Preservice English Teachers' Conceptual Change About Interlanguage: Findings From Online Disciplinary Literacy Tasks

Cambio conceptual sobre la interlengua en profesores de inglés en formación: hallazgos en tareas de alfabetización disciplinar

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This paper reports a case study of conceptual change about interlanguage. It aims to describe processes and factors of conceptual change in a group of 16 Mexican preservice English teachers. Phenomenography was the chosen method, with data collected through interviews and online disciplinary tasks via discussion forums. The results show that most participants experienced liminality (progress and regression) in conceptual change, with only three showing fuller conceptual change. Online written collaboration and reflection on prescriptivism and power issues in connection to interlanguage development seemed to drive conceptual change.

Keywords: conceptual change, interlanguage, literacy, online learning, preservice teacher education

Este artículo presenta un estudio de caso de cambio conceptual sobre la interlengua. Se describen los procesos y factores de cambio conceptual en un grupo de 16 profesores mexicanos de inglés en formación. Se utilizó el método fenomenográfico, con datos recolectados mediante entrevistas y tareas de literacidad disciplinar en forma de foros de discusión en línea. Los resultados muestran que la mayoría de los participantes experimentaron liminalidad (progreso y regresión) en el cambio conceptual; solo tres evidenciaron un cambio conceptual más completo. La colaboración virtual por escrito y la reflexión sobre el prescriptivismo y el poder en relación con el desarrollo de la interlengua impulsaron el cambio conceptual.

Palabras clave: aprendizaje en línea, cambio conceptual, interlengua, literacidad, profesores en formación

Introduction

The study of teachers' changing thinking about language teaching and learning is a well-established area of research in the psychology of language teaching/learning. A variety of constructs have been used to approach this topic, such as beliefs, attitudes, and conceptual change (Kubanyiova, 2012). Some scholars have embraced the term "language teacher cognition" (LTC), which encompasses "what teachers know, believe, and think" (S. Borg, 2003, p. 81).

The study of preservice teachers' LTC has tended to focus on the role of instruction in bringing about change in their LTC. This focus is due to the general assumption that "the cultivation of positive pedagogical beliefs in preservice teacher education is an important element in the preparation of teachers to support [English learners]" (Polat et al., 2019, p. 224). The multiplicity of paradigms and approaches used to examine LTC makes it difficult to synthesize the literature's findings in this area. Nevertheless, there seems to be a general agreement that preservice teachers' multiple manifestations of LTC can be both malleable and resistant to change (S. Borg, 2011; Polat et al., 2019), influenced by prior studentship experience (or the apprenticeship of observation; Lortie, 1975) and present contextual features and demands (Tsunemoto et al., 2020). Preservice teachers' LTC is also immersed in and impacted by their shifting identities and emotional experiences (Chen, 2023). LTC about corrective feedback seems to be particularly resistant to change (Pitychoutis, 2023).

Studies of both preservice and in-service teachers have tended to focus on general ideas about language teaching processes, such as teachers' beliefs about their roles (Qiu et al., 2021). Only a handful of studies have focused on teachers' changing cognition about specific disciplinary concepts that, while not intrinsically procedural, have important implications for practice. Svalberg (2015) combined complexity theory with a threshold-concepts perspective to explore the impact of an online, functional grammar course on a group of preservice and experienced teachers' developing understanding of key grammar knowledge. Threshold concepts are disciplinary concepts that transform a novice's understanding of the subject matter, often through cognitive and emotional conflicts (Meyer & Land, 2005). Svalberg (2015) considered constituency structure as a threshold concept. She found that cognitive conflicts and collaboration to resolve them were instrumental in bringing about new, more accurate, and more sophisticated understandings, or threshold crossings (Meyer & Land, 2005).

Dobbs and Leider (2021) conducted a critical study of teachers' beliefs about multilingualism. They found that teachers' beliefs evidenced awareness of linguistic hierarchies and the dominance of English, but less awareness of connections between language diversity issues and racism. Thus, while there have been many relevant decolonial studies, a critical focus on LTC change, especially as related to disciplinary concepts and literacy, seems to be missing.

It seems then that the study of LTC can benefit from inquiries originating in the Global South that look at innovative, critical practices in the context of promoting preservice teachers' LTC change. Further, an emphasis on LTC about disciplinary concepts is valuable, considering preservice teachers' difficulties in synthesizing practical abilities with theory-based knowledge and the negative impact of this issue on practice (Kartchava et al., 2020). In addition, in this digital, post-pandemic age, it is important to address the role of disciplinary literacy practices—particularly collaboration through written online discussion forums—in bringing about LTC change or failing to do so (Delahunty et al., 2023).

