RESEARCH PAPER

Expanding Teacher Candidate Linguistic Knowledge: Analysing Recorded Virtual Exchange Sessions

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Abstract

Teaching English to Speakers of Other Languages (TESOL) teacher candidates must have a working knowledge of English linguistics in order to support their students' language development. This article reports on TESOL teacher candidates' reflective practice to highlight how interaction with non-native speakers can develop awareness of linguistic features of the English language through virtual exchange. Sixteen teacher candidates from a university in the United States were paired with 22 undergraduate English as a Foreign Language (EFL) learners from a university in Mexico. The teacher candidates completed journal entries in which they analysed authentic language produced by their EFL partners during their virtual meetings. Teacher candidates were taking a course that covered topics related to pragmatics, semantics, morphology, phonology and syntax. Each teacher candidate submitted a final error analysis of recorded conversations to determine how many linguistic errors were made by their partners. This study describes the errors the teacher candidates were able to identify in order to explore the benefits of this reflective activity on their understanding of linguistics. This study confirms the need to utilize virtual exchange in teacher preparation programs and subsequent self-reflection in order to give teacher candidates a way to put linguistic content area into practice.

Keywords

Teaching English to Speakers of Other Languages (TESOL), teacher candidates, virtual exchange, English language linguistics, English as a Foreign Language (EFL)

1. Introduction

As the number of English learners in the United States continues to increase, it has become more and more important for educators to acquire the skills and knowledge necessary to teach in a diverse setting (Lucas & Villegas, 2010). In particular, it is essential for Teaching English to Speakers of Other Languages (TESOL) teachers to have pedagogical content knowledge (PCK) (Hsu, 2016; Shulman, 2013) so they can analyse student errors (Hilliker, et al., 2020) in order to give them corrective feedback to support their second language acquisition (Ito & Hilliker**,** 2018). One way for teacher candidates to gain experience in error analysis is to have authentic language to review during their course work. This can give teacher candidates the opportunity to see how the knowledge they are gaining in class, such as the study of linguistic features of the language (semantics, pragmatics, syntax, phonology and morphology), manifest themselves in EFL student language. This can be especially beneficial when the teacher candidates are focused on errors that are produced so that they can be better informed to devise ways to teach students to help correct errors in their speech.

Virtual exchange is one way that teacher candidates can interact with English Language Learners around the world and have access to authentic language to analyse. Virtual exchange is "...activities in which constructive communication and interaction takes place between individuals or groups who are geographically separated and/or from different cultural backgrounds, with the support of educators...combines the deep impact of intercultural dialogue and exchange with the broad reach of digital technology" (Erasmus, 2019). Virtual exchange can be used to connect teacher candidates with students from many linguistic and cultural backgrounds in order to help prepare them to teach in a diverse classroom (Lenkaitis, Loranc-Paszylk, & Hilliker, 2019; Thirunarayana & Coccaro-Pons, 2016). In addition, O'Dowd in his 2017 *EUROCALL Review* article calls for teacher candidates to get experience with virtual exchange in their teacher education programs so that they take the skills they learn and implement similar learning in their own classrooms. To this end, this article will report on teacher candidates' analysis of authentic language (Lenkaitis, 2019) to highlight how interaction with non-native speakers can develop awareness of linguistic features of language through virtual exchange.

2. Theoretical framework

The International TESOL Association outlines as one of its five standards a domain that focuses on language which includes language as a system (TESOL International Association, 2018). Therefore, teacher candidates must have PCK in linguistics. Teacher candidates' understanding of their particular discipline must be justified with an empirically based explanation and the circumstances in which it can be rationalized. This is in line with PCK, which expands one's knowledge of a subject and extends to its teachability (Shulman, 1981). PCK also includes ways in which the subject being taught is represented, including illustrations, examples, and analogies that allow it to be understandable to other individuals (Shulman, 2013). PCK comes from both formal and informal experiences typically obtained from teacher education programs. Organization of knowledge with curricular knowledge helps teacher candidates distinguish substantive structures of knowledge, from syntactic structures of knowledge (Shulman, 2013). Additionally, Shulman (2013) argued that teacher candidates must be able to define language-based rules and incorporate them into their instructional methodology and must be able to explain complex structures.

