

Exploring the Impact of ESOL Endorsement Courses on Teachers' Perceptions of Language
Acquisition and Instructional Practices for English Learners: A Mixed-Methods Study

by

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DISSERTATION ABSTRACT

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Doctor of Philosophy in Special Education

Title: Exploring the Impact of ESOL Endorsement Courses on Teachers' Perceptions of Language Acquisition and Instructional Practices for English Learners: A Mixed-Methods Study

A growing body of research highlights the role of teacher perceptions in shaping instruction, particularly for English Learners (ELs), whose academic and social outcomes often depend on how their language and cultural assets are recognized in the classroom. However, limited research has explored how in-service teachers' perceptions evolve during coursework or how those evolving perceptions relate to their instructional practices. This mixed-methods study investigates how a progression of two ESOL endorsement courses, one foundational and one advanced, may impact in-service teachers' perceptions of language acquisition and their intended instructional practices. Drawing on Lucas and Villegas' Linguistically Responsive Teaching framework and Feiman-Nemser's Tasks for Learning to Teach, the study integrates survey and vignette-based written response data. Survey responses ($n = 6$) were analyzed using Friedman tests to assess changes across three theoretically defined constructs. Results indicated that overall survey scores remained stable, but a statistically significant change was observed for Construct 1 (General Perceptions), $\chi^2(2) = 9.33, p = .01$, with a large effect size ($W = .78$). Pairwise Wilcoxon signed-rank tests were then run for Construct 1 to determine when this change occurred and revealed large effect sizes between beginning of Fall and end of Winter ($r = 0.9$) and Between Fall and Winter and end of Winter ($r = 0.9$), though adjusted p-values did not reach significance. Vignette responses showed evidence of instructional shifts, particularly in scaffolding, assessment practices, and interaction structures (e.g. peer collaboration). The

convergence, divergence, and complementarity between quantitative and qualitative data underscore the layered, nonlinear nature of teacher learning. These findings suggest that sequential ESOL coursework can foster instructional changes, even when perceptual changes are still in development.

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DEDICATION

To my daughters Madelyn (Maddie) and Jocelyn (Jojo): Your curiosity, compassion, and boundless creativity inspire me every day. Watching you discover the world has reminded me that learning should be an adventure. One that sparks wonder, encourages growth, and shapes how we see ourselves and others. May you always approach life with the same fearless curiosity and open hearts that make you both so remarkable.

To my past and future students. This work is for you. Your questions, your growth, and your unique perspectives have shaped my commitment to equity and understanding.

Education matters. How learners learn matters. You matter.

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CHAPTER I

INTRODUCTION

Perceptions are the lenses through which individuals interpret and engage with the world, influencing their interactions and decisions (Richardson, 1996). In educational settings, teachers' perceptions profoundly affect their instructional choices and relationships with students (Pajares, 1992). These perceptions, shaped by personal experiences and cultural backgrounds, determine how teachers view student abilities and potential (Fang, 1996; Gallagher & Scrivener, 2024).

Language acquisition is one area where teacher perceptions hold particular significance. Language is foundational to all aspects of thinking and learning, serving as a tool for students to process their experiences, connect new knowledge to prior understanding, and communicate within diverse communities of learners (Cummins, 2000; Vygotsky, 1978). For students acquiring a second language, known as English Learners (ELs) in U.S. educational policy, language development is not only integral to academic success but also crucial for personal and social growth (Oliver & Azkarai, 2017). Teachers' perceptions about how students learn a second language can influence their expectations for these students and the instructional practices they use (Borg, 2003). The influence teachers' perceptions of language acquisition have on their instructional practices, coupled with the continued growth in the number of ELs in United States (U.S.) public schools, underscores the urgency in understanding these perceptions. The approximately 5.4 million ELs who were enrolled in U.S. public schools in 2021 (National Center for Education Statistics [NCES], 2024), and those that have followed bring valuable assets such as cross-cultural perspectives and unique lived experiences that enrich their schools and communities (Moll et al., 1992; Waddington & Esteban-Guitart, 2024; Yosso, 2005). Teachers who view ELs' native languages and cultural backgrounds as assets are more likely to

implement inclusive practices that support academic growth and social integration (Lucas & Villegas, 2013). Conversely, deficit-based perspectives, which focus on perceived limitations, can lead to lower expectations and less effective instructional practices, ultimately hindering ELs' academic success (García & Kleifgen, 2010; Glock & Krolak-Schwerdt, 2013).

Although in-service teachers espouse a commitment to supporting all students, many in-service teachers feel unprepared to meet ELs' linguistic and cultural needs. Results from two surveys indicate that 48% of 252 in-service teachers across multiple districts (Council of the Great City Schools, 2013, p. 8) and 68% of 2,558 teachers across 43 states (Wynn & Zahner, 2022) reported lacking confidence in implementing effective instructional practices for ELs. This lack of preparation often stems from pre-service teacher training programs that prioritize general education practices over the specific knowledge and instructional practices required to support language acquisition (Harper & de Jong, 2009). While such specialized knowledge is often developed through dedicated coursework or endorsement programs rather than pre-service training programs, many general education teachers encounter ELs in their classrooms regardless of whether they have received targeted training. This gap underscores the urgency of ensuring all teacher preparation efforts, both specialized and general, equip educators with the tools to provide services to linguistically diverse students.

As Villegas (2007) argues, teachers' perceptions serve as powerful lenses through which they interpret and organize new concepts, fundamentally shaping how they understand and apply new knowledge. Therefore, teacher education must not only provide theoretical and practical knowledge but also address the perceptions that guide how teachers see and engage with their students. Programs such as English for Speakers of Other Languages (ESOL) endorsement coursework offer an opportunity to address both theoretical knowledge and actionable

instructional practices, empowering in-service teachers to leverage their learning in ways that support and celebrate the strengths of linguistically diverse learners.

To maximize the effectiveness of these programs, they must be continuously evaluated to ensure they foster changes from deficit-based to asset-based perspectives if they exist, address misconceptions around language acquisition, and empower teachers to adopt instructional practices that support ELs' academic and linguistic growth. Research underscores that effectively teaching ELs requires more than generalized "good teaching" approaches (Yoon, 2008). It demands an understanding of the social, cultural, and historical contexts that shape ELs' experiences, and the adoption of targeted practices designed to support and motivate them (de Jong & Harper, 2005; Lucas & Villegas, 2011). By helping in-service teachers develop deeper knowledge about language acquisition and promoting positive shifts in perceptions, ESOL endorsement programs have the potential to influence whether and how teachers adopt new instructional practices, ultimately creating classrooms where ELs' linguistic diversity is recognized as a strength and not a barrier.

This dissertation investigates whether the progression of ESOL endorsement coursework from foundational to advanced classes can influence in-service teachers' perceptions of language acquisition and instructional practices. By examining whether these courses can change deficit-based perceptions or reinforce asset-based perceptions and address persistent misconceptions about language acquisition, this study contributes to the broader discourse on in-service teacher development and its potential to advance equity for ELs.

Problem Statement

The lack of adequate training for supporting students classified as ELs remains a critical issue in U.S. education, affecting both pre-service (e.g., Barros et al., 2020) and in-service (Gras

& Kitson, 2021) teachers. Many in-service teachers enter the classroom without prior training in language acquisition or culturally responsive practices, leaving them unprepared to effectively support ELs learning (e.g., de Jong & Harper, 2005). This lack of preparation can perpetuate deficit-based perceptions or reliance on misconceptions about ELs, negatively impacting students' academic and social outcomes (Carley Rizzuto, 2017). Untrained teachers have the potential to struggle to provide rigorous and engaging learning environments that fully recognize and utilize ELs' linguistic and cultural strengths (e.g., Glock & Krolak-Schwerdt, 2013). These environments can contribute to gaps in ELs' understanding of core concepts, hindering academic progress (Dabach, 2014; Kanno & Kangas, 2014).

Additionally, without knowledge of effective scaffolding strategies, teachers may leave ELs without the necessary support to access the curriculum. Without appropriate scaffolding, ELs often experience frustration, decreased self-esteem, and lower motivation to participate in classroom activities. Over time, these struggles can lead to disengagement, increasing the risk of school dropout among ELs (Blaise, 2018; Doll et al., 2013; Rodriguez et al., 2020.)

Another pressing issue is the misidentification of ELs' typical language acquisition processes, which can lead to both the over- and under-identification of learning disabilities, which in turn can lead to inappropriate academic supports (Artiles et al., 2010). Such misdiagnoses, caused by the lack of teacher preparation, prevent students from receiving language-focused support they need (Counts et al., 2018; Umansky et al., 2017). Additionally, cultural misunderstandings between teachers and families of these EL students can further isolate students, reduce parental involvement, and create unwelcoming classroom environments (Dotterer & Wehrspann, 2015).

Significance of the Study

Understanding teachers' perceptions is essential because they shape the learning environments they create and the instructional strategies they adopt, ultimately influencing student outcomes (Fives & Buehl, 2012; Pajares, 1992). For English Learners (ELs), teacher expectations and attitudes are particularly consequential. Research has consistently shown that teachers who hold high expectations and view ELs' cultural and linguistic assets as strengths are more likely to foster academic success (Samson & Collins, 2012). For example, Portes et al. (2018) conducted a randomized controlled trial examining the effects of culturally responsive instructional conversations in general education elementary classrooms. Their findings indicated that teachers who employed culturally relevant pedagogy, such as integrating students' backgrounds into instruction and encouraging rich, context-based dialogue, observed increased engagement and academic performance among ELs. Similarly, Wright et al. (2020) found that teachers who hold affirming perceptions about ELs cultural and linguistic assets are more inclined to employ supportive instructional practices such as differentiated questioning and scaffolding, which enhance ELs engagement and literacy outcomes. Conversely, deficit-oriented perceptions, those that focus on what ELs lack, can lower academic expectations and restrict access to cognitively demanding instruction, reinforcing existing inequities (Glock & Krolak-Schwerdt, 2013). Umansky and Dumont (2019) found that even when ELs performed comparably to their monolingual peers, their classification status led some teachers to lower expectations, with lasting effects on instructional decisions. This underscores the need for teacher education programs to intentionally disrupt these deficit narratives and promote asset-based perspectives.

Although teacher training is widely recognized as an avenue for improving instructional practices for ELs (Barros et al., 2020; Daniel & Pray, 2017; Gras & Kitson, 2021; Schneider & Costner, 2021), few studies have explored how specific sequences of ESOL coursework influence teachers' evolving perceptions and practices. This study addresses that gap by examining how in-service teachers' views shift across foundational and advanced ESOL endorsement courses, offering insight into when and how conceptual change occurs.

Theoretically, this research contributes to the growing body of work linking teacher perceptions with classroom practices, particularly in linguistically diverse settings (Gallagher & Scrivener, 2024; Lucas & Villegas, 2011). It also responds to systematic reviews that call for deeper analysis of the interplay between teacher cognition and instruction (Fang, 1996; Gilakjani & Sabouri, 2017). Methodologically, it examines perception change over time, using both quantitative and qualitative data to explore internal shifts and external application.

Practically, this study has implications for teacher preparation programs, professional development initiatives, and instructional coaching models. Findings may guide program designers in structuring ESOL coursework that promotes enduring, evidence-based shifts in perceptions about language acquisition and ELs' academic potential. These changes, while not directly assessed in terms of EL student outcomes, have strong potential to affect them by fostering more equitable learning environments.

Ultimately, this research affirms that teacher perceptions are not merely reflective of attitudes, they are levers for educational change. By identifying how targeted coursework influences these perceptions, the study supports more intentional efforts to prepare educators who can meet the needs of an increasingly multilingual student population.

Purpose of the Study

The purpose of this mixed-methods study is to explore if and how in-service teachers' perceptions of language learning and effective instructional practices evolve as they progress through two ESOL endorsement courses. Specifically, this study seeks to investigate whether and how participation in these courses might influence participants' asset-based perceptions, address persistent misconceptions about language acquisition, and shape their instructional practices for supporting ELs.

Research has shown that teachers' perceptions about language acquisition significantly impact their instructional decisions and practices (Fang, 1996; Gallagher & Scrivener, 2024; Gilakjani & Sabouri, 2017). However, limited research has examined how perceptions and instructional practices evolve following targeted intervention through a progression of ESOL endorsement courses. By combining quantitative and qualitative data, this study will provide a nuanced analysis of how teachers' perceptions might change as they progress through coursework, addressing both their understanding of language acquisition and the instructional changes necessary to create equitable and effective learning environments for ELs.

Research Questions

RQ1: Does the type of coursework or progression from foundational to advanced ESOL courses influence in-service teachers' perceptions of language development?

Hypothesis for RQ1: After completing the foundational course (Fall), teachers are expected to demonstrate changes or stability in higher scores in the constructs of *general perceptions about language learning* and *perceptions of student characteristics related to language learning*.

Following the advanced course (Winter), changes or stability in higher scores are anticipated in the construct of *perceptions of instructional practices*. Stability at the higher scores for each

construct may indicate well-developed perspectives with little room for change (a ceiling effect), while stability at lower scores may suggest limited impact of the courses on these perceptions.

RQ2: Does the progression from foundational to advanced ESOL endorsement courses influence in-service teachers' instructional practices for supporting English learners, as demonstrated through their responses to a vignette?

Hypothesis for RQ2: After completing the advanced ESOL endorsement course (Winter), in-service teachers are expected to demonstrate increased use of research-based instructional practices for supporting ELs in their vignette responses compared to their responses following the foundational course (Fall). Even if instructional practices already align with research-based approaches, the advanced course may further refine these practices.

RQ3: What are the quantitative and qualitative similarities and differences between teachers' perceptions of language acquisition and their descriptions of instructional practices at the end of each course?

Hypothesis for RQ3: After the completion of the advanced ESOL endorsement course (Winter), in-service teachers' quantitative perceptions of language acquisition will align with their qualitative descriptions of instructional practices. Convergence is expected where teachers hold high and consistent scores on their perceptions on language acquisition, and this will be reflected in their instructional practices. Divergence may occur where perceptions (high scores on the survey) do not align with the described instructional practices (e.g., valuing communicative language teaching but describing teacher-centered practices such as lecture based where the students are passive recipients of knowledge), highlighting challenges in applying theory to practice. Complementarity will arise as qualitative data provides context to survey results,

offering a fuller understanding of how teachers' perceptions and practices interact, change, or remain consistent.

CHAPTER II

LITERATURE REVIEW

Theoretical Framework

The theoretical framework for this dissertation draws on Lucas and Villegas' (2011) Linguistically Responsive Teaching (LRT) model, which they extended to align with Feiman-Nemser's (2001) Tasks for Learning to Teach (Lucas & Villegas, 2013). Originally, the extended framework (Lucas & Villegas, 2013) was used to provide a foundation for pre-service teacher education. However, this study posits that this extended framework is also relevant for in-service teachers who are continuing to develop professionally. This extended framework provides a lens to explore how and if new knowledge gained from ESOL certification courses influences in-service teachers' perceptions of language acquisition and their instructional practices to meet the needs of ELs.

Origins of Linguistically Responsive Framework (LRT)

The Linguistically Responsive Framework (LRT) was created by Lucas and colleagues (2008) to address gaps in teacher preparation programs, which often lacked adequate focus on the needs of linguistically diverse students. In 2011, they expanded the framework to include orientations essential for understanding multilingual students. These orientations are: (a) sociolinguistic consciousness; (b) valuing linguistic diversity; and (c) an inclination to advocate for ELs. In addition to these orientations, the framework also emphasizes essential knowledge and skills, including: (a) learning about ELs' backgrounds, experiences, and proficiencies; (b) identifying the language demands of the classroom; (c) applying the principles of language learning; and (d) scaffolding for EL students. The combination of the teacher orientations and knowledge and skills were designed to help develop pre-service competencies for linguistically

responsive teachers, emphasizing that good teaching alone does not fully meet the needs of EL students (Lucas & Villegas, 2011).

Alignment with Feiman-Nemser’s Tasks for Learning to Teach

Lucas and Villegas (2013) expanded their LRT framework by mapping it onto Feiman-Nemser’s (2001) Tasks for Learning to Teach. This alignment integrates the developmental process of teacher learning with a focus on preparing teachers to meet the academic needs of linguistically diverse students. The Tasks for Learning to Teach include (a) analyzing beliefs and forming new visions; (b) developing subject matter knowledge; (c) understanding learners and learning; (d) building an instructional repertoire; and (e) developing tools to study teaching.

Tables 1 and 2 represent how these tasks align with the LRT framework.

Table 1

Alignment of Tasks for Learning to Teach Framework to Orientations Essential for Understanding Multilingual Students of the LRT Framework

Tasks for Learning to Teach (Feiman-Nemser, 2001)	Orientations Essential for Understanding Multilingual Students (LRT; Lucas & Villegas, 2011)
Analyzing beliefs and forming new visions	Sociolinguistic consciousness a. Understanding the connection between language, culture, and identity b. Sociopolitical dimensions of language use and language education
Developing understanding of learners and learning	Value of linguistic diversity
Developing tools to study teaching	Inclination to advocate for ELs

Note. Modified table from Lucas and Villegas (2013).

Table 2

Alignment of Tasks for Learning to Teach Framework to Essential Knowledge and Skills of the LRT Framework

Tasks for Learning to Teach (Feiman-Nemser, 2001)	Essential Knowledge and Skills of LRT (Lucas & Villegas, 2011)
Developing subject matter knowledge for teaching	Learning about ELL students' backgrounds, experiences, and proficiencies. Identifying the language demands of classroom tasks Applying principles of language learning <ol style="list-style-type: none"> a. Conversational vs. academic b. Comprehensible input c. Social interaction importance d. First to second language transfer e. Anxiety's impact on learning
Developing a beginning repertoire	Scaffolding for ELL's learning

Note. Modified table from Lucas and Villegas (2013).