The present study focuses on online disciplinary literacy practices, aiming at developing the concept of interlanguage and related concepts from a critical perspective, as conducted at a Mexican university by a Mexican professor. To the best of my knowledge, no studies have examined LTC thoroughly in interlanguage. Perales-Escudero (2017) provided some preliminary

discussion and evidence, but not a thorough study. Pallotti (2017) reported an elementary school intervention that followed an interlanguage approach but did not focus on LTC. This paucity of research exists despite the potentially transformative role of teaching practices that approach interlanguage as a complex system and as a process to be interrogated (Larsen-Freeman, 2014; Tarone, 2014).

It is, of course, possible to learn about interlanguage in a reductive, surface-level way by focusing only on its formal definitions as a construct; this is of little value to teachers. However, it is also possible to take a deep-level, critical, threshold-concepts approach, which involves teachers abandoning received views of error that judge learners' output against target-language norms, and focusing on understanding learners' development in their own terms (Larsen-Freeman, 2014; Pallotti, 2017; Tarone, 2014). According to Perales-Escudero (2017), learning about interlanguage from a threshold-concepts perspective can induce the type of cognitive conflict conducive to positive LTC change. This type of learning can lead preservice teachers away from a prescriptivist, deficit perspective to a descriptivist one that embraces non-standard forms (or errors and mistakes) as learning opportunities.

LTC changes involved in the deep learning of interlanguage as a threshold concept, a complex system, and an inquiry-focused approach may lead to changes in teaching practices, such as corrective feedback and testing. In addition, as this study will show, when interlanguage development is taught critically, it can help preservice teachers to question oppressive, standard English-focused teaching and learning practices and develop new, critical ones. Hence, the importance of exploring LTC change about interlanguage and the factors that may influence it, particularly when such LTC change is promoted critically in multilingual contexts. However, as discussed by Polat et al. (2019), changing teachers' beliefs can be difficult, with the apprenticeship of observation being an important obstacle (M. Borg,

2005; Urmston, 2003). Nevertheless, some studies have reported changes due to online pedagogical interventions (e.g., Mahalingappa et al., 2018), with effective teacher–student or student–student collaboration appearing to be a driver of success (Qiu et al., 2021). Reflection also drives belief change (Asenjo & Yankovic-Allen, 2024). Consequently, the following questions were addressed:

1. How does the LTC about interlanguage of a group of Mexican preservice EFL teachers change or fail to change in the context of a second language acquisition (SLA) course taught using critical perspectives and online discussion forums?

2. What factors, in the participants' own conceptions, appear to influence LTC change or lack thereof?

Theoretical Framework

As exemplified by Svalberg (2015), the threshold concepts perspective is one research tradition from which to approach preservice teachers' conceptual change. A key assumption in threshold concepts research is that the process of learning a threshold concept is non-linear. While grappling with understanding a threshold concept, preservice teachers may experience emotional conflict and liminality (i.e., progress and regression). This is because fully comprehending a threshold concept frequently involves taking distance from received knowledge to which preservice teachers are cognitively and emotionally committed (Meyer & Land, 2005). This abandonment of received notions when the threshold concept is fully comprehended is called "crossing the threshold." It is akin to conceptual change in that it involves seeing the target phenomena through a new disciplinary lens, wherein the threshold concept is embedded in a web of other disciplinary concepts.

Taking an interlanguage approach to language teaching has been identified as a threshold concept as it involves abandoning received, deficit views of L2 errors and mistakes and embracing complex views (Perales-Escudero, 2017). As stated by Pallotti (2017),

this process is difficult and slow, and an interlanguage approach is not followed by many teachers. Following such an approach involves acknowledging interlanguage as a complex system in its own right (Larsen-Freeman, 2014). In assessment, a key point of a threshold concepts interlanguage approach is to focus on and reward what students can do with the language instead of centering on and punishing errors and shortcomings. Larsen-Freeman (2014) calls this process "self-referential assessment."

As Pallotti (2017) discusses, instructing teachers to follow an interlanguage approach involves adopting some of the ways of thinking of linguists and SLA specialists. An example is approaching the interlanguage system not in terms of what it lacks with respect to the target language, but in positive terms, "based on what is present and not what is missing" (Pallotti, 2017, p. 395). From a threshold concept perspective, it also involves seeing interlanguage as an integrative concept within a network of other disciplinary concepts. This adoption of a disciplinary lens is likely to be mediated by reading scholarly texts and writing school genres using those concepts. Therefore, it can be thought of as a process of disciplinary literacy.