Studies have shown the need for teachers to master PCK as an essential component in developing language awareness (Hawkins, 1999). Discussions regarding general teaching practices, have demonstrated the effect of metalinguistic knowledge on a teacher's instructional methodology (Ellis, 2004). Some important aspects teachers must address

in regard to PCK are conceptions and preconceptions involving the topic at hand (Shulman, 1981). Conceptions and preconceptions often derive from misconceptions on the topic, which makes it even more important for teachers to address them (Shulman, 2013). Sufficient knowledge on the subject allows teachers to redirect students' misinformation from the beginning, as misconceptions can influence the way in which students learn and process new information. This knowledge ultimately alludes to the ways in which PCK and subject content knowledge work together to create proper instructional conditions (Shulman, 2013).

Metalinguistic language analysis is especially beneficial for bilinguals and teacher candidates when it comes to developing their pedagogy (Ellis, 2003). Ellis' (2004) study on PCK among TESOL teachers demonstrated the effect of studying metalinguistics on the way teaching candidates teach content. Not only did this study show the effects of metalinguistic awareness on teaching strategies among TESOL educators, but also its impact on language awareness and sensitivity in everyday life (Ellis, 2004). Virtual exchange can be used to gain PCK. Because it is a form of language composing that allows teacher candidates to freely monitor their partners' language production, virtual exchange gives teachers authentic language to analyse and reflect on. By allowing teachers to go back and analyse a conversation, it prompts them to create relations among grammar and linguistics that can help them improve linguistic expression while providing an element of cultural exposure (Swain, 1985).

3. Research question

In order to explore how analysis of authentic language can help TESOL teacher candidates develop linguistic content knowledge and how to correct student errors, this study answers the following research question: By analysing the recorded video sessions from a virtual exchange, what errors do teacher candidates find in their partners' speech?

4. Methodology

4.1 Participants

Sixteen teacher candidates from a university in the United States were paired with 22 undergraduate English as a foreign language (EFL) learners from a university in Mexico. The teacher candidates from the United States were enrolled in a linguistics course to help them prepare them to be TESOL teachers, while the Mexican students were enrolled in a course to support their English language learning. TESOL teacher candidates need experience with students from around the globe as their future classrooms could be filled with students from across the world. One affordance of virtual exchange is that teacher candidates can be paired with students from many different countries across their teacher education curriculum in order to gain experience with language learners from many different linguistic and cultural backgrounds (Loranc-Paszylk et al., 2021).

4.2 Procedure

TESOL teacher candidates partnered with EFL learners from Mexico in groups of two or three. During the virtual exchange, groups met via Zoom (https://zoom.us) videoconferencing for four weeks. The pairs were assigned various subjects to focus on during the video chats depending on the language level of the EFL students. Beginner students focused on health, sports, transportation, adventures, the environment, and life stages. The intermediate students focused on work, technology, language and learning, travel and vacations, history and nature.

During the virtual exchange, teacher candidates' role was to be conversation partners for their EFL partners. However, after the exchange, teacher candidates were required to upload their weekly recorded video sessions so that they had the opportunity to watch their conversations and focus on topics from their linguistic course, including pragmatics, semantics, syntax, morphology, and phonology.

4.3 Data collection

After watching each recorded Zoom session, the teacher candidates completed journal entries in which they analysed parts of the meeting that related to the linguistic topics of

their course. At the end of the four-week exchange, they were also required to complete a final unstructured journal activity to reflect on the experience. In addition, teacher candidates were to watch their recorded Zoom sessions to evaluate their EFL partners' speech in order to complete a final error analysis. In this task, they were to determine how many errors their partner made and needed to categorize them based on what they had learned in their coursework. In order to guide TESOL teacher candidates to focus on their partners' errors, the template in Appendix A was given to them.