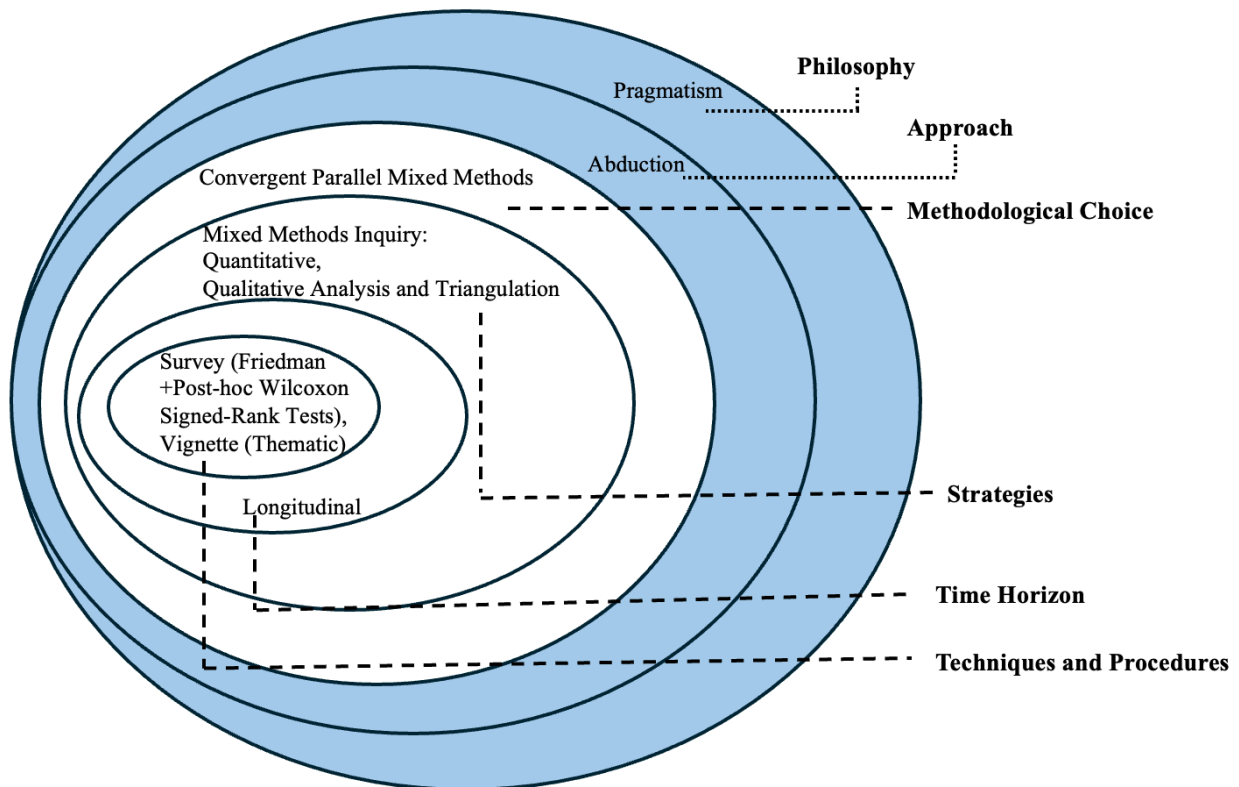
The expanded framework (Lucas & Villegas, 2013) highlights the developmental nature of teacher learning, requiring teachers to critically reflect on their beliefs and perceptions while actively integrating new knowledge and strategies into their practices. Guskey (2002) emphasized that changes in teachers' perceptions and practices are more likely to occur when training provides observable and meaningful outcomes in the classroom. Similarly, Borg (2011) found that reflective and context-specific training could lead to significant changes in teacher perceptions, which shows the importance of linking theoretical knowledge with practical application. The expanded framework (Lucas & Villegas, 2013) serves as a lens to guide the

evaluation and analysis of how ESOL coursework influences teachers' perceptions and instructional practices.

To systematically design and articulate the methodology supporting this investigation, the research onion model (Saunders et al., 2007) is used. This layered model parallels the conceptual and practical considerations informed by the expanded LRT framework (Feiman-Nemser, 2001; Lucas & Villegas, 2013). By adopting a structured approach, this dissertation ensures coherence between its theoretical foundation and research objectives. Refer to Figure 1 for a visual representation of the research onion model (Saunders et al., 2007).

Figure 1

The Research Onion Model: Stages of The Dissertation Methodology Development



Note. Adapted from Sanders et al. (2012)

Teacher Perceptions and Their Impact on Knowledge and Practice

Within the literature, there is a clear distinction between teachers' perception and beliefs, both of which play a role in shaping their instructional practices. Beliefs are deeply ingrained, often reflecting long-standing personal experiences and cultural influences and are resistant to change (Pajares, 1992; Richardson & Placier, 2001). In contrast, perceptions are more fluid and context-dependent, making them more responsive to interventions, such as ESOL endorsement programs (Borg, 2011; Guskey, 2002). This dissertation focuses on perceptions, as they hold a greater potential to be influenced by new knowledge gained through courses in ESOL endorsement programs.

The literature provides a range of theoretical models and empirical studies that help explain how and why teacher perceptions can shift. This body of work spans foundational theories about perception formation, research on motivation and professional development, and more recent reviews addressing language learning and multilingual education. The following section outlines key contributions that inform the present study's focus on perception change among in-service teachers enrolled in ESOL endorsement coursework.

In the early 1990's, Pajares (1992) provided a foundational theoretical explanation for the influence of teacher beliefs on classroom practice, emphasizing their role as filters for new knowledge. Guskey (2002) highlighted the adaptability of perceptions, suggesting that well-designed professional development could encourage teachers to reframe assumptions and adopt more effective instructional practices. Borg's (2011) research later built on these ideas by examining how language teachers' beliefs and perceptions evolve, finding that while beliefs often remained static, perceptions could shift when teachers participated in reflective, context-relevant training. This potential for shifting perception has also been particularly evident among

teachers who voluntarily pursue opportunities to develop professionally. Research suggests that these educators often exhibit a higher degree of intrinsic motivation, driven by a commitment to improving their instructional practices and better meet the needs of their students (Guskey, 2002; Knowles et al., 2005). Autonomy-supportive environments, as described by Deci and colleagues (1991), are those that encourage individuals to take initiative and make self-directed choices in their learning, fostering a sense of ownership and engagement. For teachers, this means opportunities to self-select professional opportunities that align with their needs and interests, which can further enhance motivation. This aligns with Borg's (2011) findings, which highlight the importance of reflective, context-relevant training in reshaping teacher perceptions.

Two recent systematic reviews, (Gallagher & Scrivner, 2024; Kim, 2021) have expanded the field's understanding of the dynamic interplay between teachers' perceptions and their instructional practices. Kim (2021) described the complex ways in which teacher beliefs and perceptions shape their approach to supporting language acquisition, underscoring a persistent gap between theoretical understanding and classroom application. Similarly, Gallagher and Scrivner (2024) underscored how deficit-based perceptions about multilingual learners often coexist with inconsistent application of inclusive practices. Both reviews reveal that interventions, such as ESOL coursework, can address gaps in teachers understanding, but challenges remain in sustaining these shifts over time.

Lightbown's (2000) work provided valuable insights into how second language acquisition research translates into classroom practice. By emphasizing the importance of experiential learning and teacher engagement and pairing it with evidence-based strategies, Lightbown laid the groundwork for the development of tools like the Lightbown and Spada (2013) survey, which has been used as a critical measure for understanding teacher perceptions

about language learning processes. Building on Lightbown's framework, Qiao's (2024) research demonstrated that teacher perceptions of language acquisition are heavily influenced by their experiences and the pedagogical tools provided during training. These findings align with Guskey's (2002) model, which posits that immediate classroom applicability is a key driver of shifts in teacher perceptions.

Empirical studies further underscore the need for targeted interventions to challenge deficit-based perceptions. Lucas and Villegas (2013) examined how teachers' perceptions of ELs' linguistic and cultural diversity could transition from deficit-based to asset based when teachers engaged with linguistically responsive teaching frameworks. They found that teachers frequently attributed academic struggles as inherent deficiencies in ELs rather than systemic barriers or inadequate instructional support. These deficit-based judgments not only shaped teachers' expectations, but also affected the opportunities they provided to students, including the quality of feedback, instructional resources, and encouragement to engage in higher-order learning tasks. These findings resonate with Gallagher and Scrivner's (2024) conclusion that persistent deficit ideologies hinder the implementation of inclusive practices, even among well-intentioned educators.

Collectively, this body of research highlights the importance of ensuring that programs that focus on preparing teachers to support ELs include instructional content that both challenges misconceptions about language acquisition and reinforces asset-based instructional practices, fostering effective and equitable teaching. Yet gaps remain in understanding how program structures, particularly those that balance theoretical knowledge with practical application, impact teachers' perceptions, and in turn their instructional practices. This dissertation explores these dynamics by analyzing teacher perceptions over time, contributing to the growing

discourse on how to bridge the gap between perceptions and sustained instructional improvements.

Measurement of Teacher Perceptions

Examining teacher perceptions is critical for understanding how these views influence knowledge acquisition and instructional practices. To effectively capture teacher perceptions, several instruments have been developed, each designed to measure specific aspects of teaching and learning. A comparison of the tools shows that they vary in their focus, addressing elements such as teacher self-efficacy, perceptions of effective instruction, and broader beliefs about language acquisition. Each contributes to understanding teacher perceptions while also highlighting the need for more comprehensive measures like the survey developed by Lightbown and Spada (2013).

Instruments measuring teacher self-efficacy, such as the Culturally Responsive Teaching Self-Efficacy Scale (CRTSE) developed by Siwatu (2007), assess pre-service teachers' confidence in implementing culturally responsive teaching practices, including those relevant to linguistically diverse students. Similarly, the Teacher Sense of Efficacy Scale (TSES) by Tschannen-Moran and Hoy (2001) evaluates teachers' self-efficacy in managing classrooms, engaging students, and implementing instructional strategies. While these tools provide valuable data on teachers' confidence in their abilities, they do not directly address perceptions of language acquisition, leaving a gap in understanding the specific perceptions related to how languages are learned.

Surveys examining teaching perceptions and instructional practices provide valuable insights into how educators' perceptions influence their practices in the classroom. These instruments often focus on the alignment between teachers' perceptions and their teaching

methodologies, shedding light on how perceptions translate into actionable strategies. For example, the Perceptions and Practices in Language Teaching Survey examines the connection between teachers' instructional practices and their pedagogical perceptions. White et al. (2021) used the survey in a study involving 38 university-level Spanish and French professors with expertise in literary and cultural studies. They explored participants' training in second language acquisition (SLA) and language pedagogy, familiarity with communicative language teaching, and their classroom practices. Similarly, the survey developed by Milbourn and colleagues (2017) focused on teachers' self-reported instructional practices in linguistically responsive teaching. This instrument provides insights into how teachers perceive their ability to support linguistically diverse students in their classrooms. While it offered valuable information on the implementation of linguistically responsive practices, its primary focus was on classroom strategies rather than the foundational perceptions about language acquisition that inform those practices. As a result, this tool is best categorized alongside other instruments that address specific instructional applications rather than providing a holistic understanding of teacher perceptions. Like self-efficacy measures, these surveys do not comprehensively assess perceptions of language acquisition but instead emphasize the practical implications of those perceptions in the classroom.

The Beliefs About Language Learning Inventory (BALLI), developed by Horwitz (1985), is a well-established tool for examining beliefs about language learning. Originally designed for use with college students, the BALLI has been widely applied to explore beliefs among learners and educators. For instance, Kuntz' dissertation (1996) used the BALLI to study the beliefs of 174 Arabic language students and their perceptions of effective language learning strategies. Similarly, Nikitina and Furuoka (2006) administered the BALLI to 239 Malaysian university

students, to examine cultural and situational influences on their beliefs. While the BALLI significantly contributed to understanding language learning beliefs, its focus on learners and lack of specificity for educators limits its applicability for assessing teacher perceptions of language acquisition processes.

In contrast, the survey developed by Lightbown and Spada (2013) offers a more holistic approach to assessing teacher perceptions of language acquisition. This instrument addresses many of the gaps left by other tools and has been applied in various studies, demonstrating its versatility and value. For example, Davis (2003) used the survey to compare the perceptions of 43 English language teachers and 120 Chinese students of English, revealing differences in their understanding of language learning processes. While both groups valued grammar instruction, students strongly endorsed behaviorist views, such as repetition and immediate correction, whereas teachers demonstrated greater alignment with communicative approaches. This discrepancy highlighted the tool's ability to distinguish between differing pedagogical perceptions across groups. In another study, MacDonald et al. (2001) employed the survey with 88 undergraduate and postgraduate students before and after a Second Language Acquisition (SLA) course, results showed significant shifts in their perceptions. Results showed significant shifts away from behaviorist and form-focused views and toward constructivist and communicative understandings of language learning. Participants also reconsidered earlier-held assumptions, such as the necessity of starting young to achieve fluency, showing that the survey could capture meaningful conceptual change. In a study with in-service teachers (n= 56) in Southeast Asia, Pitychoutis (2023) used the survey examine changes in their perceptions before and after completing an online SLA course. The study reported shifts in perceptions related to imitation, behaviorism, and grammar instruction, though views on error correction remained

stable. Notably, experienced teachers demonstrated more movement toward contemporary SLA perspectives, underscoring the tool's sensitivity to instructional background and professional experience. These applications highlight the survey's ability to capture nuanced perceptions of language acquisition across diverse populations and contexts.

By examining and comparing these instruments, it is evident that while many validated tools effectively measure specific aspects of teacher perceptions, they often lack a comprehensive focus on language acquisition processes. The Lightbown and Spada (2013) survey is distinctive in this regard, as it bridges theoretical perspectives with classroom practice by directly assessing perceptions about grammar instruction, error correction, etc. Studies have effectively used this tool to explore conceptual change and instructional alignment in diverse contexts, including pre-service and in-service teachers (e.g. Davis, 2003, MacDonald et al., 2001; Pitychoutis, 2023). These applications demonstrate the survey's utility in capturing nuanced shifts in perception over time, particularly following coursework grounded in second language acquisition theory. Its holistic design makes it particularly well suited for understanding how teachers internalize and apply concepts related to language learning within the context of formal teacher education. Unlike instruments designed for short-term professional development, this survey addresses deeper conceptual orientations shaped by structured coursework, making it an appropriate tool for investigating perception changes across the span of an ESOL endorsement program.

Program Impact on Teacher Knowledge and Practice

Although a substantial portion of research examines pre-service teacher preparation programs for supporting ELs (e.g., Barros et al., 2020; Busch, 2010; Daniel & Pray, 2017), there is growing attention to English for Speakers of Other Languages (ESOL) endorsement programs

for in-service teachers (e.g., Dubetz & Collet 2020; Gras & Kitson, 2021; Schneider & Costner, 2021). Pre-service programs primarily focus on equipping future teachers with foundational knowledge and general instructional practices. However, not all pre-service programs require specific training for supporting ELs, largely due to differences in state policies (Education Commission of the States, 2020) and the misconception that teaching ELs is equivalent to “just good teaching” for all students (Harper & de Jong, 2004, p. 152). As a result, many pre-service teachers enter the profession unprepared to address the unique linguistic and cultural needs of ELs, creating a critical need for targeted training.

General professional development often attempts to fill this void; however, such efforts typically consist of one-off workshops focused on singular strategies, which often lack the sustained engagement necessary to foster meaningful change in teacher practice (Desimone, 2009). Research has found that ESOL endorsement programs, by contrast, provide structured, long-term opportunities for teachers to deepen their understanding of language acquisition while developing actionable teaching practices. These programs tend to balance theoretical knowledge with practical application, highlighting their potential for long-term influence on teaching practices (Kim & Morita-Mullaney et al., 2020; Samson & Collins, 2012).

Research has illuminated the nuanced ways in which ESOL endorsement programs impact teacher knowledge and instructional practices. For example, Schneider and Costner (2021) investigated the outcomes of virtual ESOL endorsement courses offered during the COVID-19 pandemic. Their findings revealed that participants experienced increased confidence in differentiating instruction and integrating literacy practices across content areas. Teachers reported that the courses not only expanded their understanding of ELs’ linguistic and sociocultural needs but also equipped them to advocate more effectively for ELs within their

school communities. These changes were attributed to the courses' emphasis on connecting theoretical concepts with practical evidence-based strategies for supporting ELs, even in virtual settings.

Cummins (1992) emphasized the necessity of connecting theoretical frameworks to practical classroom applications, arguing that effective preparation of teachers requires policies at both institutional and instructional levels to support the integration of language acquisition theories into instructional strategies. Barros et al. (2020) extended this work by demonstrating how programs emphasizing multilingualism and culturally responsive teaching can challenge monolingual perspectives, encouraging teachers to recognize ELs as valuable contributors to the classroom. These findings align with Bian's (2021) findings that equity-oriented approaches in ESOL programs shift teachers' understanding of sociocultural dynamics. However, while these studies highlight the potential for ESOL programs to enhance teacher knowledge and challenge deficit-based views, they also reveal challenges in ensuring these changes (e.g., new knowledge and changes in perceptions) translate into practice.

Daniel and Pray (2017) explored the role of ESOL coursework in deepening teachers' comprehension of language acquisition processes and highlighted experiential learning as a critical factor in fostering changes in teacher attitudes. However, they found that despite gains in theoretical understanding, teachers often struggled to implement these shifts in their instructional practices. Similarly, Busch (2010) found that second language acquisition coursework broadened teachers' conceptual understanding of language learning but noted that a lack of applied learning opportunities frequently led teachers to revert to familiar methods, limiting the long-term impact of these programs.

The existing body of research highlights the potential of ESOL endorsement programs to enhance teacher knowledge, address deficit perceptions, and support the adoption of instructional practices which offer promising outcomes for ELs. However, critical gaps remain, particularly understanding the long-term effects of these programs on teachers' ability to sustain meaningful changes in their instructional practices. While studies such as Dubetz and Collett (2020) emphasize the need for longitudinal research and others like Diarrassouba (2017) and Gras and Kitson (2021) point to inconsistencies in program design and the importance of addressing teacher perceptions, these findings collectively underscore the necessity of a deeper examination of how endorsement programs bridge the gap between theoretical understanding and practical application. This dissertation seeks to address these gaps by investigating how the progression of ESOL coursework influences both teacher perceptions of language acquisition and their ability to translate this knowledge into inclusive, effective instructional practices, contributing to a more comprehensive understanding of the impact of these courses.

Measurement of Teacher Instructional Practices

In exploring the impact of programs on teacher knowledge and practice, it is essential to use tools that capture the nuanced ways educators apply their learning in real-world contexts. Vignette-based assessments have emerged as a valuable tool in educational research, particularly for examining teacher perceptions, instructional practices, and decision making (e.g., Baker & Weisling, 2022; Harris & Møller, 2021; Jeffries & Maeder, 2005). Defined by Hughes and Huby (2004) as “text, images, or other forms of stimuli which research participants are asked to respond [to]” (p. 37), vignettes provide hypothetical yet realistic scenarios that prompt participants to articulate their instructional approaches.

Vignettes are particularly advantageous for exploring complex issues, as they encourage participants to reflect on and apply their knowledge without the pressures of immediate decision-making (Sampson & Johannessen, 2020). Moreover, vignette-based assessments help mitigate the risk of socially desirable responses, which are more likely to occur in interviews or focus groups (Barter & Renold, 2000).

A key strength of vignettes lies in the ability to bridge the gap between theoretical knowledge and practical application. By simulating realistic scenarios, they provide insights into how teachers interpret and implement their knowledge while uncovering underlying perceptions and biases that may not surface through traditional methods, such as only relying on surveys (Jenkins et al., 2010). Given these advantages, vignette-based written responses were selected as an effective instrument for gathering data on instructional practices, aligning with this study's second aim of examining how the progression from foundation to advanced ESOL endorsement courses influences in-service teachers' approaches to supporting ELs.

Second Language Acquisition

Second Language Acquisition (SLA) is the dynamic and multifaceted process by which individuals learn a language beyond their native language, involving the development of cognitive, social, and pedagogical factors necessary for effective communication (Gass & Selinker, 2008). SLA research draws on insights from linguistics (e.g., Spinner & Gass, 2014), psychology (e.g., Al-Hoorie & MacIntyre, 2020), and education (e.g., Ellis, 2005) to examine how learners acquire, process, and internalize a second language.

While SLA research has explored perceptions in various contexts such as adult language learners' beliefs about language learning (e.g., BALLI, Horwitz, 1985), perceptions within foreign language learning environments (e.g., Kuntz, 1996), and EL teachers' needs and

challenges (Gandara et al., 2005), there remains limited understanding of how in-service teachers perceive the factors that influence SLA. This gap is significant as these perceptions shape instructional decision-making and classroom practices (Chen-Worley, 2023; Lightbown & Spada, 2013; Qiao, 2024).

The following subsection is organized into three key constructs:

- 1.) General perceptions about language learning, which include ideas about the role of imitation, grammar, and translation in SLA.
- 2.) Perceptions of student characteristics related to language learning, such as the influence of motivation, anxiety, and linguistic differences.
- 3.) Perceptions of instructional practices related to language learning, encompassing strategies like error correction, collaborative learning, and assessment practices.

Together these constructs provide a comprehensive lens for understanding how perceptions about SLA shape instruction.