Disciplinary literacy is defined as "the ability to engage in social, semiotic, and cognitive practices consistent with those of content experts" (Fang, 2012, pp. 19–20). One of the most widely used tools to promote disciplinary literacy is asynchronous, online discussion forums (ODFs; Wikle & West, 2019). When properly used, ODFs can facilitate interaction with peers and tutors as well as reflection (Delahunty et al., 2023). These have been identified as factors in LTC change (Qiu et al., 2021).

Method

This study reports a qualitative study of a single significant case (Patton, 2015) with embedded units (Merriam & Tisdell, 2016). The case was a five-week unit about interlanguage development in the context of a blended-learning SLA course in a BA program in English Language Teaching at a university in southeastern Mexico (hereafter "the university"). The virtual sessions were taught using Moodle ODFs.

The case is significant because the course professor is a scholar with international recognition in applied linguistics and literacy studies and explicitly adheres to a critical, disciplinary, literacy, and complexity perspective on interlanguage development and LCT change. His trajectory and teaching philosophy are not typical in the target context. For this reason, the case might provide a "deep understanding of the subject and breakthrough insights" (Patton, 2015, p. 411). I got access to the case because I have a personal relationship with the professor. The embedded units are the preservice teachers and the teams with which they collaborated to write during the ODF tasks.

To study LTC and its change (or lack thereof) and factors, I used phenomenography, which is a theoretical and methodological tradition that aims at describing collective learning experiences and conceptual change through "naturalistic investigations of the quality of learning, undertaken in natural educational settings . . . from the students' perspective" (Åkerlind, 2024, p. 2).

Phenomenography posits a non-dualist epistemology in which "the world [as experienced] is not constructed by the learner, nor is it imposed upon her; it is constituted as an internal relation between them" (Marton & Booth, 1997, as cited in Åkerlind, 2024, p. 7). This means that phenomenography allows for explorations of how different contextual factors impact LTCs, as it is open to those factors and may adapt to them. The experienced world in phenomenography is construed as "themes," that is, the different aspects of the world that are conceived of in certain ways (Marton & Booth, 1997).

Phenomenography has been used before to examine threshold concept learning and concept change (Åkerlind, 2024). From a phenomenographic perspective, LTC can be operationalized as a series of conceptions: ways of understanding learning as verbalized in dis-

course during interviews or verbal tasks (Marton & Booth, 1997).

The product of a phenomenographic study is an outcome space: a set of organized categories of experience resulting from the researcher's rigorous process of interpreting and organizing the participants' ways of understanding. Phenomenography assumes that some categories are more complex than others because they include more accurate or more comprehensive understandings. The outcome space is thus arranged to show this increasing complexity and is inclusive: the more complex categories include the less complex ones (Marton & Booth, 1997). The outcome space may show who achieved a category (Eglund et al., 2017). The collective categories can be applied to or found in individual cases to deepen understanding (González-Ugalde, 2014). Like the present study, other phenomenographic studies of conceptual change have explored changes retrospectively by looking chronologically at the participants' evolving conceptions (e.g., Eglund et al., 2017).

Context

The state where the university is located is characterized by contact between Spanish, Yucatec Maya, and English. The former is the dominant language. However, an undetermined number of native Spanish speakers are direct descendants of Yucatec Maya speakers and use Spanish in non-standard ways (Perales-Escudero et al., 2022). An SLA course is taught in the fifth semester.

The university's BA in ELT has followed a traditional approach to grammar. Prescriptivism, negative attitudes toward errors, and corrective feedback prevail (Perales-Escudero, 2017). Nevertheless, through interviews and class observation, I determined that the SLA course professor follows a critical, conceptual change approach.

Using an ODF (ODF 1), the professor attempted to make preservice teachers aware of prescriptive, received views of error in the L1 (e.g., the stigmatization of the non-standard subjunctive form of the verb "*haber*/to exist:" "*haiga*," and other non-standard forms in local

Spanish that the preservice teachers themselves use) so that they come to see them as products of a legitimate linguistic system that happens to differ from standard Spanish. To the same end, the professor taught the preservice teachers about native varieties of English where the present simple third person -s is not used.

He then recruited this awareness of native non-standard forms to engage preservice teachers in ODFs 2 and 3, which dealt with interlanguage and how L2 non-standard forms (errors and mistakes) evince development rather than deficit. To the professor, this is a descriptive, decolonial, and complex approach to interlanguage development. He tied this approach explicitly to the concept of descriptivism. The prompts for the discussions required teams of preservice teachers to integrate concepts such as interlanguage, error, mistake, nontarget-like forms, prescriptivism, descriptivism, and power asymmetry, and then apply them to analyze their own and others' experiences with corrective feedback and language learning.