5. Results and analysis

Because this was a pilot study, the focus of the results is on what errors participants determined to be present when watching the recorded Zoom sessions from their virtual exchange. Additional study will be completed in the future that will include instructor confirmation of participant error analyses. Each TESOL teacher candidate's final error analysis was considered to determine how many total reported errors were made. The following section will describe the errors the teacher candidates identified in order to explore the benefits of this analysis activity on their understanding of linguistics. In total, the teacher candidates found 1,028 errors in their partners' conversations that they noted in their journals in the categories of semantics (context independent meaning within the language system), pragmatics (the context in which language is used), syntax (how items in a sentence can be ordered and combined), morphology (forms of words and their smallest parts) and phonology (system of sounds and how they are organized).

Two hundred and eight of these errors were semantic in nature. Descriptions of errors included sentence distortion, incorrect use of pronouns, misuses of synonyms, and improper meaning of words used in a sentence. For example, a semantic error that Participant 22 noted was the EFL partner's speech in which she stated …"they are always doing mistakes when you have all this stress." While this sentence is still easy to understand, the use of the word 'doing' is incorrect. The words 'making' and 'doing' are considered synonyms of one another, however, only one word is correct in the sentence. Here, Participant 22 demonstrated a conceptual error in semantics. In this sentence, the participant was discussing work, which falls into one of the categories where semantics was commonly flawed.

There were 181 pragmatic errors made, including incorrect language usage in different contexts. The contextual misuse of words was recognized by many participants. Participant 19's EFL partner noted something as being "so stressful" on her skin. In general, EFL learners used incorrect terminology when talking about their routine. While both "stressful" and "bad" are descriptive terms, one is used exclusively to describe people. These mistakes showed that while they understand word meanings, implementing certain words in a sentence proved to be more difficult. Participant 14's EFL partner said, "I don't see TV.", the words seeing and watching are synonyms for each other, however; this example showed they cannot always be used interchangeably. The word "watch" is more correct in this sentence, as it more accurately describes something you are attentively looking at, whereas the word "see" that was used is mainly related to sight as a sense.

There were 236 errors relating to syntax, making it the category with the greatest number of errors and included an incorrect arrangement of words and phrases to form a sentence. As an example, Participant 11, when listening to his partner talk about food on a date responded, "Never have you had a perfect date?" This example demonstrated errors in posing a question due to incorrect word order. While the question may have been understood by some, its inaccuracies may have prevented others from understanding what he or she was asking. This participant also noted mistakes in the use of articles. A common error was seen using "the" and "a" before a noun or an adjective. One example that was brought up in a sports discussion was "I am bought lots of the sports." In this sentence, the article "the" before the noun "sports" is unnecessary. A second syntactic error shown in this sentence is the use of two verbs next to each other: "am bought." Syntactic mistakes presented by EFL students display how differences in the ways questions are asked in different languages can pose barriers for learning a new language.

Morphology, or word usage made up 164 mistakes, including word formation and structural errors. Several morphological errors presented related to the use of an extra article after certain words. In the sentence presented by Participant 3's EFL partner, "Do you think that you could be a vegetarianer?", the ending "er" is present in a word that does not require it. Many titles (i.e., trainer, director, teacher, master) end with that suffix so it is likely that the speaker believed all titles contain that ending. The word vegetarian is an exception to the rule and therefore the extra ending was not needed.