Construct 1: General Perceptions About Language Learning

General perceptions about language learning encompass ideas about how language is acquired, focusing on different processes like imitation or grammar learning. Teachers who understand how languages are learned can implement instructional practices that are both effective and inclusive (Cummins, 2010; García & Wei, 2014; Lightbown & Spada, 2013). These perceptions shape expectations for both students and teachers, influencing how success is defined and achieved in language learning contexts.

For instance, some educators may perceive that second languages are primarily learned through imitation based on foundational behaviorist theories like those proposed by Skinner (1957). These theories emphasize the importance of repetition, reinforcement, and stimulus-

response patterns, suggesting that language acquisition is largely a matter of replicating observed sounds, words, and structures. While this perspective captures an important component of early language learning, it may not fully account for the complex, interactive, and socially situated nature of language development (Lightbown & Spada, 2013). Other educators emphasize the importance of grammar instruction, viewing it as a tool for analyzing and understanding the target language (Ellis, 2006; Valeo & Spada, 2016). However, viewing SLA primarily as rule-driven overlooks the communicative and contextualized nature of language, which is essential for real-world application (Krashen, 1976). Together, these views illustrate the spectrum of perceptions about language learning, ranging from naturalistic methods and interaction-driven methods to structured, rule-based approaches.

Building on this, Larsen-Freeman (2017) emphasizes that SLA is not a linear process but rather a complex and adaptive system shaped by the interplay between explicit instruction and learning a language naturally by hearing it and using it in everyday situations. This complexity highlights the need for teachers to adopt flexible, asset-based approaches that leverage the diverse linguistic and cognitive strengths ELs bring to the classroom (Cummins, 2010; García & Wei, 2014). Lightbown and Spada (2013) further highlight the role of mechanisms like imitation, pattern recognition, and metalinguistic awareness, which enables learners to construct meaning and refine their skills over time. These perspectives illustrate how language learning is influenced by a combination of structured teaching and organic, context-driven exposure.

While translation is a commonly used practice in SLA, relying exclusively on direct word-for word translation can limit long-term language growth by encouraging surface-level processing (Cook, 2001). However, when used strategically, translation can serve as a valuable scaffold for bridging comprehension gaps, particularly in the early stages of SLA, where it can

help learners quickly connect L2 forms with familiar L1 concepts, supporting early comprehension and confidence (Gultekin, 2021; Krashen, 1976). In contrast, cross-linguistic transfer (CLT) represents a deeper, more flexible cognitive process that goes beyond immediate comprehension, supporting more durable language development (García & Wei, 2014). CLT involves recognizing linguistic similarities, adapting to structural differences, and leveraging L1 knowledge as a cognitive resource (Alonso Alonso, 2016; Melby-Lervåg & Lervåg, 2011). For example, Alonso Alonso (2016) notes that learners often draw on familiar grammatical structures as cognitive scaffolds, allowing them to process and produce language more effectively. Similarly, in a meta-analysis conducted by Melby-Lervåg & Lervåg (2011) found that foundational skills like phonological awareness and decoding are particularly likely to transfer across languages. These skills provide a critical foundation for effective L2 learning, while oral language skills showed a smaller, though still significant, correlation. This suggests that while some aspects of language transfer readily between languages, others may require more targeted instruction and practice to develop fully. Together, these findings underscore the need for teachers to move beyond translation as the primary form of L1 support and instead adopt practices that actively promote cross-linguistic awareness, providing learners with the tools to draw on their full linguistic repertoire for deeper language learning (García & Wei, 2014).

Cultural and societal perceptions also shape teachers' perceptions about SLA. For example, the perception that early language learning exposure ensures greater success (Cummins, 2010) or that certain languages are inherently harder to learn (Selinker, 1972) reflects broader societal attitudes toward language learning. Asset-based perspectives encourage teachers to recognize that all ELs, regardless of their linguistic or cultural backgrounds, bring valuable resources to learning. By examining these general perceptions, insight can be gathered into how

teachers conceptualize the nature of language acquisition and essentially, the instructional practices they consider to be effective.

Construct 2: Perceptions of Student Characteristics Related to Language Learning

Teachers' perceptions of student characteristics play a significant role in shaping instructional approaches and influencing students' SLA outcomes. Inherent characteristics, such as motivation, anxiety, and aptitude, as well as learned characteristics such as language and cultural practices can affect how learners engage with and progress in language learning.

Motivation is an important factor in language learning, influencing how learners engage with and persist in acquiring a second language. It is closely tied to individual student characteristics, such as self-efficacy and interest, which helps learners build confidence and sustain effort in learning a new language (Bernaus & Gardner, 2008; Olvera, 2015). Intrinsic motivation, driven by interest and enjoyment, fosters deeper engagement and persistence, enabling learners to immerse themselves in language use (Ng & Ng, 2015). Extrinsic motivation, guided by external goals such as grades, rewards, or recognition, provides structure and clear objectives helping learners focus on completing tasks and developing new skills, even when intrinsic interest is limited (Liu & Huang, 2011). Over time, extrinsic motivators can evolve into intrinsic motivation as students recognize the personal relevance and value of their language learning efforts, leading to greater autonomy and commitment (Ng & Ng, 2015).

Anxiety is another student characteristic influencing SLA, often perceived as a deficit that hinders student participation, confidence, and motivation. Teachers' perceptions of student anxiety play a role in shaping how they respond to it in the classroom. When anxiety is viewed through a deficit lens, it may lead to lowered expectations or limited opportunities for student engagement (Huang et al., 2010). However, if teachers perceive anxiety as a natural and

manageable part of the language learning process, they can adopt strategies to positively impact students' relationships with anxiety and facilitate better learning outcomes (Al-Saraj, 2014; Hashemi, 2010; Inada, 2021; MacIntyre & Gregersen, 2012). Research indicates that high levels of anxiety can negatively impact language acquisition by affecting learners' motivation and overall learning experience (Horwitz, 2017; MacIntyre, 2017). Hashemi's (2011) study, based on student self-reporting and classroom observations, found that low-anxiety classrooms fostered greater student confidence and engagement in language learning. These low-anxiety classrooms were characterized by supportive teacher-student relationships, culturally relevant content, and constructive feedback. Similarly, MacIntyre and Gregersen (2012) found that teachers who integrate activities such as role-playing and positive peer interactions create an environment where students feel safe to communicate, reducing anxiety and encouraging participation. Al-Saraj (2014) emphasized that culturally responsive teaching practices tailored to students' linguistic and cultural contexts can alleviate stress, enhance engagement, and improve academic outcomes. When teachers adopt an asset-based perspective, recognizing anxiety as an opportunity to build resilience rather than a barrier, they can be instrumental in transforming students' experiences with learning a new language (Inada, 2021). Such perceptions not only promote student confidence but also enable the development of inclusive instructional practices that enhance both language acquisition and overall well-being (Cummins, 2016; Kim & Weng, 2022).

Cognitive aptitude, or a student's capacity to learn and process language, should be viewed as a dynamic and developable, rather than fixed, ability. Research in SLA suggests that learners' aptitude can improve through explicit instructional approaches and metacognitive strategies that promote conscious reflection, goal setting, and progress monitoring. As evidenced

in a comprehensive review of cognitive and metacognitive reading strategies for ELs, these approaches were found to be effective in enhancing language proficiency and reading comprehension (Ali & Razali, 2019). For example, studies show that when learners engage with structured, strategy-driven instruction, they enhance their language acquisition abilities, challenging the misconception that aptitude is inherently limited (Ardasheva et al., 2017; Doughty, 2019). From an asset-based perspective, teachers should recognize that all learners possess unique cognitive strengths, even when differences between their first language (L1) and the target language (L2) present initial complexities. For example, students whose L1 uses a logographic system like Chinese may need to develop phonemic awareness and letter-sound correspondences when learning English, an alphabetic system. Research shows that these learners are fully capable of developing such skills through targeted instruction (Yeong & Rickard Liow, 2012). Similarly, Chow and colleagues (2005) found that Chinese-speaking learners developed metalinguistic awareness skills and cognitive flexibility while acquiring English vocabulary, underscoring the cognitive benefits of navigating distinct language structures.

Although these differences may require additional cognitive effort, they foster skills that enable learners to analyze and adapt to new language structures. Metalinguistic and cognitive flexibility are essential skills for mastering a second language and highlight the importance of leveraging students' diverse linguistic knowledge as an asset in SLA (Cummins, 2016). Reframing SLA as a dynamic and developmental process rather than a fixed ability allows teachers to create environments that foster growth, celebrate learners' potential, and challenge deficit-based views. This perspective aligns with research showing that aptitude is malleable and

can be nurtured through thoughtful instructional strategies (Ardasheva et al., 2017; Ali & Razali, 2019).

Teachers' perceptions of cultural and linguistic diversity also shape their instructional practices. When there is a disconnect between students' home languages or cultural expressions and the dominant norms upheld in the classroom, it can impede learners' sense of belonging and engagement (Paris & Alim, 2014). To address these barriers, teachers are encouraged to adopt inclusive practices such as translanguaging (e.g., allowing students to use their full linguistic repertoire) and incorporating culturally relevant texts, which affirm learners' identities and promote equitable opportunities for success (Cummins, 2016; Kim & Weng, 2022). The funds of knowledge framework, introduced by Moll et al. (1992), further emphasizes that students' cultural, familial, and linguistic experiences are valuable resources in the classroom. Teachers who leverage these funds of knowledge by integrating oral and written English language instruction into content-area teaching can help ELs make sense of complex content while simultaneously building their academic vocabulary (Baker et al., 2014). Additional practices such as using graphic organizers, short videos, and structured discussions ensure that students can engage deeply with material, fostering both linguistic and academic growth (Baker et al., 2014).

By understanding student characteristics and the barriers they face, teachers can develop responsive, inclusive, and effective strategies. Adopting an asset-based perspective allows teachers to not only address the complexities of SLA but also leverage the strengths ELs bring to the classroom, promoting their confidence, engagement, and achievement in language acquisition.

Construct 3: Perceptions of Instructional Practices Related to Language Learning

Instructional practices are central to second language acquisition (SLA), as teachers' perceptions of effective methods shape their use of strategies and influence learner outcomes (Chen-Worley, 2023; Lightbown & Spada, 2013; Qiao, 2023). Effective instruction often integrates language development with academic content, emphasizing practices like error correction, collaborative learning, and meaningful assessment to support English Learners (ELs) in achieving both linguistic and academic success (Baker et al., 2014; Moll et al., 1992). These approaches reflect a combination of explicit instruction and opportunities for authentic language use.

Correcting errors is a critical yet complex component of language instruction, requiring careful consideration of its timing, method, and impact. For teachers to adopt an asset-based approach, they need to view errors as opportunities for growth and design their feedback to support both linguistic and academic development. Research highlights that effective corrective feedback, encompassing practices like explicit instruction, recasts, and metalinguistic prompts, fosters student engagement and language learning when thoughtfully implemented (Lyster & Ranta, 1997; Sheen & Ellis, 2011). However, some researchers caution that excessive or poorly timed error correction may undermine learner confidence and discourage active participation (López, 2023; Tomczyk, 2013; Truscott, 1996). They advocate for a balanced approach to error correction, targeting persistent errors that hinder communication or align with the learner's current language or academic goals, while creating a supportive environment that encourages risk-taking and views mistakes as essential to the learning process (Baleghizadeh & Abdi, 2010; Lyster & Ranta, 1997). For example, recasts as described by Baleghizadeh and Abdi (2010), involve a teacher reformulating a student's incorrect utterance during a conversation, allowing

learners to notice and internalize correct forms without feeling penalized. An example of this might be a teacher responding to, “She go to the park yesterday,” with, “Oh, she went to the park yesterday? That sounds fun!” integrating correction seamlessly into the dialogue. By focusing on both accuracy and learner confidence, this approach helps maintain engagement and supports progress in language development.

Asset-based strategies are integral to promoting inclusivity and engagement, emphasizing students’ linguistic strengths. By involving learners in the feedback process, teachers foster metalinguistic awareness and a sense of ownership over their learning, while culturally responsive approaches validate linguistic identities and reframe errors as opportunities for growth (García & Wei, 2014; López, 2023). For example, affirming correct structures in a student’s first language (L1) before discussing differences in the target language (L2) builds trust and supports their linguistic development. By employing these practices, teachers create classroom environments that align with an asset-based perspective, supporting both linguistic proficiency and learner confidence.

Collaborative learning is another essential instructional practice, offering students authentic contexts to develop communicative competence. Activities like group discussions, peer writing, and role-playing activities align with Swain’s (2005) Output Hypothesis, which emphasizes the importance of producing language to refine skills and identify gaps in understanding. Structured collaborative tasks enable students to practice language, negotiate meaning, and clarify misunderstandings (Baker et al., 2014). Additionally, pairing ELs with peers can foster shared learning and leverage their strengths, though teachers must also ensure proper scaffolding to avoid reinforcing errors during these interactions (Lightbown & Spada, 2013).

Perceptions of assessment practices also significantly influence instructional decisions. Teachers often grapple with the challenge of designing assessments that accurately reflect learners' progress while respecting their linguistic development. Formative assessments with scaffolds, such as visuals, sentence frames, or simplified instructions, offer a more inclusive way to evaluate both content knowledge and language proficiency (Baker et al., 2014). These practices help mitigate linguistic barriers, providing a clearer picture of student progress. However, misconceptions, such as the perception that assessments should only be conducted in the target language, can overlook ELs' broader capabilities and knowledge (Siegel & Ranney, 2014). By embracing formative, scaffolded assessments, teachers create a more supportive evaluation process that aligns with students' developmental needs.

By integrating strategies like error correction, collaborative learning, and meaningful assessment practices, teachers can better support ELs in developing both linguistic proficiency and academic confidence. These practices not only enhance language learning but also foster inclusive and equitable classrooms where students' strengths are recognized and leveraged for success.

Summary of the Literature

The literature underscores the pivotal role of teacher perceptions in shaping instructional practices for ELs, highlighting how these perceptions influence classroom practices, decision-making, and ultimately student outcomes (Borg, 2011; Lightbown & Spada, 2013; Lucas & Villegas, 2013). Unlike deeply ingrained beliefs, which are resistant to change, perceptions are more adaptable and responsive to interventions, such as ESOL endorsement programs (Borg, 2011; Guskey, 2002; Pajares, 1992). These programs integrate reflective practice, experiential learning, and culturally responsive frameworks, aiming to shift deficit-based views to asset-

based perspectives, address misconceptions, and foster inclusive and effective teaching practices (Gallagher & Scrivener, 2024; Kim, 2021; Lucas & Villegas, 2013; Qiao, 2024). However, translating theoretical insights into sustained classroom practices remains a persistent challenge, as teachers often revert to familiar methods in the absence of applied focus or ongoing support (Glock & Krolak-Schwerdt, 2013; Lightbown, 2000).

Research on ESOL endorsement programs highlights their potential to reshape teachers' perceptions and practices, but most studies emphasize pre-service training or short-term professional development (Dubetz & Collet, 2020; Schneider & Costner, 2021). There are no known studies that explore the progression or sequence of ESOL coursework, particularly how introductory courses compare to more advanced practice-oriented courses in influencing in-service teacher perceptions and instructional practices. This gap is significant, as understanding the developmental trajectory of ESOL programs is critical for designing interventions that foster long-term improvements in teacher perceptions, sustained instructional practices, and systemic educational equity.

Teacher perceptions about SLA processes, student characteristics, and instructional practices directly shape how ELs are supported in the classroom. Drawing on Lucas and Villegas' (2013) Linguistically Responsive Teaching (LRT) framework which integrates Feiman-Nemser's (2001) Tasks for Learning to Teach, this research emphasizes the importance of sociolinguistic consciousness, valuing linguistic diversity, and connecting theoretical knowledge to instructional practices. These frameworks provide a lens to examine how perceptions influence teaching practices and foster equitable educational opportunities for ELs. Perceptions of SLA, such as imitation, grammar instruction, and cross-linguistic transfer, influence how teachers approach language learning, balancing explicit instruction with

naturalistic acquisition to support students' development (Larsen-Freeman, 2017; Melby-Lervåg & Lervåg, 2011). Similarly, perceptions of student characteristics such as motivation, anxiety, and cultural diversity guide instructional decisions, with inclusive practices like translanguaging and culturally relevant texts fostering equitable and supportive environments (Cummins, 2016; Tian & Link, 2023). Perceptions of instructional practices such as error correction, collaborative learning, and assessments further enhance ELs' linguistic and academic success by promoting confidence and participation while respecting development needs (Baker et al., 2014; Lyster & Ranta, 1997; Tomczyk, 2013).

These perceptions and how they relate to instructional practices highlight the need for a deeper understanding of how teachers conceptualize and apply their knowledge of SLA. The literature consistently points to gaps in teaching in translating theory into sustained, inclusive classroom practices for ELs. While Lucas and Villegas' (2013) LRT model and Feiman-Nemser's (2001) developmental approach provide valuable guidance, there is limited research on how ESOL coursework influences in-service teachers' perceptions and practices over time. By examining the progression from foundational to advanced coursework, this dissertation seeks to address this gap, providing insights into how targeted professional development can bridge the divide between research-based principles and effective teaching practices. Ultimately, this work aims to foster equitable learning environments that support ELs' linguistic and academic success.

CHAPTER III

METHODS

This study investigates if and how the content of ESOL endorsement courses (foundational vs. advanced) impacts in-service teachers' perceptions of language acquisition and instructional practices. This study is guided by the need to understand the extent to which coursework can impact teachers' perceptions and in turn inform instructional practices used to support ELs. Pragmatism provides a guiding framework for this investigation, shaping both the study design and the analysis. This approach emphasizes methodological flexibility and real-world applicability, allowing the study to effectively explore the nuanced relationship between teacher perceptions and instructional practices (Onwuegbuzie & Leech, 2005). Unlike paradigms that confine researchers to singular methodologies, pragmatism emphasizes the importance of aligning methods with research questions and facilitating the integration of quantitative and qualitative approaches to reveal nuanced and contextualized insights (Teddlie & Tashakkori, 2003).