Next, the professor implemented a fourth ODF focused on Larsen-Freeman's (2014) self-referential assessment. In this ODF, preservice teachers discussed the grading of a hypothetical learner who has made morphological mistakes in aspect marking in a hypothetical test but nonetheless shows development of tense–temporality connections in the inclusion of auxiliary verbs and standard word order. In the fifth ODF, the preservice teachers reflected on their grading and how it contrasted with previous learning about interlanguage and related concepts. In all the ODFs, participants were required to write their individual views first, then negotiate agreements and disagreements, and finally collectively write a concluding paragraph defining and connecting the target concepts. The professor gave the participants the chance to write in Spanish in the ODFs. All of them but one native speaker of Belizean English did so.

The professor was aware of threshold concepts and explicitly followed this approach to conceptual change in that he sought preservice teachers to discard their

previously received views and embrace the deep learning of interlanguage and related concepts that he advocates.

Participants

The participants were all preservice teachers enrolled in the target course, taught in the fifth semester of the university's BA in ELT. By this point in their degree program, they were expected to have reached a B1 level of English competence. All but one were EFL learners who began their BA with a pre-A1 or A1 level of English. I recruited them by physically visiting the classroom, explaining the study, and obtaining written informed consent. Sixteen students agreed to participate, which meets the minimum recommended by Trigwell (2000) for phenomegraphic studies. Following Hajar's (2021) advice to contextualize conceptions in the participants' lifeworld, information was gathered on the following topics pertaining to their prior, contextualized experiences through a semi-structured interview conducted before the onset of the study (Interview 0):

1. Relevant apprenticeship of observation (i.e., experiences of error treatment and corrective feedback during their prior EFL learning)

2. Attitudes toward error and corrective feedback
3. Bi- or multilingual status
4. Previous knowledge of the construct of interlanguage and its implications for language learning/ teaching

This interview, like all others, was designed and piloted using the Interview Protocol Refinement Framework (IPRF; Castillo-Montoya, 2016). Through content analysis of these interviews, the participant profiles in Table 1 were constructed. "Deficit" means a participant views errors and corrective feedback from a deficit perspective due to their prior experience. "Developmental" means that their views and prior experience are more aligned with recommended practices regarding interlanguage development and corrective feedback. "Mixed" means that the participant reported both types of views and experiences. "Maya" or "Belizean English" means the participant is bilingual in Spanish and one of these. "No" means they speak only Spanish. None of them knew anything about interlanguage or related constructs.

Table 1. Participants' Profiles

Participant	Biological sex	Bilingualism	Apprenticeship of observation
P1	Female	No	Deficit
P2	Female	No	Mixed
P3	Male	Maya	Mixed
P4	Male	No	Developmental
P5	Female	Belizean English	Deficit
P6	Female	No	Deficit
P7	Male	No	Developmental
P8	Male	No	Deficit
P9	Female	No	Mixed
P10	Female	No	Mixed
P11	Female	No	Developmental
P12	Female	No	Mixed
P13	Female	Maya	Mixed
P14	Female	Maya	Mixed
P15	Male	Maya	Deficit
P16	Female	No	Developmental

Data Collection

Data were gathered during the 5-week instructional unit focusing on interlanguage, using three semi-structured interviews designed according to phenomenographic guidelines (Åkerlind, 2005a, 2005b, 2024; González-Ugalde, 2014; Hajar, 2021) and the IPRF (Castillo-Montoya, 2016). Non-participant online ODF observations were also used, and the five written ODFs were collected by downloading them from Moodle. The interviews took place at three different moments: one during the second week, another during the fourth week, and the last one immediately after the fifth week. They were conducted face-to-face in Spanish either in the classroom or in the professor's office. This yielded 48 interviews. The written ODFs were used as prompts to bring participants' conceptions to consciousness and to build relational understandings of experience between the interviewer and the interviewee (Åkerlind, 2024).

Data Analysis

I conducted the analysis, and my supervisor audited it. The categories emerged from the data using a discovery approach first, followed by a more constructive approach when naming the categories (i.e., using theoretical labels; Walsh, 2000). Below are the analytic steps:

1. I transcribed the interviews and read them entirely, segmented the ODFs into messages, and assigned codes to each one.

2. I randomly selected four participants' interviews (12 interviews) and their messages in the five ODFs. I read them, manually noting similarities and differences in the ways they talked about the same concepts and keeping handwritten memos in a notebook. This resulted in a preliminary book code, which was then applied to the same interview transcripts in MAXQDA© v. 2018, yielding a first set of codes. These codes were presented at a doctoral seminar. Upon receiving feedback, changes were made accordingly. This is a type of phenomenographic validity (Åkerlind, 2005b).