Lastly, 203 errors made were related to phonology, or the phonetics involved in words and word sounds. Participant 11 picked out the vowel sounds that his partner had trouble with. For example, he corrected the word vegetable by repeating it as the sentence structure also needed to be corrected. Instead of pronouncing vegetable /v//ɛ//j//t//ʌ//b//a//l//, it was corrected using the following pronunciation: /v//e//j//a//t//a//b//a//l/. A common phonological error included replacing certain letters in a word, which can cause confusion by changing the meaning of a word altogether. Participant 10 noted phonological errors in the sentence "Yes, like land with a spicy." The letter "n" mistakenly replaced "r" in what was meant to be the word "lard." Without any prior context, this sentence makes no sense because the two words mean completely different things. While the reason for this error is not specified, a language barrier could have resulted in a heavy accent where the "n" sound is pronounced differently in the participant's home country.

6. Conclusions

Teacher candidates had the opportunity, through virtual exchange, to interact with EFL learners as they were learning about linguistics and develop their PCK (Hsu, 2016; Shulman, 2013). The teacher candidates used their own recorded Zoom interactions with these L2 learners to analyse their errors (Loranc-Paszylk et al., 2021). Error types that were assessed included pragmatics, semantics, syntax, morphology, and phonology. The majority of errors found, fell into the syntactic and semantic category, which shows that a lot of participants struggled with word meaning, such as choosing the correct word to use in a sentence. Our findings have shown that virtual exchange which allows for recorded sessions to be re-watched (Lenkaitis, 2020) can be an effective tool for PCK development (Swain, 1985). By reviewing their weekly recorded sessions, TESOL teacher candidates were able to look at their EFL partners' language through a linguistic lens.

Our study laid a solid foundation in investigating how L2 teacher candidates, more specifically TESOL, can benefit from collaborative tasks with EFL learners and subsequent authentic language analysis tasks. By analysing the mistakes of EFL learners through the use of Zoom, teacher candidates learned the different contexts in which different errors appear more frequently. Upon identifying these errors, students were able to correct them instantly and keep track of them in an online journal. Video recording as a means of virtual exchange was effective in improving communication skills to be implemented in a classroom setting. Additionally, video recording these sessions provided participants the option of going back and reviewing errors for further analysis. These strategies can be adopted to improve teaching practices and instructional methodology (Ellis, 2004). The EFL learners on the other side of the exchange had the opportunity to converse with expert users of the language they are studying.

While our study displayed several strengths, whether or not these analysis activities were implemented into the TESOL teacher candidates' teaching practices was not examined. One recommendation for analysing the long-term effects of virtual exchange and authentic language analysis is by conducting a follow-up study once the participants have completed training and are teachers of record. By analysing the teaching practices in this setting, additional data will be available to determine if skills were implemented into their classrooms. For example, Wallace (1998) conducted several assessments in his study where he assessed the methods that were used to engage in reflective teaching during training sessions. Likewise, one way to determine the long-term effects of this experiment is by assessing participants' teaching practices and PCK later on during an observation. Successful implementation of language analysis skills can ultimately lead to a more productive and enjoyable teaching experience.

In sum, this study confirms the need to utilize virtual exchange in teacher preparation programs and subsequent authentic language analysis in order to give teacher candidates a way to put linguistic content area (pragmatics, semantics, morphology, phonology and syntax) into practice. Just like interaction with language learners in virtual exchange has proven to develop teacher candidates' skills such as pragmatics (Hilliker et al., 2020) and intercultural competence (Lenkaitis, Calo, & Venegas Escobar, 2019; Bohinski & Leventhal, 2015) as it gives them more authentic practice (Lenkaitis & Hilliker, 2019), it is imperative that additional research be done with virtual exchange implementation in teacher preparation programs.

Ethical statement

Our study went through the IRB process at Binghamton University. All participants in our study were volunteers and submitted their consent to participate. Participants' anonymity is kept by assigning them a number for data analysis and reporting purposes. The authors of this manuscript do not have any conflicts of interest.

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Appendix A

A Journal Template

Date of Zoom session(s):

Length of Zoom session(s):

Participants:

Instances of focus topic:

Topic	Time of utterance	Student Transcript of Utterance	Teacher correction/idea for teaching

*Add any additional commentary and a short summary of your interaction.