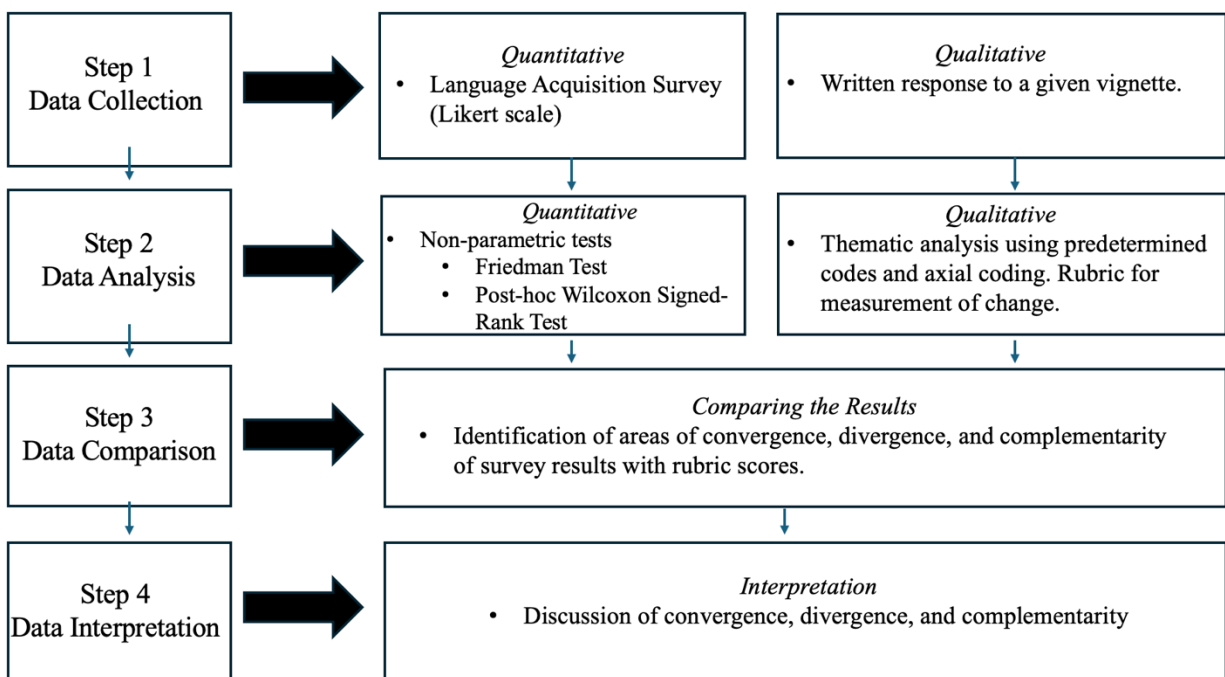
This study used a convergent parallel mixed methods design (Creswell & Creswell, 2022; Creswell & Plano Clark, 2017), which exemplifies pragmatism's strength in combining exploratory and confirmatory approaches within a single study framework. As Onwuegbuzie and Leech (2005) argue, mixed methods research effectively transcends the historical divide between quantitative and qualitative paradigms (Rossman & Wilson, 1985), fostering a comprehensive understanding of social phenomena (Maxcy, 2003). This approach is particularly relevant for investigating in-service teachers' evolving perceptions and practices, as it allows for the simultaneous collection and analysis of survey data and written, open-ended responses. The

integration of these methods provides a robust means of triangulation, complementarity, and elaboration, ensuring the validity and richness of the findings (Greene et al., 1989).

This study’s methodology followed Cresswell and Plano Clark’s (2017) framework for convergent parallel mixed methods research, which unfolds in four key steps (See Figure 2). First, the extant data from the surveys and vignette responses from the fall and winter course were collected concurrently. Second, the data was analyzed separately and independently. Third, the results of both analyses were merged to compare and identify areas of convergence, divergence, and/or complementary insights. Finally, these comparisons were interpreted to provide a comprehensive understanding of the diverse perceptions and instructional practices of the in-service teachers as a result of ESOL endorsement courses (Teddlie & Tashakkori, 2003).

Figure 2

Flow Chart of Convergent Parallel Mixed Methods Research Design



Note. Modified flow chart from Cresswell and Plano Clark (2017).

By situating the research within the pragmatic paradigm and aligning it with an established mixed-method framework (Cresswell & Plano Clark, 2017), this study aims to provide a holistic and actionable exploration of the impact of ESOL endorsement courses on in-service teachers' perceptions and practice.

Participants

Participants were recruited through convenience sampling (Gravetter & Forzano, 2019) from a 2024–2025 cohort of 27 in-service teachers enrolled in a stand-alone ESOL endorsement program at a college in the Pacific Northwest. Eleven in-service teachers initially consented to participate and completed the first survey. One participant withdrew during the winter course, resulting in a final sample of 10 participants.

This study includes two analytic groups: the full sample ($n = 10$), used for internal consistency analysis and item-level review, and a subset with complete data across all three time points ($n = 6$), used for longitudinal and integrated analysis. While eight participants completed all three surveys, only six completed all of the surveys and vignette responses.

All participants identified as female and were currently teaching English learners in their school settings. English was reported as the first language for all participants, with three in the full sample and two in the complete data subset also reporting Spanish as an additional language. As shown in Figure 3, 6 of teachers in the full sample (6/10) had over 10 years of teaching experience, while 4 teachers in the complete data subset (4/6) had 1–5 years of teaching experience. Most held a master's degree (9/10), and several reported holding additional certifications, such as Reading Intervention or subject-area endorsements in English Language Arts and Social Studies.

Figure 3
Teaching Experience

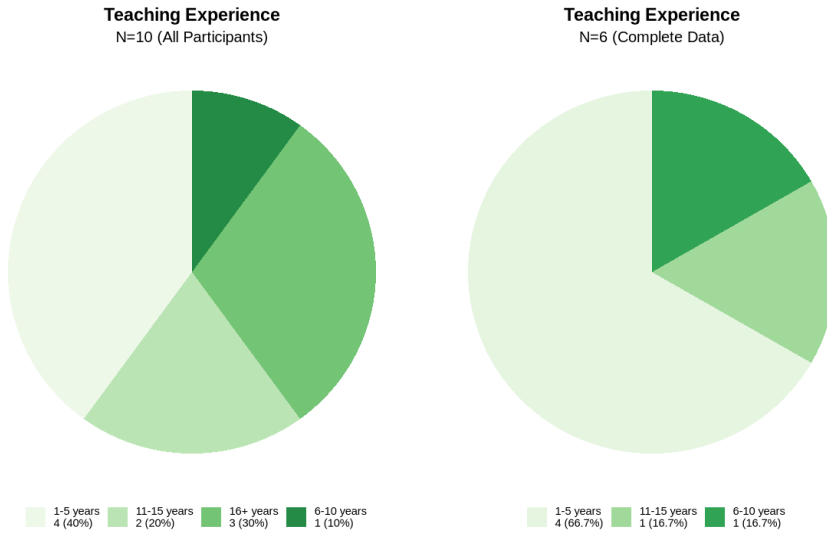


Table 3 summarizes additional participant demographics, including age, race/ethnicity, educational background, and licensure areas.

TABLE 3
DEMOGRAPHICS OF THE PARTICIPANTS

Category	Characteristic	For internal consistency of survey (<i>n</i> = 10)	For complete data across time points (<i>n</i> = 6)
Age	20-29 years old	1	1
	30-39 years old	4	4
	40-49 years old	3	1
	50-59 years old	2	0
Gender	Female	10	6
Race / Ethnicity	White / Caucasian	10	6
Highest Degree	Bachelor's Degree	1	1
	Master's Degree	9	5
Certifications	Elementary / Early Childhood Certification	6	3
	Middle School	1	1
	Other discipline: ELA / Social Studies	1	1
	None	1	1

To contextualize the instructional environments of participating teachers, Table 4 presents the percentage of English Learners in the school districts they serve. These district-level data help illustrate the linguistic diversity encountered by participants in their professional contexts.

Table 4

English Learner Population Percentage at School Districts That Our Participants Support (2023-2024)

School District	Total Students	% Ever ELs
Beaverton School District (<i>n</i> = 1)	38,066	28%
Creswell School District (<i>n</i> = 1)	1,107	6%
Dayton School District (<i>n</i> = 1)	846	27%
Eugene 4J School District (<i>n</i> = 2)	16,000	8%
Hood River County School District (<i>n</i> = 1)	3,757	38%
Newberg School District (<i>n</i> = 2)	4,027	16%
South Lane School District (<i>n</i> = 1)	2,636	8%
Tigard-Tualatin School District (<i>n</i> = 1)	11,496	23%

Note. Oregon Department of Education (2025)

Setting

The ESOL endorsement program that participants were enrolled in included four courses and one practicum designed to equip in-service teachers with the knowledge and skills needed to effectively instruct ELs. Only the Fall and Winter courses were used for this study. Both courses combined synchronous and asynchronous classes. During asynchronous weeks, in-service teachers engaged with course readings and completed dialogic journal entries to prepare for the collaborative discussions and applications used in synchronous Zoom sessions.

Fall Course Description

The fall course on EL instructional methods was designed to introduce foundational teaching practices that would be expanded in the subsequent winter course. The fall course emphasized practical applications of EL instructional practices, including lesson planning, language proficiency assessment, and fostering family engagement. Key projects included

dialogic journal entries, a family engagement action plan, and active participation in synchronous discussions.

Winter Course Description

The advanced winter course on ELs in the classroom built on the foundational instructional practices introduced in the fall and focused on advancing in-service teachers' abilities to support ELs in mainstream classrooms. The course included both synchronous and asynchronous components, allowing for in-service teachers to engage deeply with research-based practices for academic language development. During asynchronous weeks, students completed module review assignments to prepare for the interactive, project-based learning during synchronous Zoom sessions. The course emphasized practical applications such as gathering and analyzing assessment data, designing lesson cycles for academic language, and developing strategies for teaching academic vocabulary. Key projects included a lesson cycle plan, an assessment data report, and the development of an academic language lesson cycle.

Procedures

The Institutional Review Board (IRB) of the university approved this study in September 2024 (STUDY00001515). The study spanned the 2024–2025 academic year and utilized extant data from fall and winter ESOL endorsement courses. Following IRB approval, prospective participants were introduced to the study after their summer 2024 ESOL course. They were informed that full details, including the participant consent form and a link to the first survey, would be shared via the university's learning management system, Canvas (Instructure, 2024), during the fall course.

Participation was voluntary, and participants were provided a study overview, the data collection timeline (three surveys and two vignette-based written responses), and an offer of a

\$25 gift card upon study completion. One week prior to the start of the fall course, an email notified potential participants that the study module, consent form, and survey link were available. The consent form, hosted on Google Forms (n.d.), detailed the study's purpose, confidentiality protocols, participant protections, and the nature of participation. A reminder email was sent during the first week of their asynchronous course.

Prior to each survey and vignette response, participants were reminded of the study's objectives, estimated time commitment, right to withdraw, and option to skip any question. To ensure confidentiality, all identifying information was accessible only to the principal investigator and was de-identified before analysis.

Instrumentation

The two instruments, a survey and a vignette, were adapted and used in this study. The survey was designed to capture participants' broader perceptions of language learning, which may extend beyond the specific content of their coursework. In contrast, the vignette tasks were intended to assess how participants applied instructional strategies, providing insight into their practical implementation of linguistically responsive teaching concepts.

Survey

Survey data were collected at three distinct time points: at the beginning of the Fall 2024 course and at the beginning and end of the Winter 2025 course. Each survey consisted of the same set of questions ($n = 25$), presented in a randomized order to reduce potential response bias. Surveys were administered via Qualtrics (2024), allowing participants to complete them at their convenience within a designated time frame. The purpose of these surveys was to capture changes in participants' perceptions of language acquisition over time.

The survey was based on Lightbown and Spada's (2012) survey which explores teachers' perceptions about language acquisition. The original instrument (Lightbown & Spada; 2012) has been used and adapted nationally and internationally to gather data on language learning perceptions in various contexts (Davis, 2003; MacDonald et al., 2001; Pitychoutis, 2023; Qiao, 2024). Eleven items were added to Lightbown and Spada's (2013) survey. The additional questions were adapted from Samway and McKenon (2007) and Pettit (2011), along with input from the principal investigators of the ESOL project. The final survey consisted of 25 statements with a 5-point Likert (1932) scale: 1: *strongly disagree*; 2: *disagree*; 3: *undecided*; 4: *agree*; 5: *strongly agree*. The 25 statements cover four researcher-derived constructs: (a) General Perceptions about Language Learning ($n=10$); (b) Perceptions about Student Characteristics Related to Language Learning ($n=6$); and (c) Perceptions of Instructional Practices Related to Language Learning ($n=9$). The 25 question survey took participants on average 10 minutes to complete, as reported by Qualtrics (2024). The first survey was the only survey to collect 10 additional demographic questions about the participants. The last survey collected 6 additional questions about their Fall and Winter courses. The survey questions, alignments of construct-to-framework (Table B1), and additional demographic and course questions (Table B2) are provided in Appendix B.

The survey instrument used in this study was adapted from Lightbown and Spada (2013) and has been frequently used in studies on perceptions of language acquisition (e.g., Davis, 2003; MacDonald et al., 2001; Pitychoutis, 2023). Only one known study, Davis (2003), has reported reliability data, indicating moderate internal consistency (Cronbach's alpha = .72) based on responses from 18 teachers and 97 students. Beyond this, no comprehensive psychometric validation has been conducted. Specifically, there are no confirmatory factor analyses, no

construct validity testing, and no published evidence of external validity or cross-context generalizability. In the absence of these key indicators of technical adequacy, confidence in the precision and broader applicability of the instrument is limited. These limitations should be considered when interpreting survey findings.

Data Type and Handling the Randomized Questions

The survey data consists of ordinal data, meaning the responses are ranked or ordered, but the exact distances between ranks are not equal. For example, the Likert-scale response of *Strongly Agree* is higher than *Agree*, but we do not know by how much more, as the interval between the categories is not clearly defined (Harpe, 2015). This characteristic makes the data ordinal, unlike continuous numerical data where the difference between points is equal (e.g., temperature).

Since the survey questions were presented in a random order to participants at each time point to reduce response-bias (Groves et al., 2009), unique identifiers (e.g., Q1, Q2, etc.) will be used in the dataset to ensure that each participant's responses are mapped correctly to the corresponding survey questions during analysis. This mapping guarantees that the randomized order does not affect the consistency of the analysis, allowing a focus on participants' responses over time rather than on the order in which the questions were presented. Table B3 in Appendix B provides an overview of the master survey questions and their randomized presentation at each time point.

Reverse Coding and Cronbach's Alpha

The survey instrument (Lightbown & Spada 2013) was designed to measure participants' perceptions of language learning acquisition and incorporated positively and negatively framed items to reduce response bias (Dunsch et al., 2018). The purpose of reverse coding for this study

is to align directionality of Likert-scale responses so that higher scores (e.g., “5-Strongly Agree”) consistently represent more supportive, informed, and research-aligned perceptions of language learning and instruction.

Thirteen items were identified (Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q19, Q20, Q21, Q22, Q23, and Q24) for reverse coding based on a thorough review of their content in relation to contemporary second language acquisition (SLA) research (e.g. Lightbown & Spada 2013) and best practices in linguistically responsive pedagogy (e.g. Baker et. al., 2014). This approach allows for both item-level and construct-level mean scores to be interpreted as measures of positive perception change over time and ensures conceptual consistency in the analysis of the survey results.

Internal Consistency of Survey

Cronbach’s alpha was calculated for the overall survey and for each construct with a threshold of $\alpha = 0.70$, which has been established as acceptable reliability (Tavakol & Dennick, 2011). This will ensure internal reliability of the survey and its constructs, making sure the items measure what they intend to measure.

The following Cronbach’s alpha values were observed and compared with the threshold of $\alpha = 0.70$ an established as acceptable reliability (Tavakol & Dennick, 2011): (a) Construct 1: General Perceptions had acceptable reliability ($\alpha = 0.70$); (b) Construct 2: Student Characteristics had strong reliability ($\alpha = 0.87$); (c) Construct 3: Instructional Practices had moderately acceptable reliability ($\alpha = 0.69$); (d) Overall Survey had strong reliability ($\alpha = 0.89$).

Vignette

Vignette data was gathered at the end of the Fall 2024 course, and at the end of the Winter 2025 course. The vignettes were designed to prompt participants to apply the

instructional practices and concepts learned throughout their course to a hypothetical classroom scenario involving ELs. The prompts were also administered via Qualtrics (2024) after the Fall course, but participants had difficulty interacting with Qualtrics (2024) interface, so collection of data was pivoted to a Word Document sent via email to the participants and posted on their classes' Canvas page at each time point (Instructure, 2024).

A vignette was selected and modified from Framework, Snapshots, and Vignettes created by the Sonoma County Office of Education (2024). The vignette was modified to meet the needs of this study. Modifications included adding (a) an introduction to the setting; (b) end of unit objective; (c) lesson objective; (d) language objective; and € classroom overview. After reading the vignette, participants were asked to think about how they would approach designing a unit on ecosystems for a 5th-grade class during designated ELD instruction by answering 6 questions. The participants were informed that completing the vignette would require approximately thirty minutes to one hour of their time. For the vignette and open-ended prompts, refer to Appendix C.

Interrater Reliability For Coding Vignette Responses

For the coding of the vignette responses two trained raters with backgrounds as teachers independently applied these codes using binary scoring (1 = present; 0 = absent) to each Fall ($n = 6$) and Winter ($n = 6$) response. Interrater reliability was assessed separately for each time point using Cohen's kappa (Cohen, 1960), a statistical measure of agreement for categorical data. All discrepancies were reviewed and resolved through discussion, and final consensus codes were used in the comparison of themes and instructional practices over time.

Initial kappa values ranged from 0.35 to 0.50, representing fair to moderate agreement (Landis & Koch, 1977). Agreement percentages ranged from 65% to 78% (see Table 15). Following collaborative review, 100% consensus was achieved on final codes. These results

demonstrate an adequate initial level of agreement for qualitative research and provide confidence in the dependability of the coding procedures applied. The variance in agreement could be attributed to training as the primary researcher viewed sentence frames and paragraph frames as forms of grammar support, and those examples in the description were implied but not explicitly stated. See Table 5 for a summary of the Cohen’s Kappa results from predetermined codes.

Table 5

Initial IRR Metrics For Vignette Responses Before Consensus (Fall and Winter Together)

Question	Cohen’s κ	Agreement %
1	.40	70%
2	.35	65%
3a	.45	75%
3b	.50	78%
3c	.38	68%
4	.41	72%
5	.37	70%
6a	.44	74%
6b	.39	69%

Interrater Reliability for Rubric Scoring

To assess the reliability of scoring for the vignette responses using a structured rubric, inter-rater reliability (IRR) was calculated for each of the seven rubric dimensions. Two trained raters with backgrounds as educators, independently applied the rubric to participant responses from both Fall and Winter data collection points. Initial IRR metrics were computed using Cohen’s Kappa (κ ; Cohen, 1960) to adjust for chance agreement, along with percentage agreement for additional clarity.

Cohen’s Kappa values ranged from 0.40 to 1.00, indicating fair to almost perfect agreement (Landis & Koch, 1977). Three dimensions, Academic Vocabulary Instruction ($\kappa = .57$), Integrated Oral and Written Instruction ($\kappa = .48$), and Differentiated Support / Small Group ($\kappa = .50$), demonstrated moderate agreement with high percentage agreement (83%). The Writing Skill Development dimension yielded the highest κ among the What Works Clearinghouse recommendation (Baker et al., 2014) aligned categories (.65), although it had lower agreement overall (66%).

For the Linguistically Responsive Teaching (LRT) dimensions, Understanding of Language, Culture, and Identity ($\kappa = .40$) and Applied Principles About Language Learning ($\kappa = .42$) both showed fair agreement with 66% agreement. Notably, the Scaffolding for EL Students dimension achieved perfect inter-rater reliability ($\kappa = 1.00$, 100% agreement), reflecting full coder alignment prior to reconciliation. See Table 6 below for a summary of Cohen’s Kappa results for each dimension in the rubric.

Table 6

Initial IRR Metrics for Rubric Used for Vignette Before Consensus (Fall and Winter Together)

Source	Dimension	Cohen’s κ	Agreement %
WWC Rec 1	Academic Vocabulary Instruction	.57	83%
WWC Rec 2	Integrated Oral and Written Instruction	.48	83%
WWC Rec 3	Writing Skill Development	.65	66%
WWC Rec 4	Differentiated Support / Small Group	.50	83%
LRT	Understanding of Language, Culture and Identity	.40	66%
LRT	Applied Principles About Language Learning	.42	66%
LRT	Scaffolding for EL Students	1.00	100%

Following this initial analysis, all discrepancies were discussed collaboratively. After consensus was reached, every dimension achieved full agreement across raters, resulting in 100% finalized coder alignment for subsequent analysis.