3. The supervisor applied the resulting codes to two unanalyzed interviews and randomly selected ODF segments. This auditing is the main type of validity in phenomenographic research (Walsh, 2000). She found almost the same codes, but some new ones were negotiated in dialogue with me, which conferred dialogic reliability (Hajar, 2021).

4. I applied the new coding scheme to the remaining interviews and ODFs. Through constant comparison and reflection, conceptions were grouped into categories in MAXQDA© v. 2018, and an initial outcome space was produced as a Microsoft Word© document. I used the threshold-concepts literature to name the categories.

5. The supervisor read 12 randomly selected interviews and segments of ODFs to verify the applicability of the outcome space. Refinements to the outcome space were negotiated between the supervisor and the author through dialogue until it stabilized.

6. The outcome was presented at a doctoral seminar, where it received positive feedback (communicative validity, Åkerlind, 2005b).

7. Embedded units consisting of information-rich cases (Patton, 2015) that illustrate conceptual change and the outcome space were identified and extracted by re-reading the whole data set.

The next section presents the results. First, the outcome space is shown, followed by a chronological analysis of the evolving conceptions of selected, information-rich cases.

Results

There are several ways of presenting outcome spaces (Åkerlind, 2005b). We follow that in Perales-Escudero et al. (2023), where the themes (what is perceived) are organized in columns and the categories in rows. The intersecting cells describe the conceptions corresponding to each theme. Participants' codes are placed in their achieved category (i.e., the one they held at the end of

the study), but all participants held conceptions across all categories (see Table 2). The rightmost column presents the factors influencing conceptual change, or lack thereof.

By "isolated understanding," I mean that a concept was well understood, but its connections with others were not. "Integrated understanding" means that both the target concept and its connections with others were well understood. "Complex understanding" means that all definitional elements of a concept were present in the participants' discourse. "Descriptivist in practice" means that the participants applied developmental, descriptivist conceptions to the referential assessment task in ODF 4. The next sections turn attention to two information-rich cases or embedded units within the case: Team 1 (P4, P6, P8) and Team 2 (only P2 due to space limitations).

Team 1

The participants in this team run the gamut of achieved conceptions, with P6 and P8 in *no crossing*, P4 in *threshold crossing*, and P9 in *liminality*. There were important contrasts between their apprenticeship of observation and initial stances. P4 experienced a developmental apprenticeship of observation in high school, as shown in the following excerpt. Due to space limitations, only English translations of excerpts are presented:

> Since I was in high school, the teacher would tell me that sometimes we make grammar mistakes that aren't as important in communication; some are more serious than others, of course, and this idea stuck with me: that what's important is communication. (P4, Interview 0)

Table 2. The Outcome Space

Categories and participants \ Themes	Interlanguage	Related concepts	Stance (prescriptivist vs. descriptivist)	Factors influencing LTC change or lack thereof
No crossing P3, P5, P8	Partial, inaccurate, or isolated understanding	Partial comprehension of a few concepts	Prescriptivist, misunderstanding of descriptivism as "anything goes"	No reflection, adherence to received deficit views from apprenticeship of observation
Liminality P1, P6, P7, P9, P11, P12, P13, P14, P15, P16	Complex, integrated understanding	Complex, integrated understanding of most or all concepts	Tendency to descriptivism in discourse with oscillations in practice	Partial adherence to received deficit views (apprenticeship of observation, present context), collaboration, cognitive conflict, and openness to teammates' developmental views
Threshold crossing P2, P4, P10	Complex, integrated understanding, connecting with power, prescriptivism, and descriptivism	Complex, integrated understanding of most or all concepts	Descriptivist in both discourse and practice	Critical reflection on received deficit views or acceptance of received developmental views (apprenticeship of observation), understanding of power imbalances

After ODF 1, "Feelings about correctness," P4 also reflected on the power imbalances involved in imposing standard varieties and the need to adopt a descriptivist stance toward speakers of contact Spanish. Although he is not bilingual, he grew up in a rural community with Maya speakers:

> I think corrective feedback is okay sometimes, and sometimes it is not. The Maya people were forced to learn Spanish, and this involved discrimination. I think we have to respect the way they speak Spanish; in a way, it's about taking a humanistic approach. (P4, Interview 1)

P4's experiences and initial stance contrasted with those of his teammates. For example, P6 experienced a deficit-oriented apprenticeship of observation that involved punishment for mistakes: "In high school, we answered English exercises on computers, and if we made a mistake, they forced us to start all over again from the beginning, and we couldn't leave for lunch break until everything was completed perfectly" (Interview 0).

