | 1 | 0 |
| Week 6 | Chart | 1 | 18 | 6 | 4 | 0 |
| | Journal | 5 | 5 | 0 | 0 | 1 |
| | Chart | 0 | 10 | 0 | 0 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Week 7 | Journal | 0 | 2 | 2 | 1 | 3 |
| Totals | All Charts | 16 | 112 | 30 | 24 | 4 |
| | All Journals | 12 | 32 | 23 | 13 | 5 |
| | All documents | **28** | **144** | **53** | **37** | **9** |

## Discussion

### Recognition of EFL Learners' Errors

During the virtual exchange, recording the video conference sessions allowed teachers to revisit their weekly synchronous meetings in order to reflect on their pedagogy. Just as Kessler and Hubbard (2017) discussed the benefits of technology for observations and monitoring of student behaviour and progress, noting that teachers can also gain insight on the identification of "linguistic and technological challenges students face, the current study's practices can also contribute to the design of more salient feedback" (Kessler & Hubbard, 2017, p. 284). In this virtual exchange study, through practice and acknowledgement of the importance of errors, TESOL teacher candidates began to recognize more errors in their EFL learners' speech.

The number of errors identified weekly as recorded in the charts increased throughout the virtual exchange, and many participants also stated in their reflections that the recognition of errors became easier each week. For instance, participant 2 in Week 6 wrote that, "finding the errors or examples of topics we discussed in class seemed to be more evident than when I analyzed it the first time through". Teacher candidates were both NS and NNS of English and so their difficulties differed in that the NNSs expressed more difficulty in recognizing EFL learners' errors. This could be because English is also not their first language and it was difficult for them to understand what their partner was saying.

The number of coded instances for "difficult" and "easy" had similar totals. However, looking at the distribution of the coded instances throughout the exchange demonstrates that the teacher candidates spoke about their difficulty in recognizing and identifying errors in the beginning of the exchange just as much as they spoke about how they found it easier by the end of the exchange. In his/her final reflection, participant 1 noted, "It was really overwhelming at first to find and classify errors since I didn't understand my conversation partner really well. However, the process became easier over time, and I was able to come up with teaching recommendations more easily". As a result of keeping a record of their students' errors, the virtual exchange allowed teacher candidates to identify recurring errors that their partners made and to recognize the importance of correcting those recurring errors.

### Development of Corrective Feedback Strategies

Reflection, being a significant part of autonomous learning (Little, 1995), was implemented into this virtual exchange as teacher candidates were asked to reflect on their weekly videoconferences. Researchers found that participants wrote about the nature of the exchange, EFL learners' progress, the errors they found in their EFL learners' speech, and the use of CF. Throughout this virtual exchange, participants reflected on their weekly meetings and developed methods of CF in an attempt to facilitate communication with their partner and allow for improvement in the EFL learners' speech.

In the first week, teacher candidates were more reluctant to give explicit CF. For example, participant 11 said, "I generally feel like I wouldn't overtly correct a student's errors unless those errors impeded understanding"" This is similar to Jean and Simard's (2011) finding that teachers preferred correcting errors that impede communication. Some possible reasons for reluctance around providing explicit feedback might include that it was their first time meeting their partner and they wanted to encourage their partners' willingness to converse. Another explanation is the teacher candidates were not able to easily identify their partners' errors.

Teacher candidates also wrote about the CF strategies they used in the charts they created. Candidates who did not use any CF strategies during the video exchanges wrote their CF ideas for they might have done. As the weeks progressed, teacher candidates developed more implicit CF strategies and demonstrated a greater need for implicit CF than explicit. Examples of implicit CF include, recasts, repetitions, clarification requests and elicitation. Participant 5 discussed the strategies he/she found to be useful in the exchange, "I adopted several methods for elucidating meaning: reformulating my question/response, adding additional information, using simplified vocabulary and statements, or incorporating known vocabulary".

**Perceptions of Corrective Error Feedback**

Reflections showed that teacher candidates' views on CF strategies shifted across their weekly exchanges. Similar to Vasquez and Harvey (2010), teacher candidates in this study reflected on their recorded lessons and, as a result, developed a greater understanding of the role and function of CF and the interaction between CF and learner uptake. Overall, most teacher candidates expressed a greater need for implicit CF than explicit. However, some participants' views changed towards the end of the exchange when they expressed a need for explicit CF.

In Weeks 5 and 6 when they revisited and reflected on a session of their choice, it was evident that the teacher candidates began to recognize more errors in their EFL learners' speech. Participants who expressed a need for explicit CF during these weeks, spoke about how it could be a possible solution for correcting recurring errors in their EFL learners' speech. Participant 11 wrote, "the more I pay attention to my conversations with [my partner], the more I notice that his most frequent errors relate to plurals and non-plurals, pronunciation, and tense. Given this information, if I were to continue meeting with [him], I might plan an informal lesson or conversation topic surrounding these areas, so that he could improve".

Participants who did not express a need for explicit CF continued to develop a preference for implicit CF. For example, participant 2 stated, "After learning how to analyze speech and detect errors, I was able to see where my conversation partner needed extra support, though we didn't reach the stage where I felt it was appropriate to correct her errors". These reflections also pointed out that the length of the virtual exchange could have played a role in the use of implicit rather than explicit CF. In a longer exchange, teachers may have felt more comfortable with making explicit corrections and more likely to identify recurring errors.

## Limitations

Having a virtual exchange consisting of more than four weeks of synchronous sessions would be helpful for considering the ways in which CF strategies change over time and to examine the role the length the exchange plays in the pedagogical development of teacher candidates. In addition, because the data were self-reported, some participants may have not wanted to fully express their ideas, which in turn could have impacted their reflections. Regardless, coding was completed in order to find commonalities and the two independent coders worked

together to choose the most representative examples from the analysis. Finally, examining similarities and differences between teacher candidates of other content areas could be beneficial to examine the value of virtual exchanges with these other areas.

## Conclusion

In this study, a virtual exchange gave TESOL teacher candidates authentic practice with EFL learners and, in turn, a greater sense of responsibility for their learning (Sadler & Dooly, 2016). In this study, teacher candidates were offered different methods of learning in which they were able to participate in decision making processes and take control of their learning (Çakici, 2015). As a result of this learning and the autonomous activities, including self-assessment and reflection, the teacher candidates formed a greater recognition of EFL learners' errors and development of their CF strategies. Overall, this study found that teacher candidates' recognition of errors improved, and their reflections demonstrated how this became easier throughout the exchange. Teacher candidates also demonstrated a greater need for implicit CF for their students and how their perceptions of CF strategies changed depending on their student's recurring errors. Based on the results of this study, which partnered TESOL teacher candidates in a virtual exchange with EFL learners, it seems clear that the following recommendation should be made: Virtual exchange opportunities and subsequent reflection should be integrated into teacher preparation programs. Not only will the utilization of virtual exchange give teacher candidates the opportunity to work with learners in their content area, but also to develop their CF strategies. Furthermore, having the ability to work with an international partner to develop these skills showed that virtual exchange is a tool that can be even more valuable in the era of digital transformation that has been highlighted during the COVID-19 crisis.

## Acknowledgments

In carrying out this study, researchers received assistance from the following colleague, who deserves our thanks: Salvador Venegas Escobar.

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