Analysis

Data Analysis of Survey

Survey data was analyzed to answer the first research question on the impact of ESOL endorsement courses on in-service teachers' perceptions of language acquisition. The survey data consisted of responses to a 5-point Likert (1932) scale: 1: *strongly disagree*; 2: *disagree*; 3: *undecided*; 4: *agree*; 5: *strongly agree* collected at three time points. Prior to analysis, each survey was re-ordered to match the master survey list, appropriate items, were reverse coded, and internal consistency was assessed to ensure the reliability of the instrument. To determine whether changes occurred over time, tests for normality were conducted, followed by the non-parametric Friedman test. For constructs showing statistically significant results, post hoc pairwise comparisons were conducted using Wilcoxon Signed-Rank tests. Descriptive statistics were also used to explore trends at both the construct and individual level items. All analysis was conducted using R software (2021).

Testing for Normality

Because the survey data consists of ordinal Likert-scale responses, the assumption of normality for parametric tests is typically not met (Groves et al., 2009). However, to confirm this, a Shapiro-Wilk test was used to test the data's normality at each time point, as it is a common test for assessing the distribution of small sample sizes (Razali & Wah, 2011). This approach validates the use of non-parametric tests and provides transparency for the chosen analysis methodology. Given the nature of Likert-scale data and its likely non-normal

distribution, the Friedman and Wilcoxon Signed-Rank Test, both non-parametric tests, were used to analyze changes over time.

Inferential Statistics

To address research question one, whether the progression from foundational to advanced ESOL endorsement courses influences in-service teachers' perceptions of language development, a two-stage non-parametric approach was employed. This method was selected due to the ordinal nature of the survey data, the repeated-measures design, and the small sample size. These reasons collectively made non-parametric methods more appropriate than parametric alternatives (Harpe, 2015; Meek et al., 2007; Zimmerman & Zumbo, 1993).

The first stage involved the Friedman test (1937), a non-parametric alternative to repeated-measures ANOVA, to detect differences across three time points: beginning of Fall to Between Fall and Winter (BFW), BFW to end of Winter, and beginning of Fall to end of Winter. This test was conducted at three levels of analysis: the overall survey (aggregated across all items), each theoretical construct (e.g., General Perceptions About Language Learning; Perceptions of Instructional Practices), and individual survey items. Since the Friedman test does not assume normality or equal intervals between scale points, it is well-suited for ordinal, within-subjects data (Pereira et al., 2015; Zimmerman, 2012). Effect sizes were reported using Kendall's W, with benchmarks for small (0.10), moderate (0.30), and large (≥ 0.50) effects (Tomczak & Tomczak, 2014). For item-level analyses, the Benjamini–Hochberg procedure was applied to control the false discovery rate and minimize the risk of false positives due to multiple testing (Benjamini & Hochberg, 1995). By first using the Friedman test to screen for significant differences, the analysis avoided premature multiple comparisons and the need for unnecessary corrections, which could obscure meaningful patterns in the data (Pereira et al., 2015).

If significant results are found with the Friedman test, post hoc comparisons are conducted using the Wilcoxon Signed-Rank test (Wilcoxon, 1945) comparing each pair of time points (Fall to BFW, BFW to Winter, and Fall to Winter). To control for familywise error, the Bonferroni correction was applied ($\alpha = .017$). Effect sizes for Wilcoxon tests were calculated using the r statistic, with small (0.10), medium (0.30), and large (≥ 0.50) thresholds (Tomczak & Tomczak, 2014).

This two-stage approach reflects best practices for analyzing repeated ordinal data in small-sample educational studies (Zimmerman, 2012; Pereira et al., 2015), ensuring statistical rigor while maintaining sensitivity to meaningful change across time.

Data Analysis of the Vignette Responses

To answer the second research question about how different types of ESOL endorsement courses influence teachers' practices for supporting ELs, as demonstrated through their responses to a vignette, the researcher used a combination of deductive content analysis (Coffey & Atkinson, 1996) and reflexive thematic analysis (Braun & Clarke, 2006; 2020). This approach allows for a structured yet flexible analysis that incorporates both predetermined codes, grounded in the existing literature, and emergent codes that arise during the analysis process. By applying deductive content analysis within the framework of thematic analysis, this study ensures that the analysis remains informed by prior research while still being open to new insights from the data. A researcher-designed rubric was used as a holistic measure of change.

A customized spreadsheet was developed that included dropdown menus for selecting predetermined, possible emergent codes, and a free-text column for capturing unanticipated themes. Separate spreadsheets were created for the primary researcher and the interrater to support independent coding. To facilitate interrater comparison, the primary researcher's

spreadsheet also included additional columns to record both sets of codes side by side allowing for direct comparison and contrast of coding decisions for each participant response. This approach maintained systematic data organization and enabled manual review for intercoder agreement while allowing flexibility to adapt the coding framework as new patterns emerged. Similar spreadsheets were also created for rubric scoring.

Deductive Content Analysis With Predetermined and Emergent Codes

To organize the vignette responses into relevant categories, analysis began with a deductive content analysis approach, where the coding process was guided by predetermined codes drawn from the literature on instructional practices that support ELs (e.g., Baker et al., 2017). Deductive content analysis is ideal for studies that are grounded in existing theories, as it allows the researcher to apply a predefined coding structure to the data, ensuring consistency and transparency (Coffey & Atkinson, 1996). The predetermined codes and possible emergent codes are in Table 7 below along with their coding number or letter.

Table 7
Codebook: Codes and Their Descriptions

Predetermined Codes		Possible Emergent Codes	
(Code Indicator) Code Title	Code Description	(Code Indicator) Code Title	Code Description
(1) academic language support	Teachers support academic language (sentence stems; using the content / academic vocabulary; explicit instruction)	(a)perceptions of language acquisition	Teachers might write about slowing the lesson down, using cognates, leveraging what they students already know in their language, translanguaging etc.
(2) grammar support	Teachers encourage proper sentence structure, correct tense, provide support by having a model etc. (sentence frames, paragraph frames, explicit instruction etc.)	(b)teachers' own perceived challenges	Teachers indicate in their writing that they are not sure of their response. (e.g. ?, "I think", or indicated that they don't quite know how to answer.

Table 7*Codebook: Codes and Their Descriptions (cont.)*

Predetermined Codes		Possible Emergent Codes	
(Code Indicator) Code Title	Code Description	(Code Indicator) Code Title	Code Description
(3) content knowledge support	Teachers imply or explicitly write about how they are going to support students with the content (e.g. ecosystems); For example, do they activate prior knowledge.	(c)innovative practices	Practices that are unique to the responses (e.g. connecting home language to the experiences, experiential experiences to help give them prior knowledge, getting all students the same starting knowledge base, use of multimedia etc.)
(4) collaboration with other teachers	Teachers imply or explicitly talk about collaborating with other teachers (e.g. getting information about students, plan lesson and/or assessment together. etc.	*Other assessment data	Teachers mention other means of collecting data. E.g. reading levels, rubrics to measure writing, measuring content knowledge through presentations, etc.
(5) student engagement	Teachers imply or explicitly talk about how they are going to engage students.	*Peer collaboration	Teaches have student interact with each other through activities such as Turn and Talk, small group discussions, peer editing tasks etc.
(6) assessment of language proficiency	Teachers write about ELPA or other language related assessments?	*Universal Design for Learning (UDL)	Teachers incorporate practices that align with the key principles of UDL: (a) Multiple means of representation (visual, auditory); (b) Multiple means of Action and Representation (writing, speaking, visual display); (c) Multiple Means of Engagement (provides multiple ways to motivate students)
		*Error Correction	The teacher mentions terms like “feedback” and “errors.”
		*No Response	The teacher left the question blank.

Note. * = Codes that emerged during data analysis

The predetermined and emergent codes are aligned with the primary instructional goals of the ESOL endorsement courses, and the expected practices teachers would use in their classrooms to support ELs. The goal of this phase is to organize the vignette responses into relevant categories.

Axial Coding to Explore Relationships

To deepen the analysis of the vignette responses and systematically explore relationships between codes, axial coding was applied following an initial coding process. Axial coding, as described by Strauss and Corbin (1990), involves reassembling the data by identifying connections, patterns, and underlying conditions between codes. This process facilitates a deeper understanding of how instructional supports, challenges, and strategies interact within teacher responses.

The guiding questions used in this step draw from established qualitative research methodologies and frameworks, such as those proposed by Charmaz (2006), Saldaña (2021), and Creswell and Poth (2017). These questions were designed to ensure that the analysis remains rigorous, systematic, and grounded in the study's objectives. By addressing these questions, the analysis moves beyond identifying discrete codes to exploring their relationships, contextual factors, and causal implications, providing insights into how teachers' instructional practices evolve across ESOL endorsement courses. While axial coding is often associated with grounded theory (Vollstedt & Rezat, 2019), it was used here to investigate how the categories interact, despite the study's deductive approach. As defined by Strauss and Corbin (1990), axial coding is a "set of procedures whereby data are put back together in new ways" (p. 96). This step allows for the identification of patterns, relationships, and contextual factors influencing instructional practices, offering deeper insights into how ESOL courses impact teacher strategies.

The guiding questions for axial coding draw from established qualitative research methodologies including Charmaz (2006), Creswell and Poth (2017), and Saldaña (2021). The questions were designed to go beyond the identification of individual codes by examining co-occurrences, contextual factors, developmental shifts, and outcomes described in the data. By using these questions, the analysis ensures transparency, rigor, and alignment with the study’s objectives. See Table 8 for the guiding questions and their rationale.

Table 8

Guiding Questions for Axial Coding to Explore Relationships Between Instructional Practices

Guiding Question	Purpose and Supporting Research
Which codes frequently co-occurred across responses?	To identify patterns and overlaps between codes. Saldaña (2021) emphasizes that co-occurrence analysis is critical for understanding connections with qualitative data.
What conditions or contextual factors influenced the presence of supports or challenges?	To explore external factors like time constraints and resources. Charmaz (2006) explains that axial coding is important for linking codes to contextual factors.
Were any student outcomes described based on the applied practices?	To see if there were any linking of practices (e.g., integrated supports) to anticipated student outcomes (e.g., improved engagement) to improve effectiveness. Saldaña (2021) axial coding helps to uncover relationships.
How did teachers’ instructional strategies evolve after an advanced course compared to the introductory course?	To compare responses across course levels reveals developmental shifts, such as a progression from basic scaffolding to advanced, integrated strategies. Creswell and Poth (2017) argue that such comparisons are essential for identifying developmental patterns and thematic progressions.
What were the patterns of emphasis across instructional supports?	To explore how frequently and deeply teachers discuss certain supports (e.g., related to academic language) highlights their instructional priorities. Saldaña (2021) suggest that analyzing patterns across codes reveals broader trends.

Through axial coding, the analysis also explored whether the type of ESOL endorsement course is associated with varying degrees of integration. For example, axial coding may reveal whether teachers from courses with a focus on foundational instructional practices emphasize different practices compared to those from courses that are more data-driven and focused on assessment.

Rubric Scoring to Measure Change

To assess developmental changes in participants' instructional practices, a seven-dimension rubric was developed and used to score each response. Three of the seven rubric dimensions were grounded in the knowledge and skills component of the Linguistically Responsive Teaching (LRT) framework (Lucas & Villegas, 2013) which emphasizes equitable instruction for linguistically diverse students. The three dimensions include: (a) understanding of language, culture, and identity; (b) applied principles about language learning; and (c) scaffolding for EL students. The remaining four of seven rubric dimensions integrated evidence-based instructional practices from the What Works Clearinghouse (WWC) Educator's Practice Guide (Baker et al., 2014), which informed the Fall and Winter course design. The recommendations included:

1. Recommendation 1 (strong evidence): Focus on teaching a selection of academic vocabulary words intensively over the course of several days, using a variety of instructional techniques.
2. Recommendation 2 (strong evidence): Incorporate both oral and written English language instruction into content area lessons.
3. Recommendation 3 (minimal evidence): Offer consistent, structured opportunities for students to enhance their writing skills.

4. Recommendation 4 (moderate evidence): Provide targeted small-group instructional interventions for students who are experiencing difficulties in literacy and English language development.

Each dimension was rated on a 4-point ordinal scale (0 = Not Present, 1 = Beginning, 2 = Developing, 3 = Advanced). Detailed descriptions of each dimension are provided in Appendix C.

Data Analysis for Data Set Comparison

To address research question three about the quantitative and qualitative similarities and differences between in-service teachers' perceptions of language acquisition and their descriptions of instructional practices at the end of each course, a systematic comparison was conducted between the survey data and the qualitative rubric scores from vignette responses. This approach used the framework of triangulation to assess areas of convergence, divergence, and complementarity between the two data sources (Creswell & Plano Clark, 2018)

Although the survey and vignette responses were collected and analyzed independently, they were conceptually integrated by mapping vignette rubric dimensions onto the theoretical constructs measured in the survey. For example, for each survey construct, each rubric category (e.g., *Applied Principles of Language Learning*, *Scaffolding for ELs*, *Differentiated Instruction*) was aligned with one or more survey constructs (e.g., *General Perceptions*, *Student Characteristics*, *Instructional Practices*) based on thematic correspondence and construct intent. This process allowed for thematic crosswalks across data types and enabled joint interpretation of possible changes in perception and instructional practices. See Table 9 for a mapping of the rubric dimensions to the survey constructs.

Table 9*Survey Constructs with the Aligned Rubric Dimensions*

Survey Construct	Rubric Dimensions: (Source) / Dimension
1: General Perceptions About Language Learning	(WWC Rec 4) D4: Differentiated Support / Small Group (LRT) D5: Understanding of Language, Culture, Identity (LRT) D6: Applied Principles About Language Learning
2: Perceptions of Student Characteristics	(WWC Rec. 4) D4: Differentiated Support / Small Group (LRT) D5: Understanding of Language, Culture, Identity (LRT) D6: Applied Principles About Language Learning
3: Perceptions of Instructional Practices	(WWC Rec. 1) D1: Academic Vocabulary Instruction (WWC Rec. 2) D2: Integrated Oral and Written Instruction (WWC Rec. 3) D3: Writing Skill Development (LRT) D7: Scaffolding for EL Students

The mean survey construct scores per participant across two time points (Fall and Winter) were used to match them to the corresponding Fall and Winter data from vignette responses. These were interpreted as indicators of change or stability in perception. Each participant's survey construct-level scores were categorized into one of three change categories:

1. Change (Higher Mean Value)
2. No change (Mean value remains the same or no meaningful change)
3. Change (Lower Mean Value)

See Table 10 to see how the researcher would interpret the changes in the mean scores.

Table 10*Summary of Interpreting Mean Score Changes*

Change in Mean	Interpretation	Code as
±0.00 – 0.10	No meaningful change	No Change
±0.11 – 0.29	Small but possible shift	Possibly Change*
±0.30 – 0.49	Moderate change	Change
±0.50+	Large/clear change	Change

Note. Changes between 0.11 and 0.29 may be considered meaningful change if supported by change in rubric dimensions or visible evidence of instructional application. If not, these cases may be better classified as complementarity.

Rubric scores from the vignette responses were recorded independently for Fall and Winter submissions using a 4-point scale per dimension (0 = Not Present; 1 = Beginning; 2 = Developing; 3 = Advanced). These scores were used to determine whether the participant demonstrated change in instructional practice descriptions over time. Each rubric category was then linked to the relevant survey construct, allowing for aligned comparisons between perceptions and practices. Following the alignment, each case was evaluated for:

1. **Convergence:** Alignment between survey and rubric show change (higher or lower) or no change in the same direction. (e.g. survey shows change with a higher mean value from Before Fall to After Winter and all rubric dimensions show a higher score too.)
2. **Divergence:** The two data sources show conflicting patterns (e.g. survey shows change, and all rubric dimensions do not show change.)
3. **Complementarity:** The two data sources provide different but mutually supportive insights. This will be used in instances where survey show a clear direction, but the rubric dimensions might have mixed scores (e.g. Y, Y, N).

See Table 11 for an example of how these would be rated using a joint table display. Appendix D has the Triangulation Analysis Guide.

Table 11

Example of Scoring for Triangulation

Participant	Construct	T1 Score (Fall)	T3 Score (Winter)	Δ	Rubric Change (↑,→,↓)	Triangulation
X	C1	3.3	3.8	↑	↑, ↑, ↑	Convergence
X	C2	2.5	3.7	↑	→, →, →	Divergence
X	C3	3.0	3.1	↓	↑, ↓, ↑, ↑	Complementarity

This triangulation strategy supports the development of integrated interpretations known in mixed methods research as meta-inferences (Creswell & Plano Clark, 2017) where insights from both the survey results and rubric-based vignette responses are synthesized to provide a more comprehensive understanding of how teacher perceptions align with their instructional practices.

CHAPTER IV

RESULTS

This chapter presents the findings of the study, which explored the interaction between in-service teachers' perceptions of language development and their instructional practices change as they progressed through foundational and advanced ESOL endorsement courses. The results are organized around three central research questions:

1. Changes in Perception: Does participation in a progression of ESOL endorsement courses influence teachers' perceptions of language development?
2. Changes in Instructional Practices: Does participation in ESOL courses impact instructional practices, as evidenced in teachers' written responses to an instructional vignette?
3. Alignment Between Changes in Perceptions and Practice: To what extent do teachers' perceptions of language acquisition align with their self-reported instructional practices across different points in the program?

The first section presents quantitative analysis of survey data. This includes tests for normality, the Friedman test to examine changes in perceptions across time points, and Wilcoxon Signed-Rank Tests to analyze pairwise differences where significance is found in the Friedman test. The second section shifts to qualitative analysis of participants' vignette responses to instructional vignettes. Through predetermined, emergent, and axial coding, responses were examined for instructional themes in instructional practices used for ELs. A rubric was also used to assess change in specific instructional dimensions between the Fall and Winter terms. The third section aligns and integrates the quantitative and qualitative findings to examine patterns of convergence, divergence, and complementarity. This section presents descriptive comparisons

between survey responses and written reflections in a case study format to assess how participants' perceptions relate to their described instructional approaches over time.

Each section is presented independently, with findings reported as they emerged from the data. Broader implications, explanations, and synthesis of these findings are reserved for the following discussion chapter.

Survey Results: Changes in Perception

This first section addresses research question 1: "Does the progression from foundational to advanced ESOL endorsement courses influence in-service teachers' perceptions of language development?" Descriptive and inferential analysis were used to examine patterns of change in survey responses across the following time points:

1. Time point 1: Prior to a foundational course (Before Fall)
2. Time point 2: Between the foundational and advanced course (BFW)
3. Time point 3: After the advanced course (After Winter)

All 25 survey items were scored on a five-point Likert scale (e.g. 1: *strongly disagree*; 2: *disagree*; 3: *undecided*; 4: *agree*; 5: *strongly agree*) that examined three constructs: (a) Construct 1: General Perceptions; (b) Construct 2: Student Characteristics; and (c) Construct 3: Instructional Practices. Higher scores reflected stronger alignment with linguistically responsive and research-based perspectives.

Normality Testing

Prior to analysis, Shapiro-Wilk tests were conducted to assess the normality of the overall survey scores and individual item responses. Results indicated no significant deviation from normality in the overall scores at any timepoint, with all p-values exceeding the 0.5 threshold: Fall ($W = 0.85, p = .15$; BFW ($W = 0.95, p = .78$), and Winter ($W = 0.96, p = .84$). However,

individual item-level analysis revealed more frequent normality violations. Specifically, 40% of items in the Fall and Winter timepoints, and 44% items in the BFW timepoint, violated the normality assumption. These violations are common in small samples and with Likert-scale data due to their ordinal nature and limited response range (Groves et al., 2009). Item-level Shapiro-Wilk results can be seen in Table E1 in Appendix E.

Given the small sample sizes, ordinal response format, and observed item-level normality violations, non-parametric statistical tests were selected for subsequent analysis, as they are more robust under these conditions and do not assume normality (Razali & Wah, 2011).