During Interview 1, P6 also resisted the professor's descriptivist stance toward non-standard varieties of English, which is evidence of the conflicts that arise with grappling with threshold concepts that clash with the apprenticeship of observation:

> We need to speak correctly. When I saw that the professor wrote examples without the third-person s, I thought, "How can that be right?" I mean, we've been taught all the time that it's wrong, even our grammar teachers say it's wrong.

P8 also showed a strong adherence to prescribed standard norms coming from her apprenticeship of observation, which also caused conflict: "In all my English courses, we have always been taught that what is in the books is the way things must be done, like writing or conjugating verbs. How come native speakers decide to speak the wrong way?" (P8, Interview 1).

Interestingly, during ODF 2, "First concept connection activity," where participants had to define interlanguage and connect it to several other terms, P4 showed an inaccurate, partial understanding of interlanguage as "a system that helps us learn an L2 by realizing what's right and what's wrong" (P4, ODF 2, Message 2). This was corrected by P6, who wrote the following complex and integrated understanding of interlanguage:

> What I'm going to write is my opinion about how these terms can be defined and related. Interlanguage is the linguistic system of an L2 learner. I think it is a very personal version of the language based on the rules in each learner's mind. Many factors are involved in the process of interlanguage, like the input you get, whether you learn the L2 as a second or foreign language, and the result of this process, which can be target-like or non-target-like forms.

During Interview 2, P6 expanded on this definition:
> In my opinion, interlanguage is like a new version of the language, one's own individual version, and for that reason, we don't all have the same level of the language. And this is very stressful for me because there are many related concepts in interlanguage, but they all have their own meanings, and it's difficult to learn them all.

Despite her difficulties, the contribution of P6 was instrumental in helping her teammates understand interlanguage: "At the beginning, I had a lot of questions about what interlanguage was. But thanks to P6, who wrote an accurate definition, I was able to write the other concepts and relate them to one another" (P4, Interview 2). This illustrates the role of collaboration in conceptual change.

In ODF 3, these participants did not show an accurate understanding of descriptivism and how it may relate to interlanguage development:

> About interlanguage development, we may say there are two branches to this process: target-like forms and

non-target-like forms. The former are correct ways of speaking, taking established rules into account, and the latter are deviations from the norm, incorrect ways of using the rules of a language. This whole process of interlanguage happens when a person is learning a new language and draws on their L1 to speak the L2. We can define two schools of thought when it comes to language learning. The first is prescriptivism, which is the way of teaching in schools, that is, following the grammar rules in books. For example, in a test, students must write verb tenses and words correctly, or they are penalized. The focus is on the correct way of speaking. Descriptivism is the opposite, as it allows us to express ourselves freely without following book rules. (ODF 3, Collective concluding paragraph)

My interview with the professor and my class observations showed that he was actually trying to get preservice teachers to distance themselves from the "correct vs. incorrect" dichotomy. He also did not define descriptivism as simply "speaking without rules" but rather as an inquiry-based attitude to non-standard forms that seeks to understand how and why they are produced for didactic and critical purposes, that is, to subvert the imposition of deficit views and the power imbalances and oppression inherent to native speakerism. Nevertheless, P6 and P8 did not understand this and, instead, adhered to prescriptivism: "Prescriptivism tries to follow the rules of a language, and it tries for people who speak this language to follow the rules. And prescriptivism is easier to understand because it's the opposite of descriptivism" (P6, Interview 2).

By contrast, P4 did reflect on the connections between prescriptivism and oppression:

> Prescriptivism is only about saying that something is right or wrong, without understanding why people speak that way. Prescriptive rules are based on the ways of speaking of those with more power or more social and economic prestige. But the fact that someone thinks the way I speak is wrong doesn't make it wrong. (Interview 2)

The prescriptivist stances and received deficit conceptions of P6 and P8 influenced their participation in ODF 4, an assessment task intended to be self-referential (Larsen-Freeman, 2014). In this task, the professor provided a simulated vocabulary test on past and present tenses that a hypothetical learner answered using target-like semantics and syntax, combined with some non-target-like morphological marking of tense, aspect, and/or subject–verb agreement. The test involved selecting the right verb and tense/aspect to complete sentences. The prompt asked participants to grade the test based on what they had learned about interlanguage development. The prompt suggested using decimals (i.e., .25 or .5 or .75) instead of a full point to reward the learner for what they could do. P6 and P8 were unanimous in awarding 0 points to all the answers: "To the answer to Question 1, 'I am walk home today because my car broke down' I give 0 points because the verb should have been in the present continuous with -ing" (P6, ODF 4, Message 2).

By contrast, P4 considered awarding decimals because the participants' answers made sense: "In Answer 4, I would consider giving .5 because the main verb is in the past participle. They just didn't conjugate the auxiliary verb correctly" (ODF 4, Message 13).

> Well, guys, it looks to me that we've only evaluated grammar, but what about semantics? I think it's important to evaluate this as well. As we can see, he has used each verb well. He knows what each one means. I would give him a 10 in semantics (P4, ODF 4, Message 20).

The other participants replied that the answers had to be perfect and, since they were not, it was inappropriate to award decimals: "For Number 8, I also thought about awarding .5, but I believe that, as in 5, both the main and the auxiliary verb must be correct, so *the verb tense is correct*. My grade is 0" (P6, ODF 4, Message 33, italics in the original text). These conceptions aligned with their deficit-oriented apprenticeship of observation and views of their current grammar teacher.

After ODF 4, the professor asked students to engage in a new discussion, ODF 5, where they had to reflect on their grading. P4 gave an extended, well-argued explanation that shows he crossed the threshold:

> The student knew the meanings of the verbs very well, and he knew word order because he placed the auxiliary verb before the main verb. He couldn't conjugate them well, but he clearly has a structure in his brain about how to speak. That's why, to me, it was unfair to grade him with 0 points because clearly there is a structure in his brain about how to use the tenses. (ODF 5, Message 4).

I see evidence of crossing the threshold because the answer displays an awareness of interlanguage as a developmental process and, consequently, an embracement of self-referential assessment. In ODF 5 and Interview 3, P8 remained adhered to prescriptivist views and showed no conceptual change, adhering to his apprenticeship of observation:

> I was able to notice all the grammar mistakes he made, and this is basic to me. I don't think it's right to make these mistakes, but I liked the activity because I could show my knowledge, what I have always been taught.

By contrast, P6 expressed openness to considering P4's perspective, which is evidence of the liminality category. P6 shows incipient reflection thanks to collaboration:

> Something that helped me learn from the ODF was P4's last message, where he said that we were only taking grammar into account, but we should consider that the student's sentences communicated something meaningful, so we should assess that too. We didn't think that way before, but it's true. (Interview 3)

Team 2

This section focuses on P2, who most clearly illustrates conceptual change. During Interview 1, following ODF 1, P2 expressed a strong prescriptivist stance against non-standard varieties: "To me, saying "*haiga*" is incor-rect. My whole life, I have been taught what's correct, and that is completely incorrect."

However, by the second interview, after ODFs 2 and 3, P2's conceptions had begun to change in connection with a more accurate understanding of descriptivism:

> I used to say that being prescriptivist was better, but now I understand descriptivism better. I used to think that all the rules I've been taught during my studies are always better because they are established in books, and they must be followed. But now I realize that when teachers are like that, they tend not to explain anything when someone makes a mistake. They just say, "It's wrong," and that's it. That happened to me in middle school and high school when I was learning English. The teachers would just say "that's wrong," but didn't explain why. And maybe that's why I began to hold this belief that, well, this is how it's done, this is well done. But now I've realized it isn't. And if I'm going to be a teacher in the future, it's better to be a descriptivist. Because that's how people understand and learn more.

P2 experienced oscillation during ODF4, where she refused to reward the hypothetical learner's developmental gains. However, during ODF 5 and Interview 3, she distanced herself from that stance and restated her change in views:

> Thanks to the class, we realized we had to see things from the learner's perspective, that he did show some learning, and that we had to acknowledge it instead of just saying no, no, no. I remembered that something similar happened to me on a test, with a grade. So, I changed my perspective on things.

P2 became very critical of her deficit-oriented apprenticeship in observation, reflecting on how it had affected her as a learner and how she had come to accept, irreflexively, that it was the way things were done in English teaching (a deficit-oriented dimension of local professional identities). Her reference to negative feedback and testing experiences evinces reflection on

prescriptivism and power imbalances. It seems that these class-prompted reflections promoted conceptual change and led her to cross the threshold.

Discussion

This study aimed at understanding how LTC about interlanguage and related concepts changed or failed to do so in a group of Mexican preservice EFL teachers (Research Question 1) and what factors, from their own perspective, influenced change or stability (Research Question 2). The innovative, critical nature of the class being observed and of the study itself helped me to gain insights into change and its absence.