Descriptive Statistics

Descriptive statistics were computed for the overall survey and each construct. Overall survey scores remained stable across time points (Fall = 3.43, BFW = 3.34, Winter 3.09). The largest change occurred in Construct 1, with scores declining over time (Fall = 3.35, BFW = 3.13, Winter = 2.5), suggesting increasing nuance or changes in participants general perceptions about language acquisition. See Table 12 for the descriptive statistics per construct. For item-level descriptive statistics per time point, refer Tables E2 - E4 in Appendix E.

Table 12

Descriptive Statistics: Construct Level and Overall Survey

Time Point	Construct 1 Q1-Q10			Construct 2 Q11-Q16			Construct 3 Q17-Q25			Overall Survey Q1-Q25		
	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>M</i>	<i>Mdn</i>	<i>SD</i>	<i>M</i>	<i>Mdn</i>	<i>SD</i>
Fall	3.35	3.25	.46	3.61	3.67	.68	3.39	3.33	.39	3.43	3.36	.43
BFW	3.13	3.10	.31	3.92	3.83	.43	3.20	3.33	.35	3.34	3.36	.19
Winter	2.5	2.50	.31	3.67	3.75	.27	3.35	3.33	.28	3.09	3.12	.18

Note. BFW = Between Fall and Winter; 5-point Likert scale: 1: *strongly disagree*; 2: *disagree*; 3: *undecided*; 4: *agree*; 5: *strongly agree*

These patterns provided further rationale for conducting inferential analysis to test for statistically significant changes.

Inferential Statistical Analysis

Friedman test was conducted to assess whether the observed changes at the construct-level were statistically significant. Results indicated a significant difference for Construct 1 ($\chi^2(2) = 9.33, p = .01$), with a large effect size ($W = 0.78$). No statistically significant differences were found for Constructs 2 or 3 (see Table 13). These findings confirmed that changes in participants general perception about language acquisition (Construct 1) was statistically significant.

Table 13

Friedman Tests for Three Constructs

Construct	<i>n</i>	χ^2	df	<i>p</i>	Effect Size (<i>W</i>)	<i>Magnitude</i>
Construct 1	6	9.33	2	.01*	0.78	Large
Construct 2	6	3.52	2	.17	0.29	Small
Construct 3	6	1.65	2	.44	0.14	Small

Post-hoc Wilcoxon Signed-Rank tests were conducted to further explore Construct 1 differences. Although none of the comparisons met the Bonferroni-adjusted threshold for significance ($\alpha = .017$), both time points 2 (BFW to Winter) and 3 (Fall to Winter) comparisons produced large effect sizes ($r = .90$), indicating meaningful changes in perception even in the absence of statistical significance. See Table 14 for the results of the Post-hoc Wilcoxon Signed-Rank test.

Table 14*Post-hoc Wilcoxon Tests for Construct 1 (Bonferroni-corrected)*

Time Point Comparison	<i>n</i>	<i>p</i>	<i>p.adj</i>	Effect Size (<i>r</i>)	Magnitude
Fall to BFW	6	.56	1	0.3	Small
BFW to Winter	6	.03	.09	0.9	Large
Fall to Winter	6	.03	.09	0.9	Large

To better understand the specific drivers behind the significant change observed in Construct 1, item-level analyses were conducted across all 25 survey items. A Friedman test with the Benjamini-Hochberg procedure for false discovery rate (FDR) correction was used to assess which individual items showed statistically significant change.

Results revealed that five items within Construct 1 demonstrated statistically significant differences: Q1, Q3, Q4, Q5, and Q6. These five items remained statistically significant after controlling for the FDR, increasing confidence that the observed changes were not due to chance, even with a small sample. A breakdown of these items can be seen in Table 15.

Table 15*Item Level Results Using Friedman Test with Benjamini-Hochberg Correction*

Question	Chi-Square	Raw <i>p</i>	FDR Adjusted
Q1: <i>Second languages are learned mainly through imitation.</i>	$\chi^2(2) = 10.21$	.006	.022
Q3: <i>Second languages are learned mainly through grammar rules.</i>	$\chi^2(2) = 7.89$	.019	.037
Q4: <i>When someone learns a new language (L2), they rely on translating from their first language (L1).</i>	$\chi^2(2) = 9.33$	.009	.024
Q5: <i>It is harder to understand a new language than it is to speak it.</i>	$\chi^2(2) = 10.57$	.005	.022
Q6: <i>Most of the mistakes that second language learners make are due to interference from their first language.</i>	$\chi^2(2) = 9.36$	.009	.024

Given these significant results, pairwise comparisons were conducted using the Wilcoxon Signed-Rank test for each of the five items across all pairs of timepoints. Although adjusted p-values ($\alpha = .017$) did not reach significance, many comparisons, particularly those involving Winter responses, produced large effect sizes ($r > .50$), further suggesting change in participant perceptions. See Table 16 for the results from the Post-hoc Wilcoxon Signed-Rank test.

Table 16

Pairwise Wilcoxon Test Results for Items (Bonferroni-Corrected)

Item	Fall vs. BFW				BFW vs. Winter				Fall vs. Winter			
	W	<i>p</i>	<i>p_adj</i>	<i>r</i>	W	<i>p</i>	<i>p_adj</i>	<i>r</i>	W	<i>p</i>	<i>p_adj</i>	<i>r</i>
Q1	0	.35	1	.38	21	.03	.09	.88	15	.05	.14	.81
Q3	4	.85	1	.08	0	.05	.16	.79	0	.06	.17	.78
Q4	11	1	1	.00	21	.03	.10	.87	21	.03	.09	.88
Q5	15	.05	.16	.79	0	.03	.10	.87	0	.09	.27	.69
Q6	13	.17	.50	.56	15	.05	.16	.79	21	.03	.09	.88

Summary of Quantitative Analysis

These survey results provide a nuanced picture of how and when in-service teachers' perceptions changed over the two courses. While overall survey scores showed a gradual decline from Fall ($M = 3.43$) to Winter ($M = 3.09$), the most pronounced change was observed within Construct 1 (General Perceptions About Language Learning), which decreased significantly from Fall ($M = 3.35$) to Winter ($M = 2.5$) ($\chi^2(2) = 9.33$, $p = .01$, $W = 0.78$, large effect). This decline, confirmed by significant changes in five specific items (Q1, Q3, Q4, Q5, Q6) after applying the Benjamini-Hochberg correction, suggests that participants increasingly questioned or adjusted their foundational assumptions about language learning. In contrast, Construct 2 (Student Characteristics) initially increased from Fall ($M = 3.61$) to BFW ($M = 3.92$) before

decreasing in Winter ($M = 3.67$), while Construct 3 (Instructional Practices) showed a smaller but steady increase from Fall ($M = 3.39$) to Winter ($M = 3.35$), though neither reached statistical significance ($\chi^2(2) = 3.52, p = .17$ and $\chi^2(2) = 1.65, p = .44$, respectively). These patterns suggest differential impacts of the coursework on teachers' perceptions, with the most substantial changes occurring in their broader conceptualizations of language learning.

Vignette Response Results: Changes in Instructional Practices

This section addresses the second research question that examined how in-service teachers' vignette responses reflect changes in their instructional practices for EL. The analysis included coded vignette responses collected at the end of Fall and Winter terms. Coding focused on their proposed use of academic language, instructional strategies, and language development principles to identify patterns or changes over time. A summary of results demonstrates trends in code frequency, emergent themes, and instructional focus over time.

Across both time points for all six participants, 319 total code instances were identified, 171 in Fall and 147 in Winter. Codes were derived from predetermined categories with room for emergent coding. Four new codes emerged from the data: other assessment data, peer collaboration, and Universal Design for Learning (UDL, CAST, 2024)), and no response. These new emergent codes were added to the codebook to reflect themes not initially captured in the original coding scheme.

The most frequently codes across both terms were the two predetermined codes of Academic Language Support ($F = 43$) and Content Knowledge Support ($F = 42$). A new emergent code of Innovative Practices ($F = 41$) was also frequently coded. A summary of the coding frequencies and their percentages represented in the vignette responses after each course and after both courses is provided in Table F1 in Appendix F.

Axial Coding Results and Rubric-Based Evidence on Instructional Change

Axial coding was conducted following the frequency counts of predetermined and emergent codes applied to participants' vignette responses from Fall and Winter. The analysis was guided by a set of axial coding questions as described in Table 6 of the Methods section to explore patterns of co-occurrence, contextual factors, and potential changes over time. Three overarching themes were identified: *Scaffolding Practices*, *Assessment and Reflection*, and *Interaction Structures*. These themes capture key aspects of participants' instructional thinking related to language development and offer insight into how their responses may have changed across time points.

To further explore these changes, co-occurrence analysis was used to identify meaningful pairings of instructional practices, highlighting how participants would bundle supports in context-responsive ways. In addition, rubric scores aligned with the What Works Clearinghouse recommendations for supporting ELs (Baker et al., 2014) and the Linguistically Responsive Teaching framework (Lucas & Villegas, 2013) were used to complement the qualitative coding and provide an additional lens on participants' instructional descriptions. Table 17 summarizes the distribution of code instances across these themes.

Table 17*Axial Coding Summary*

Axial Theme	Included Codes	Fall (n = 171)		Winter (n = 147)		Overall (n = 319)	
		Code Instances	% of Total	Code Instances	% of Total	Code Instances	% of Total
Scaffolding Practices	1, 2, 3, C *UDL	83	48.5%	80	54.4%	163	51.1%
Assessment & Reflection	6, A, B, *Other, *N/R	51	29.8%	37	25.2%	88	27.6%
Interaction Structures	4, 5, *Peer, *Error	36	21.1%	29	19.7%	65	20.4%

Note. *UDL = Universal Design for Learning (CAST, 2024); *Other = Other assessment data; *Peer = Peer collaboration ; *Error = Error correction; *N/R = No Response

Theme 1: Scaffolding Practices

Scaffolding Practices emerged as the most prominent theme across vignette responses, encompassing 51.1% of all coded instances (n = 319). This theme reflects the ways in which participants described supporting ELs through layered and adaptive instructional strategies that addressed both language and content demands. Codes contributing to this theme included Academic Language Support (Code 1), Grammar Support (Code 2), Content Knowledge Support (Code 3), Innovative Practices (Code C), and Universal Design for Learning (*UDL; CAST, 2024).

Rubric dimensions aligned with this theme included Dimension 1 (Academic Vocabulary Instruction), Dimension 2 (Integrated Oral & Written Language), and Dimension 3 (Writing Skill Development) from the What Works Clearinghouse framework, as well as Dimension 6 (Applied Language Learning) and Dimension 7 (Scaffolding for ELs) from the Linguistically Responsive Teaching (LRT) framework (Lucas & Villegas, 2013). These rubric scores are summarized in Appendix C and are referenced here to contextualize growth patterns in participants' responses across timepoints.

Across both Fall and Winter responses, participants frequently described scaffolding practices such as the use of word walls, sentence stems, graphic organizers, multimodal resources, and realia. However, shifts from Fall to Winter suggested developmental movement for several participants ($n = 3$), from listing discrete supports to integrating and contextualizing them within broader instructional routines. For example, Participant 6324 moved from general mention of “word walls” and “access to a dictionary” in the Fall to a more targeted explanation in Winter: “create a list of key vocabulary terms that relate to the topic and structure of the text. These terms would be reviewed and reinforced with a word wall.” Similarly, Participant 4612 expanded on the use of multimodal supports for background knowledge. In the Fall, they noted using “multimodal resources to build background knowledge on ecosystems,” whereas in the Winter they wrote, “I would take students [to a creek near school] to make observations. I would also use multiple sources books, readings, videos, realia to build background knowledge.” This not only illustrates an increase in instructional specificity but also aligns with UDL (CAST, 2024) principles such as multiple means of engagement and representation. It also demonstrates integration of community resources accessible to students.

Innovative practices were included within this broader scaffolding theme as they emphasized experiential learning and flexible supports that addressed both linguistic and content needs reflecting deeper pedagogical intentionality. For example, Participant 4612 progressed from innovative use of discrete tools like peer-editing checklists and concept maps in Fall to more experiential methods in Winter, including field trip for observation and sentence patterning activities.

Grammar support also showed increased complexity. Participant 4612 described “present tense instruction, editing checklist, chances for peer review” in the Fall, which evolved into a

more interactive Winter strategy: “work on sentence patterning, I find starting with a kernel, like ‘Ecosystems are living things interacting to their environment,’ and adding who, what, when, where, whys. I like putting these on index cards ... and have students put sentences together.” This change reflects greater integration of grammar instruction with student interaction and content learning. However, without cognitive interviewing, it is unclear if this change was influenced by the winter course, or if the participant already uses this in their current practice as evidenced by the statements of familiarity such as “I find starting ...” and “I like putting these on index cards...”

Participant 5278 demonstrated a similar transition. Their Fall response mentioned “article in students’ first language, text-to-speech options for online readings,” while in Winter they wrote: “research materials in students’ L1 and in English so they could build background in their first language and use that to build upon English language research. I would provide graphic organizers for students to collect and organize their research.” This change from listing tools of support to explaining layered application suggests a move toward pedagogical intentionality.

Overall, three participants (6324, 4612, and 5278) demonstrated meaningful shifts in how they conceptualized and articulated scaffolding practices. While rubric scores for 6324 and 4612 reflected clear increases in relevant dimensions, growth for 5278 was more evident in the qualitative richness and integration of their Winter response, despite maintaining already high rubric scores. In contrast, Participant 1367 continued to list instructional supports without elaborating on how they would be used to promote language learning. This pattern was consistent across both time points and was reflected in their static rubric scores, which remained low across scaffolding-related dimensions. Participant 2457 described relevant strategies, but their responses remained general in both Fall and Winter (e.g., Fall: “parts of a scientific report”;

Winter: “go over academic vocabulary necessary to know for writing the report”). This limited specificity aligned with unchanged or modest rubric scores across relevant dimensions.

Participant 1068, however, consistently demonstrated high-level scaffolding practices across both time points. Their responses detailed the “how,” “what,” and “with what tools” of instruction, for example: “model the use of mentor texts and sentence frames,” “use cognitive dictionaries to teach vocabulary,” and “highlight the grammar and vocabulary needed in the science unit.” Describing these practices resulted in high rubric ratings in both the WWC and LRT scaffolding dimensions.

Patterns of co-occurrence further reinforce the integrated nature of scaffolding strategies. Code 1 (Academic Language Support) frequently co-occurred with Code 3 (Content Knowledge Support), suggesting that participants viewed language development and conceptual instruction as interdependent. Additionally, Code 2 (Grammar Support) often appeared alongside Code 5 (Student Engagement), particularly in collaborative writing tasks, indicating a practice of embedding language instruction within interactive contexts.

In summary, the Scaffolding Practices theme captured the richest area of instructional reflection and change among participants. Change over time was evident in both the depth and integration of the supports described. Rubric results from the WWC and LRT frameworks supported this progression, with noticeable increases in Dimension 2 (Integrated Oral & Written Instruction), Dimension 6 (Applied Language Learning), and Dimension 7 (Scaffolding for ELs) for participants such as 6324 and 4612. Together, the coding patterns and rubric alignment suggest that coursework potentially influenced participants’ ability to describe more cohesive, linguistically responsive instruction for ELs.

Theme 2: Assessment and Reflection

Assessment and Reflection emerged as the second most prominent axial coding theme, comprising 27.6% of all coded instances across Fall and Winter vignette responses (n = 319). This theme captures how participants described the use of assessment tools, interpreted student language development, and reflected on their instructional roles and challenges. Codes contributing to this theme included: (6) Assessment of Language Proficiency, (A) Perceptions of Language Acquisition, (B) Teacher's Own Perceived Challenges, (*Other) Other Assessment Data, and (*NR) No Response. Together, these codes illustrate the ways participants navigated both formal and informal assessments of language, inadvertently expressed perceptions about how language is learned, and confronted areas of instructional uncertainty.

This theme aligns most closely with two dimensions of the Linguistically Responsive Teaching (LRT) rubric: Dimension 5 (Language, Culture, and Identity) and Dimension 6 (Applied Language Learning). Participants who considered students' home languages, translanguaging practices, or the influence of identity on language learning often demonstrated conceptual alignment with LRT-5. Those who described how they assessed or monitored students' language use through lesson objectives, performance tasks, or formative tools engaged with LRT-6. In some cases, this theme also overlapped with WWC Dimension 4 (Differentiated Support / Small Group), particularly when assessment was used to inform instructional adaptation.

Participant responses revealed variation in how assessment and reflection were approached, with some teachers shifting toward greater intentionality and linguistic awareness over time. For example, Participant 1068 moved from relying primarily on ELPA scores in Fall ("Data on specific needs of the EL students, their ELPA levels") to incorporating students' first

languages and self-assessment strategies in Winter (“I would ask students to self-assess their understanding of the language objective and then chunk the expectations so that it is student-friendly”). This evolution reflects increased alignment with both LRT-5 and LRT-6. Similarly, Participant 4612 described using a range of assessment strategies in Fall, including exit tickets, concept maps, and observation of academic discourse. In Winter, they added oral presentations that emphasized the use of academic language frames, demonstrating continuity in applied language assessment and development.

Participant 5278 showed ongoing attention to assessment design by referencing L1 and L2 reading levels in Fall and explaining how they would adapt rubrics using ELPA proficiency rubrics. Although they did not reference ELPA data explicitly in Winter, their continued use of rubrics to evaluate communication clarity and conceptual understanding suggests a consistent commitment to evaluating language use. Participant 2457, who initially left the Fall assessment item blank, described in Winter how they would create a language-focused rubric evaluating “connecting words, transition phrases, reference words, clarity of discussion and written work, and cohesiveness.” This progression reflects a developing understanding of how to assess language, even though no reference to formal language proficiency data was made.

In contrast, Participant 6324 and Participant 1367 did not reference formal or informal language proficiency assessment data at either timepoint. Their responses lacked attention to ELPA scores, diagnostic tools, or formative language assessments, indicating limited engagement with applied language learning as framed in the LRT rubric. These absences underscore the variability in participants' attention to language assessment and reflection on instructional decisions.

Participants also demonstrated evolving perceptions of language acquisition, often reflected in how they described student language use or instructional flexibility. For instance, Participant 6324 advocated for students to write in their home language and emphasized valuing revision over perfection: “I wouldn't be looking for perfection in finished reports, the focus would be on the key errors we talked about in class and evidence of revision and editing.” This response aligns with LRT-5 and suggests a shift toward asset-based thinking. Participant 5278 similarly promoted translanguaging practices by allowing students to “research and discuss in any language of their choice,” reinforcing the idea that multilingual expression supports conceptual development. Participant 1068 noted that she would “need to know which language is each student’s L1 so that I can ensure that I am using cognates,” indicating intentional support for cross-linguistic connections.

However, not all participants articulated such shifts. Participant 1367 made only general statements about building background knowledge and did not reflect on language acquisition processes. Participant 2457 showed an emerging awareness of student linguistic needs through rubric development and the inclusion of translation tools, yet also expressed uncertainty about instructional practices such as providing support for grammar when they don’t know how they would support grammar for non-ELs. These mixed responses show that while some participants began to integrate more linguistically responsive ideas into their reflections, others remained in earlier stages of conceptual understanding.

Perceived challenges and non-responses also played a role in this theme. Several participants conveyed instructional uncertainty or omitted responses to key items. For example, Participant 1367 left the Winter response for grammar support blank and provided only “graphic organizers” in Fall, suggesting limited engagement. Participant 2457 moved from general

strategies in Fall (e.g., using computers to improve grammar) to direct admissions of uncertainty in Winter: “I am not sure how I would provide grammar support. I teach primary grades, so I’m not even sure how I would provide grammar support to non-ELs.” This type of reflection may indicate deeper awareness of instructional limitations, even if confidence in practice did not increase. In contrast, Participant 1068 exhibited metacognitive development by posing reflective questions in Fall (“I would have hopefully reviewed subject and predicates...”) and demonstrating increased specificity in Winter through thoughtful rubric construction.

Although no dominant code pairings emerged for this theme through co-occurrence analysis, several participant responses bundled Codes A and 6 (language acquisition and language assessment), particularly among those who reflected on student language use in multilingual contexts. These intersections suggest that assessment thinking was often intertwined with perceptions about how students acquire and use language. As a whole, Theme 2 illustrates that participants’ understanding of assessment and reflection varied widely, with some showing meaningful changes in awareness and others continuing to express uncertainty or omit instructional considerations related to language development.

Theme 3: Interaction Structures

The third axial coding theme, Interaction Structures, accounted for 20.4% of all coded instances (n = 319), reflecting how participants described opportunities for students to interact with peers, receive feedback, and engage socially in language-rich tasks. This theme included the following codes: (4) Collaboration with Other Teachers, (5) Student Engagement, (*Peer) Peer Collaboration, and (*Error) Error Correction. The emergence of this theme highlights a shift in how participants conceptualized and structured interactive learning environments, particularly

with respect to the integration of grammar instruction, peer editing, and student collaboration within language development activities.

Interaction Structures aligns most closely with LRT Dimension 6 (Applied Language Learning), which emphasizes the use of classroom structures that allow students to actively use language in meaningful contexts, and LRT Dimension 7 (Scaffolding for ELs), especially where scaffolds are embedded within peer interaction or guided group work. Elements of this theme also intersect with WWC Dimension 2 (Integrated Oral and Written Instruction) and Dimension 3 (Writing Skill Development), particularly in activities involving collaborative writing, oral presentations, or feedback mechanisms. Notably, the co-occurrence of Grammar Support (Code 2) and Student Engagement (Code 5) was reserved for this theme, as participants frequently described interactive grammar tasks such as sentence construction games, partner-based editing, or peer feedback as a means of engaging learners in meaningful language use.

All participants provided some response related to collaboration with other teachers. Most described gathering information from colleagues about student interests, assessment data, and prior performance to help plan instruction. However, only Participant 1367 extended this collaboration to the co-construction of assessment tools, referencing rubric development with colleagues in Winter, a shift not mentioned in Fall. This example suggests a growing understanding of collaboration as extending beyond data sharing toward joint instructional design.

Participants 1068, 5278, and 6324 demonstrated the most robust attention to peer collaboration and interactive engagement. For instance, Participant 1068 moved from using Google Translate to facilitate 1:1 conversations in Fall to implementing structured peer interactions in Winter, including the use of colored markers during sentence frame completion

and the jigsaw method for collaborative content sharing. Similarly, Participant 5278 described peer practice and feedback during speech preparation in Fall and emphasized student choice and peer comfort in Winter, stating that students should be allowed to “research and discuss in any language of their choice” and collaborate with peers they feel comfortable with. This reflects a shift from controlled interaction to student-driven, linguistically responsive engagement.

Participant 6324 also showed an increase in intentional grouping strategies, stating in Winter that ELs would be placed in mixed-proficiency groups with clearly assigned roles, and that collaboration in home languages would be encouraged when possible. This change from general peer editing and sentence stems in Fall to layered interaction strategies in Winter aligns with LRT Dimensions 6 and 7, demonstrating both applied language use and scaffolding tailored to learner needs.

In contrast, Participant 1367 offered vague descriptions of partner activities across both timepoints (e.g., “Turn and talks”; “partner talk activities”), with no clear change or elaboration. Participant 2457 moved from collaborative grammar support using technology in Fall to expressions of uncertainty about how to teach grammar in Winter, though their engagement strategies became more detailed and connected to student interests (e.g., planning a unit around “The Wild Robot” and a zoo field trip). While this suggests an increase in effort to engage students, it was not paired with more developed interaction structures.

Co-occurrence analysis reinforced the integration of grammar instruction within interactive frameworks. Grammar Support (Code 2) often appeared alongside Student Engagement (Code 5), particularly in responses from 1068, 5278, and 6324. For example, 1068 described the use of sentence construction tasks with differentiated visual tools, and 5278 linked grammar preparation to peer-based speech practice and home language support. These examples

show how participants moved beyond static instructional strategies toward interactive routines that fostered both language development and student agency.

Overall, Theme 3 illustrates how some participants shifted from listing interactive strategies to implementing more intentional, structured, and linguistically responsive interaction patterns. This theme completes the coverage of the LRT framework, with Dimensions 6 and 7 represented here and Dimensions 5 and 6 covered in Theme 2. All WWC dimensions (1–4) are also addressed across the three themes, with Theme 1 covering Dimensions 1 and 4 (academic language and scaffolding), Theme 2 addressing Dimension 4 (differentiation), and Theme 3 engaging with Dimensions 2 and 3 (oral/written integration and writing development). While not all participants demonstrated consistent change, a subset of teachers progressed toward more purposeful and interactive learning structures aligned with best practices in language development.

Summary of Qualitative Results with Participant Context

Across the three axial coding themes: Scaffolding Practices, Assessment and Reflection, and Interaction Structures, participants demonstrated varying degrees of specificity and change in their instructional practices for supporting English learners. While all six educators described some use of research-based strategies, four participants (1068, 5278, 6324, and 4612) showed clear shifts in how they conceptualized and articulated their approaches between the foundational and advanced courses. These participants offered more layered, detailed responses in Winter, describing how instructional tools (e.g., sentence frames, peer collaboration, L1 resources) would be used and why. Two of these participants, 1068 and 5278, held master's degrees, and all four were in classroom-based roles. Notably, Participant 6324 was the only teacher in the sample with a bachelor's degree, suggesting that academic background alone did not account for greater

instructional refinement. Participant 4612, who reported bilingual language ability, consistently demonstrated thoughtful integration of assessment measures and feedback structures, particularly in scaffolding grammar and oral language development. Together, these four participants, three of whom held master's degrees, were also more likely to integrate multiple supports and draw on both formative assessment and peer-based strategies.

In contrast, Participants 1367 and 2457 provided responses that remained broad or uncertain across both timepoints. Participant 1367, who reported 6–10 years of experience, often listed strategies without explaining their function or connection to EL learning. Participant 2457, with 1–5 years of experience, expressed uncertainty about how to support grammar instruction and left several responses blank or undeveloped. These patterns may indicate differences in teaching confidence, content expertise, or familiarity with EL pedagogy.

All participants taught at the elementary level and identified as female. Most held master's degrees and had between 1–10 years of teaching experience. Only two participants, 4612 and 5278, reported bilingual language ability, which may have contributed to their more nuanced views on translanguaging, home language supports, and the integration of language and content learning. While all participants expressed intent to apply ESOL strategies in their classrooms, their responses revealed that the extent and clarity of implementation varied. These contextual details suggest that although the ESOL coursework may have contributed to change, participants' roles, experience levels, and language backgrounds also shaped how they engaged with and enacted course concepts in their instructional narratives.

Triangulation Results: Alignment Between Changes in Perceptions and Practice

This section presents the triangulation results for research question 3, which examines the alignment between in-service teachers' perceptions of language learning and their instructional

practices. This mixed-methods analysis integrates quantitative survey data and qualitative vignette responses to assess convergence, divergence, and complementarity in participants' learning trajectories. By comparing mean survey scores across constructs and overall performance with rubric scores derived from vignette responses, this approach captures the nuanced ways in which instructional practices reflect or deviate from stated perceptions. A training guide for this alignment assessment is included in Appendix F.

Participants With Overall Convergence

Two participants demonstrated overall convergence between their survey responses and instructional practices: Participant 1367 and Participant 5278. In these cases, either instructional behaviors aligned with research-supported perceptions captured by the survey, or patterns of instructional change helped explain neutral or mixed survey shifts.

Participant 1367, a kindergarten teacher with 6–10 years of experience, maintained a consistent overall survey score while showing no change in rubric performance. Despite divergence at the construct level, the overall pattern suggested convergence, as their instructional practices continued to align with foundational ESOL strategies they had embraced earlier in the program. Their reflections showed appreciation for scaffolded routines but also highlighted a lack of age-appropriate examples for early learners, which may have constrained more advanced practice. Although changes in perceptions of grammar and language aptitude were not fully realized in practice, their continued use of sentence frames, visuals, and word walls indicates coherence between stated instructional intent and observed classroom planning. See Table 18 for details about participant 1367.

Table 18*Joint Display of Survey and Vignette Rubric Scores for Participant 1367*

	Survey Means Changes (↑,↓, or →)			Rubric Dimensions Changes (↑,↓, or →)							Triangulation Type	
	Fall <i>M</i>	Winter <i>M</i>	Change	D1	D2	D3	D4	D5	D6	D7		
	C1	2.8	2.6	↓	N/A	N/A	N/A	→	→	→		N/A	Divergence
C2	3.5	3.33	↓	N/A	N/A	N/A	→	→	→	N/A	Divergence	
C3	3.33	3.67	↑	→	→	→	N/A	N/A	N/A	→	Divergence	
				Overall Rubric Score								
				Fall Score			Winter Score					
Overall Survey	3.16	3.16	→	9/21			9/21				→	Convergence

Note. C1 = Construct 1: General Perceptions of Language Acquisition ; C2 = Construct 2: Perceptions of Student Characteristics Related to Language Learning; C3 = Construct 3: Perceptions of Instructional Practices Related to Language Learning ; Rubric Dimensions:

- D1 = WWC Rec 1: Academic Vocabulary Instruction
- D2 = WWC Rec 2: Integrated Oral & Written Instruction
- D3 = WWC Rec 3: Writing Skill Development
- D4 = WWC Rec 4: Differentiated Support / Small Group
- D5 = LRT: Understanding of Language, Culture, Identity
- D6 = LRT: Applied Principles About Language Learning
- D7 = LRT: Scaffolding for EL Students

Participant 5278, a bilingual K–5 reading specialist with over a decade of experience, exhibited a slight decrease in both survey and rubric scores. However, their case is illustrative of how convergence can emerge when instructional planning clearly reflects research-aligned strategies, even when self-reported perceptions decline. Their planning incorporated home language supports, multilingual materials, and collaborative writing, all of which align with their ESOL training, even though some of the referenced course readings (e.g., Zwiers, WWC) were not directly named in their vignettes. Their consistent application of scaffolded strategies, like sentence frames and vocabulary banks, alongside robust family engagement suggests deep alignment between perceptions and practice. See Table 19 for details about participant 5278.

Table 19*Joint Display of Survey and Vignette Rubric Scores for Participant 5278*

	Survey Means Changes (↑,↓, or →)			Rubric Dimensions Changes (↑,↓, or →)							Triangulation Type	
	Fall <i>M</i>	Winter <i>M</i>	Change	D1	D2	D3	D4	D5	D6	D7		
	C1	3.4	2.4	↓	N/A	N/A	N/A	→	↓	→		N/A	Complementarity
C2	4	3.83	↓	N/A	N/A	N/A	→	↓	→	N/A	Complementarity	
C3	3.11	3.33	↑	→	→	→	N/A	N/A	N/A	→	Divergence	
				Overall Rubric Score								
				Fall Score			Winter Score					
Overall Survey	3.44	3.08	↓	18/21			17/21				↓	Convergence

Note. C1 = Construct 1: General Perceptions of Language Acquisition ; C2 = Construct 2: Perceptions of Student Characteristics Related to Language Learning; C3 = Construct 3: Perceptions of Instructional Practices Related to Language Learning ; Rubric Dimensions:

- D1 = WWC Rec 1: Academic Vocabulary Instruction
- D2 = WWC Rec 2: Integrated Oral & Written Instruction
- D3 = WWC Rec 3: Writing Skill Development
- D4 = WWC Rec 4: Differentiated Support / Small Group
- D5 = LRT: Understanding of Language, Culture, Identity
- D6 = LRT: Applied Principles About Language Learning
- D7 = LRT: Scaffolding for EL Students

Participants With Overall Divergence

Three participants demonstrated divergence between their survey responses and instructional planning: Participant 1068, Participant 4612, and Participant 6324. In these cases, survey data reflected either aligned with research perception shifts or stability, while the corresponding instructional practices were inconsistent with or less clearly aligned to those perceptions. This pattern may signal uncertainty in applying new knowledge, shifts in awareness without corresponding action, or the early stages of pedagogical change.

Participant 1068, a middle school humanities teacher early in their career, demonstrated modest improvement in their overall survey score and rubric score. However, deeper analysis

revealed divergence between perceived instructional change and actual practices. For instance, Construct 3 scores (instructional practices) rose slightly, yet the participant continued to emphasize sentence frames and vocabulary supports without significantly deepening or diversifying their approach. Item-level responses showed growing neutrality about error correction and collaborative interaction, despite instructional vignettes suggesting increasing confidence with peer interactions. Their overall divergence likely reflects growing awareness of complexity rather than a lack of engagement, as their reflections highlighted useful strategies learned from the What Works Clearinghouse practice guide and a desire to incorporate home language use. See Table 20 for details about participant 1068.

Table 20

Joint Display of Survey and Vignette Rubric Scores for Participant 1068

	Survey Means Changes (↑,↓, or →)			Rubric Dimensions Changes (↑,↓, or →)							Triangulation Type
	Fall <i>M</i>	Winter <i>M</i>	Change	D1	D2	D3	D4	D5	D6	D7	
C1	3.3	3.2	→	N/A	N/A	N/A	→	→	→	N/A	Convergence
C2	2.5	3.8	↑	N/A	N/A	N/A	→	→	→	N/A	Divergence
C3	3	3.1	→	→	→	→	N/A	N/A	N/A	↑	Convergence
				Overall Rubric Score							
				Fall Score		Winter Score					
Overall Survey	3	3.32	↑	14/21		14/21		→			Divergence

Note. C1 = Construct 1: General Perceptions of Language Acquisition ; C2 = Construct 2: Perceptions of Student Characteristics Related to Language Learning; C3 = Construct 3: Perceptions of Instructional Practices Related to Language Learning ; Rubric Dimensions:

- D1 = WWC Rec 1: Academic Vocabulary Instruction
- D2 = WWC Rec 2: Integrated Oral & Written Instruction
- D3 = WWC Rec 3: Writing Skill Development
- D4 = WWC Rec 4: Differentiated Support / Small Group
- D5 = LRT: Understanding of Language, Culture, Identity
- D6 = LRT: Applied Principles About Language Learning
- D7 = LRT: Scaffolding for EL Students

Participant 4612, a bilingual elementary teacher also in the early phase of their career, exhibited declining survey scores across all constructs despite clear instructional change in the Winter rubric. This included increased specificity in instructional planning, use of sentence kernel expansion, Frayer models, and multimodal scaffolds. The divergence stems from this mismatch: as practice improved, perception data showed a possible increase in cautious self-assessment. Their shift away from attributing errors to L1 interference and away, fixed aptitude models was supported by inclusive grouping and differentiated design. However, item-level responses revealed uncertainty in instructional confidence, such as increased neutrality toward immediate error correction, even as classroom data reflected flexible assessment and intentional scaffolding. This case reflects divergence in self-perception versus application, suggesting the participant is grappling with the complexity of implementing ESOL strategies in a real-world classroom context. See Table 21 for details about participant 4612.

Table 21*Joint Display of Survey and Vignette Rubric Scores for Participant 4612*

	Survey Means Changes (↑,↓, or →)			Rubric Dimensions Changes (↑,↓, or →)							Triangulation Type
	Fall <i>M</i>	Winter <i>M</i>	Change	D1	D2	D3	D4	D5	D6	D7	
C1	4.2	3.0	↓	N/A	N/A	N/A	→	→	→	N/A	Divergence
C2	4.5	3.83	↓	N/A	N/A	N/A	→	→	→	N/A	Divergence
C3	4.11	3.33	↓	→	↑	↑	N/A	N/A	N/A	↑	Complementarity
				Overall Rubric Score							
				Fall Score		Winter Score					
Overall Survey	4.24	3.32	↓	16/21		19/21		↑			Divergence

Note. C1 = Construct 1: General Perceptions of Language Acquisition ; C2 = Construct 2: Perceptions of Student Characteristics Related to Language Learning; C3 = Construct 3: Perceptions of Instructional Practices Related to Language Learning ; Rubric Dimensions:

- D1 = WWC Rec 1: Academic Vocabulary Instruction
- D2 = WWC Rec 2: Integrated Oral & Written Instruction
- D3 = WWC Rec 3: Writing Skill Development
- D4 = WWC Rec 4: Differentiated Support / Small Group
- D5 = LRT: Understanding of Language, Culture, Identity
- D6 = LRT: Applied Principles About Language Learning
- D7 = LRT: Scaffolding for EL Students

Participant 6324, a middle school language arts/social studies teacher early in their career, also demonstrated overall convergence despite some declines at the construct level. Their rubric scores improved from Fall to Winter, supported by detailed Winter instructional plans that emphasized peer editing, collaborative grouping, and attention to language proficiency levels. While one survey item (Q20) suggested a shift toward a more restrictive, form-focused perspective on instruction (“Teachers should use materials that expose students only to language structures they have already been taught”), their instructional practices indicated a different orientation. For example, this participant described using strategies like allowing students to write in their native language and providing resources that can be translated

into home languages, approaches that emphasize linguistic inclusion and scaffolded learning. This apparent disconnect at the item level was outweighed by a broader pattern of practice that aligned more closely with contemporary, student-centered teaching, characterized by responsive scaffolding and a focus on meaningful language use. See Table 22 for details about participant 6324.

Table 22

Joint Display of Survey and Vignette Rubric Scores for Participant 6324

	Survey Means Changes			Rubric Dimensions Changes							Triangulation Type	
	(↑,↓, or →)			(↑,↓, or →)								
	Fall <i>M</i>	Winter <i>M</i>	Change	D1	D2	D3	D4	D5	D6	D7		
C1	3.2	2.3	↓	N/A	N/A	N/A	↑	→	↑	N/A	Complementarity	
C2	3.83	4	↑	N/A	N/A	N/A	↑	→	↑	N/A	Complementarity	
C3	3.44	3.11	↓	→	↑	→	N/A	N/A	N/A	↑	Complementarity	
				Overall Rubric Score								
				Fall Score			Winter Score					
Overall Survey	3.44	3.0	↓	17/21			20/21				↑	Divergence

Note. C1 = Construct 1: General Perceptions of Language Acquisition ; C2 = Construct 2: Perceptions of Student Characteristics Related to Language Learning; C3 = Construct 3: Perceptions of Instructional Practices Related to Language Learning ; Rubric Dimensions:

- D1 = WWC Rec 1: Academic Vocabulary Instruction
- D2 = WWC Rec 2: Integrated Oral & Written Instruction
- D3 = WWC Rec 3: Writing Skill Development
- D4 = WWC Rec 4: Differentiated Support / Small Group
- D5 = LRT: Understanding of Language, Culture, Identity
- D6 = LRT: Applied Principles About Language Learning
- D7 = LRT: Scaffolding for EL Students

Participant With Overall Complementarity

One participant, Participant 2457, demonstrated an overall pattern of complementarity, where quantitative and qualitative data each contributed uniquely to understanding their learning

trajectory. While survey scores declined modestly and rubric scores remained stable, the participant's instructional reflections and vignette responses revealed meaningful conceptual change, particularly in planning and vocabulary awareness.