Regarding Question 1, the results evidence that LTC change, as proposed by the threshold-concepts approach, was non-linear when it happened. At the end of the study, 10 of 16 participants were in the liminality category. This means that they showed mostly accurate understandings of interlanguage and related concepts, but failed to integrate these understandings with practice. They also were not critical of the deficit views received during the apprenticeship of observation. Nevertheless, they were open to their teammates' opposite views and to reflecting on and possibly changing their practices in the future. Only three participants showed evidence of threshold crossing or deep learning of interlanguage. This deep learning led to a transformation in the treatment of errors in self-referential assessment (Larsen-Freeman, 2014; Tarone, 2014), as in P4, or to criticism and total rejection of the deficit views they received during their apprenticeship of observation, as in P2. These findings confirm those of Kartchava et al. (2020) regarding teachers' difficulties in integrating theory and practice, as well as the well-known difficulty in deeply learning threshold concepts (Meyer & Land, 2005). The next paragraph turns attention to Question 2.

As in previous studies (M. Borg, 2005; Urmston, 2003), conceptions derived from preservice teachers' own apprenticeship of observation were one factor influencing change. This influence was positive in P4,

who had been exposed to developmental views, but negative in P8 and others who had been exposed to deficit-oriented views and remained in the no-crossing category. Conceptions rooted in the present, deficit-oriented contextual demands, such as P6's references to grammar university professors being strongly prescriptivist, also appeared to be negative influences, supporting the role of present contextual demands (Tsunemoto et al., 2020).

Other positive factors were ODF collaboration and cognitive conflict when reading and thinking about teammates' opposing views. This confirms findings on the roles of collaboration and cognitive conflict in LTC change (Qiu et al., 2021; Svalberg, 2015), specifically in ODFs (Delahunty et al., 2023; Mahalingappa et al., 2018). Confirmed too are findings that teachers' local professional identities apprenticed from observation (e.g., P2's claims about "the way things are done" or "what I have always been taught") and negative emotions (e.g., P6's "stress and difficulty") influence LTC change and threshold concept learning (Chen, 2023; Meyer & Land, 2005; Qiu et al., 2021). As in Asenjo and Yankovic-Allen (2024), reflection was an important factor, particularly in P4 and P2. As in Pitychoutis (2023), the treatment of error was most resistant to change. Similar to Dobbs and Leider (2021), deep, critical awareness of power issues was scarce. These similarities may signal deficit-oriented, glocally distributed professional identities and practices and speak to the importance of promoting a critical, interlanguage approach. The results confirm the phenomenographic assumption that learning involves deeply experiencing new, previously unseen dimensions of a concept (Marton & Booth, 1997).

Conclusions and Implications

This study was undertaken in light of the paucity of research from the Global South on preservice teachers' conceptual change regarding disciplinary concepts. Perhaps its two most important contributions lie in considering insufficient and sufficient factors leading

to LTC change. On the one hand, it was clear that an accurate and complex conceptual understanding of interlanguage and related terms was not enough to cross the threshold and change practices. On the other hand, the study's findings suggest that critical reflections on contextualized power asymmetries, either more explicit and abstract ones, as with P4, or more implicit and personal ones, as with P2, were crucial in helping these preservice teachers cross the threshold. This means that the recommended adoption of an interlanguage approach (not just the isolated concept) by language teachers (Larsen-Freeman, 2014; Pallotti, 2017; Tarone, 2014) can benefit from the inclusion of critical and complexity perspectives that consider the connection of interlanguage with concepts such as prescriptivism vs. descriptivism, power, oppression, and self-referential assessment. Reflecting on these concepts and practices in relation to local contexts and experiences can help preservice teachers undertake critical assessments of their apprenticeship of observation and, thus, change their LTC in ways conducive to better teaching practices in the future. Such critical considerations are also a contribution to the threshold concepts literature, where criticality has only begun to be addressed, albeit in non-political ways (Wason, 2025).

Another factor that proved conducive to change was collaboration with peers in ODFs, particularly in writing, reading, and reacting to conflicting views in the context of tasks that required the principled integration of several concepts into a single, descriptive paragraph and their application to simulated teaching tasks. These online disciplinary literacy practices are not common in the target context or in other contexts I know, so their promotion and adoption seem a worthy goal for future interventions. Explicit teaching of ways of collaborating in ODFs (e.g., Meskill & Sadykova, 2011) may prove fruitful in this regard.

The study's main limitation was the short timeframe that was used to establish the case study's boundaries. This was a strategic decision due to the large amount of data collected from three sources (face-to-face classes, ODFs, and interviews). Nevertheless, a longer timeframe might have allowed an examination of longer-term processes of LTC change and perhaps different findings regarding the number of students who managed to cross the threshold or remained in liminality. Future studies should address this issue by extending data collection periods.

Why three participants did not experience any conceptual change is a lingering question. While this finding may be due to the short data collection span, conducting detailed case studies of preservice teachers who show no conceptual change despite careful promotion thereof seems necessary to better understand and foster conceptual change.

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