Participant 2457, a first-grade general education teacher with 1–5 years of experience, expressed increased attention to instructional language throughout the program. Although they struggled to name specific readings or implemented strategies, their Winter reflections referenced Tier 2 and Tier 3 vocabulary and a greater intentionality in word choice. These perceptions were not clearly reflected in large changes to their classroom planning but appeared in nuanced ways, for example, a growing focus on assessment of clarity and cohesion. Their Fall and Winter vignettes revealed a shift toward student-led, multimodal instruction (e.g., discussion of *The Wild Robot* and a zoo field trip), but grammar support remained tentative, aligning with expressed uncertainty in survey responses about error correction and explicit support for ELs.

Item-level analysis also showed divergence and convergence across constructs, but the overall picture pointed to complementarity. For example, while they strongly agreed in both surveys that students should be allowed to guess (Q25), which aligns with their risk-tolerant instructional planning, they also reported changes in perceptions about fixed-ability learning and language difficulty (Q14, Q10), which were not yet reflected in differentiated support. These patterns suggest that Participant 2457 was actively processing new concepts but still building capacity to translate that learning into instructional change. See Table 23 for details about participant 2457.

Table 23*Joint Display of Survey and Vignette Rubric Scores for Participant 2457*

	Survey Means Changes (↑,↓, or →)			Rubric Dimensions Changes (↑,↓, or →)							Triangulation Type	
	Fall <i>M</i>	Winter <i>M</i>	Change	D1	D2	D3	D4	D5	D6	D7		
	C1	3.2	2.1	→	N/A	N/A	N/A	→	→	→		N/A	Convergence
C2	3.33	3.67	↑	N/A	N/A	N/A	→	→	→	N/A	Divergence	
C3	3.33	3.0	↓	↑	→	↓	N/A	N/A	N/A	→	Complementarity	
				Overall Rubric Score								
				Fall Score			Winter Score					
Overall Survey	3.28	2.8	↓	13/21			13/21				→	Complementarity

Note. C1 = Construct 1: General Perceptions of Language Acquisition ; C2 = Construct 2: Perceptions of Student Characteristics Related to Language Learning; C3 = Construct 3: Perceptions of Instructional Practices Related to Language Learning ; Rubric Dimensions:

- D1 = WWC Rec 1: Academic Vocabulary Instruction
- D2 = WWC Rec 2: Integrated Oral & Written Instruction
- D3 = WWC Rec 3: Writing Skill Development
- D4 = WWC Rec 4: Differentiated Support / Small Group
- D5 = LRT: Understanding of Language, Culture, Identity
- D6 = LRT: Applied Principles About Language Learning
- D7 = LRT: Scaffolding for EL Students

Summary of Triangulation Results

A triangulated analysis of survey and vignette data revealed varied patterns of alignment between teacher perceptions and instructional practices across six participants. Two teachers (Participants 1367 and 5278) demonstrated convergence, where their instructional planning reflected the perceptions and strategies emphasized in the ESOL coursework. In these cases, even when survey scores remained stable or slightly declined, practices such as scaffolded instruction, multilingual supports, and collaborative learning signaled meaningful application of course concepts.

In contrast, three participants (1068, 4612, and 6324) showed divergence. For these teachers, shifts in perception, either positive or neutral, did not align with their instructional responses, which remained inconsistent or failed to reflect emerging understandings. In some instances, stronger instructional practices were paired with declining research aligned survey responses, suggesting a growing awareness of complexity in language teaching.

One participant (2457) illustrated complementarity. While quantitative measures showed minimal change, qualitative responses revealed a deeper engagement with instructional language and a shift toward student-centered approaches. This case highlighted how each data source contributed uniquely to understanding the participant's development.

Together, these patterns underscore the value of mixed-methods integration in capturing the complexity of teacher learning, where perceptions and practices may evolve at different rates or in different forms.

CHAPTER V

DISCUSSION

The purpose of this study was to examine how in-service teachers' perceptions and instructional practices related to language development changed over the progression from a foundational to advanced ESOL endorsement courses. Given the growing need for linguistically responsive instruction, particularly for English learners (ELs; de Jong & Harper, 2005; Lucas & Villegas, 2013; NCES, 2024), understanding how coursework influences teacher thinking and practice is essential for effective educator preparation. Using a convergent parallel mixed methods design (Creswell & Creswell, 2022), this study analyzed shifts across three timepoints, prior to a foundational course (Fall), between the foundational and advanced course (Between Fall and Winter), and after the advanced course (Winter). Data sources included a 25-item survey administered at all three timepoints and written vignette responses collected after the Fall and after the Winter courses.

Three research questions guided the study: (1) How did teachers' perceptions of language development change across time? (2) In what ways did their described instructional practices shift? (3) To what extent did the survey and vignette data converge or diverge? Quantitative results indicated modest but meaningful shifts in perception, particularly in items related to language learning processes and instructional practices. While most changes were not statistically significant after Bonferroni correction, descriptive trends suggested greater awareness of instructional complexity, especially in areas involving student engagement, cross-linguistic support, and the use of students' home languages.

Qualitative analysis of vignette responses supported these trends. By the end of the foundational course, all six participants demonstrated partial alignment with research-based

instructional practices. However, only a subset showed clear evidence of instructional change by the end of the advanced course. Axial coding and co-occurrence analysis identified three overarching themes, Scaffolding Practices, Assessment and Reflection, and Interaction Structures, which captured how teachers described their support of academic language, integration of content and language objectives, collaboration, and assessment of language development.

Triangulation of the survey and vignette data revealed partial convergence. Participants who demonstrated the greatest instructional change in their vignette responses also tended to show shifts in survey scores, particularly in Construct 3 (Instructional Practices). However, divergence was also present, with some participants showing growth in only one modality. These findings highlight the value of using multiple measures to examine how teachers internalize and enact linguistically responsive approaches over time.

The following sections interpret these findings in light of relevant literature, consider limitations of the study, and explore implications for teacher preparation programs and future research.

RQ1: Deepening Perceptions Through Experience – Shifting Teacher Perceptions About Language Acquisition

This section addresses Research Question 1, which examined whether progression through foundational to advanced ESOL coursework influenced in-service teachers' perceptions of language development. It was hypothesized that the foundational course would prompt shifts or stability at higher levels for general perceptions (Construct 1) and student characteristics (Construct 2), with further change or sustained high scores in instructional practices (Construct 3) following the advanced course. Stability at higher scores suggested strong initial alignment; persistent low scores indicated limited impact.

Statistical Significance and Its Interpretation

Only Construct 1 (General Perceptions about Language Learning) showed a statistically significant change across timepoints ($\chi^2(2) = 9.33$, $p = .01$; $W = 0.78$), though post-hoc comparisons did not remain significant after Bonferroni correction. Five items (Q1, Q3, Q4, Q5, and Q6) remained significant after FDR correction, all related to language acquisition processes. However, the direction of this change is critical to understanding its implications. The decline from Fall ($M = 3.35$) to Winter ($M = 2.50$) suggests that participants may have shifted toward more simplistic, behaviorist assumptions about language learning, rather than the complex, socially situated views emphasized in contemporary SLA theory (Ellis, 2006; García & Wei, 2014).

This pattern aligns with findings from earlier studies that used versions of the same survey instrument. For example, Davis (2003) and MacDonald et al. (2001) reported that teachers often entered language teaching programs with traditional, form-focused assumptions about language learning, including the perception that language is best learned through imitation, grammar drills, and translation. These views, while not fully aligned with more recent, communicative approaches, remain foundational in language teaching, especially for teachers who are building their pedagogical knowledge or prefer more structured, explicit instructional methods. However, these approaches can also limit teachers' understanding of language as a complex, socially embedded phenomenon (Krashen, 1976; Lightbown & Spada, 2013), potentially reinforcing deficit perspectives if not balanced with more holistic views.

Chen-Worley (2023) similarly found that many educators, despite expressing support for student-centered practices, held underlying assumptions that aligned more closely with traditional, form-focused approaches. Her study revealed that K–12 teachers with varying levels

of experience often relied on discrete language features and explicit instruction, even when they endorsed broader communicative goals. This disconnect highlights the challenge of moving teachers from surface-level support for multilingualism to deeper, more integrated understandings of language development.

Contextualizing the Shift: Participant Reflections

To better understand the context for these changes, follow-up questions were included after the Winter survey to capture participants' reflections on specific coursework experiences, distinct from the vignette-based responses discussed later. These questions asked participants to identify which readings, assignments, and strategies from the Fall and Winter courses were most influential. Several participants specifically mentioned strategies that align more closely with form-focused approaches. For example, participant 1068 highlighted the ongoing use of sentence frames and structured vocabulary instruction, emphasizing explicit, scaffolded supports rather than more open-ended, communicative methods. Participant 2457 reflected on the importance of explicit vocabulary instruction, including Tier 2 and Tier 3 words, without mentioning broader, discourse-level strategies.

These responses suggest that while participants may have incorporated new strategies, their underlying assumptions about language learning may have remained anchored in more structured, rule-based approaches, consistent with findings from MacDonald et al. (2001) and Pitychoutis (2023). This interpretation aligns with Chen-Worley's (2023) observation that teachers often struggle to fully integrate asset-based perspectives without direct, experiential learning opportunities that challenge their existing mental models.

Stability in Construct 2: Perceptions of Student Characteristics

In contrast, Construct 2 (Perceptions of Student Characteristics) remained relatively stable (Fall $M = 3.61$, Winter $M = 3.67$), although there was no significance (possibly attributed to the study's small sample size $n = 6$), suggesting that participants maintained a consistent recognition of learner diversity. This stability likely reflects pre-existing professional experiences that emphasized the importance of understanding students as individuals with unique linguistic and cultural backgrounds. For example, Participant 1367, a kindergarten teacher, noted the importance of family engagement and differentiated support for students without strong first-language literacy, reinforcing the value of asset-based perspectives. This aligns with prior research suggesting that teachers with more direct experience working with diverse student populations may be more likely to maintain asset-based perspectives over time (Carley Rizzuto, 2017).

Recovery in Construct 3: Instructional Practices

While this change was not statistically significant, the slight increase in Construct 3 scores from BFW ($M = 3.20$) to Winter ($M = 3.35$) may reflect a minor shift in participants' perceptions of their instructional practices, suggesting that some participants may have begun to prioritize these practices more consistently over time. However, without direct observational data, this interpretation remains tentative. For example, Participant 5278, a K-5 academic coach, described moving from broad family engagement strategies in the Fall to more targeted instructional planning in the Winter, including backward planning and differentiated instruction. This suggests that while initial disruption in instructional practice occurred, sustained practice and reflection within the Winter course helped participants integrate these strategies more effectively, contributing to the observed recovery.

Improving Perceptions: Recommendations From the Literature

The observed decline in Construct 1 scores raises important questions about how to support deeper conceptual change in teacher preparation programs. Research suggests that lasting perception shifts require more than just content exposure (Busch, 2010; Daniel & Pray, 2017). As Lucas and Villegas (2013) argue, developing sociolinguistic consciousness requires experiences that challenge deficit views and reveal the complexity of multilingualism in context.

For example, Heiman et al. (2021) found that community-based linguistic landscape explorations encouraged preservice teachers to critically reflect on whose language practices are valued in educational spaces. This practice involves having teachers walk through their local communities to document and reflect on the presence (or absence) of multilingual signage, spoken language, and other community artifacts. Teachers might take photos, make notes, or map linguistic features to identify patterns of language use, challenging deficit views and expanding their understanding of language diversity.

Similarly, Espinoza et al. (2021) documented that bilingual preservice teachers who participated in community-based lessons developed more asset-based orientations by drawing on students' linguistic strengths, cultural knowledge, and lived experiences. These lessons often included projects where teachers incorporated home languages, family stories, and cultural practices into classroom activities, encouraging teachers to see their students as experts in their own linguistic and cultural knowledge.

Both approaches highlight the potential for structured, context-rich experiences to promote more asset-based perspectives on language learning that could be applied in online courses. While Heiman et al. (2021) and Espinoza et al. (2021) examined these practices with preservice teachers, they could be adapted to support in-service teachers by integrating them into

modules that encourage teachers to reflect on their own contexts, engage with community assets, and build more inclusive instructional practices.

In sum, this analysis suggests that the progression from foundational to advanced ESOL coursework prompted statistically significant shifts in general perceptions about language learning, though the timing and nature of these shifts were not clearly defined by post-hoc analyses. To further support teachers in developing their understanding of language acquisition, preparation programs should prioritize structured, context-rich experiences that extend beyond theoretical instruction. Approaches like community observation, virtual linguistic landscape explorations, and identity-focused reflection can provide teachers with the experiential learning necessary to challenge deficit views and deepen their conceptual understanding of multilingualism. These strategies, even when integrated into asynchronous online formats, can serve as powerful catalysts for lasting perceptual change, emphasizing the importance of sociolinguistic awareness in effective language teaching.

RQ2: Bridging Coursework and Practice – Toward Durable Instructional Habits

This section addresses Research Question 2: *In what ways did teachers describe instructional practices shift over the course of the ESOL endorsement sequence?* The study hypothesized that after completing the advanced ESOL course, teachers would not only demonstrate more frequent use of research-based instructional strategies, but also greater refinement in how these practices were described in response to a vignette. Findings from vignette responses showed that while all participants demonstrated at least partial alignment with research-based strategies by the end of the foundational course, only a subset showed substantial refinement by the end of the advanced course.

Observations From Vignette Responses

The vignette questions used in this study were intentionally designed to be transparent yet open-ended, encouraging in-service teachers to respond with instructional practices they were already using or had recently learned through endorsement coursework. While participants generally showed increasing specificity in describing supports like academic vocabulary scaffolds and interactive language tasks (e.g., Turn and Talks), several responses remained broad, suggesting that some practices had not yet fully transitioned from newly acquired knowledge to embedded instructional habits. This was particularly striking given that, in course-based reflections collected at the end of Winter, participants identified backward lesson planning, family engagement strategies, tiered vocabulary, and the What Works Clearinghouse guide (Baker et al., 2014) as especially useful. The absence of these tools or the practices they endorse may indicate a disconnect between what teachers recognize as valuable and what they are able to articulate or enact in practice.

Case-Based Learning and Instructional Reasoning

This pattern highlights a key challenge for teacher preparation programs: moving teachers beyond passive recognition of best practices toward active, flexible application. The adult learning literature reinforces that in order for new instructional knowledge to become durable and transferable, learners must have opportunities to apply it in increasingly authentic contexts. Kolb's (1984) experiential learning theory and Knowles et al.'s (2005) principles of andragogy (e.g., adult learning) emphasize learning through doing, reflection, and contextualization. Likewise, Aceves and Orosco (2014) argue that culturally and linguistically responsive practices must be scaffolded and modeled for teachers during preparation. In the current study, participants appeared more capable of articulating their instructional decisions

when the vignette scenario aligned with familiar subject matter or past experiences. For example, in the Winter, Participant 2457 remembered a time when they integrated a novel study to build background knowledge, so they responded that they would apply that practice for this unit.

Participant 4612 also gave more instructional details in the Winter by explaining how they would support content knowledge by taking students to a creek near their school. This finding suggests that simulated application tasks, like the vignette, may not only assess knowledge but also reinforce learning by prompting teachers to connect new ideas to familiar classroom experiences.

Practical Implications for Teacher Preparation

One practical implication of these findings is the potential for using case-based activities not only as summative assessments but also as instructional tools within ESOL coursework. Instructors could first model a think-aloud using a sample case, then facilitate peer-based inquiry, prompting teachers to identify language demands, select appropriate scaffolds, and explain their reasoning. This approach fosters iterative application of course concepts while mirroring real-world collaboration. Several resources could support this approach, including other vignette materials from the Sonoma County Office of Education (2024), where this study's vignette instrument was adapted from, and examples from ESOL endorsement literature. Torres et al. (2023), for example, demonstrated that preservice teachers who engaged with EL-focused case-based tasks increased their confidence and preparedness to implement linguistically responsive strategies. Schneider and Costner (2022) similarly found that in-service teachers in an online ESOL endorsement course reported greater instructional shifts when case analysis was embedded throughout coursework. These studies underscore how practice-based simulations can enhance both professional confidence and the likelihood of transfer to real classroom settings.

Overall, the findings indicate that while some participants developed more precise and context-responsive instructional reasoning by the end of the ESOL coursework, others continued to describe practices in broader, less integrated terms. This variation suggests that while the coursework provided opportunities for developing more sophisticated instructional approaches, the extent to which these shifts occurred likely depended on participants' prior teaching experiences, language backgrounds, and familiarity with EL instructional strategies. These contextual factors, along with the structure and focus of the coursework itself, may have influenced how participants internalized and applied new concepts. To support more consistent instructional refinement, teacher preparation programs should consider integrating recursive, context-rich learning opportunities that reinforce the practical application of linguistically responsive strategies over time.

RQ 3: Triangulating Perceptions and Practices to Deepen Understanding

This section addresses Research Question 3: To what extent do survey results and vignette-based instructional responses converge, diverge, or complement each other in evaluating in-service teachers' development of linguistically responsive instructional practices? This question moves beyond identifying whether change occurred to examine how the integration of multiple data sources can offer deeper insights into teacher learning. A key contribution of this study is the use of joint displays to illustrate patterns across time points and data types, highlighting the importance of triangulation in mixed methods research.

Triangulating survey-based perceptions with written instructional responses revealed meaningful mismatches and unexpected alignments providing a more complete picture of how in-service teachers develop linguistically responsive practices over time. Without both data types, these nuances would have remained invisible. The survey captured shifts in perceptions

through three construct-level scores, while the rubric offered insight into how participants translated or failed to translate those shifts into written instructional planning. Importantly, the rubric was not a standalone instrument but a systematic method for analyzing the depth and quality of responses to vignette-based tasks aligned with program outcomes.

The triangulation results revealed a range of alignment types, convergence, divergence, and complementarity, across the six participants. Two participants demonstrated overall convergence, meaning their survey responses aligned with their instructional planning and reflections in the vignette. For example, Participant 5278 had survey scores and rubric scores decreased, but their perceptions and practices remained aligned with the research in areas like home language supports and collaborative writing. The changes to their scores were minimal. In contrast, three participants demonstrated divergence. Participant 4612, for instance, showed declining perception scores across all constructs but exhibited increased specificity and rigor in their Winter instructional plan. Finally, one participant exhibited complementarity, where perception data alone did not capture instructional nuance, but qualitative analysis of the vignette revealed shifts in conceptual understanding.

These findings echo and extend work by Henderson et al. (2018), who emphasized the value of using multiple data sources to understand teacher growth. In their evaluation of writing instruction, they found that teacher surveys alone could not fully capture instructional development, particularly when perceptions outpaced instructional implementation or vice versa. In the current study, triangulated data similarly uncovered nuanced pathways of teacher change, such as shifts in early experimentation or partial internalization of strategies depth that were not visible through survey means alone. This methodological integration adds weight to calls for mixed methods approaches in teacher education research (Creswell & Plano Clark, 2018),

especially when assessing complex constructs such as linguistically responsive instructional practice, as operationalized through both perceptions and planning in this study.

Additionally, this study complements Kim and Morita-Mullaney (2020), who used a mixed-methods design to examine how teacher preparation influenced perceptions and practices toward English learners. While their study involved a larger sample and focused more broadly on program components, their findings also demonstrated that participants' self-reports did not always align with instructional actions. These divergences, they argue, reflect the complexity of unlearning deficit-based assumptions while trying to implement new strategies under real classroom pressures. In this study, divergence did not necessarily signal resistance to change; it often reflected early experimentation with practices not yet fully internalized.

Moreover, triangulation in this study captured instructional patterns that would not have surfaced through survey or written response data alone. For instance, scaffolded strategies like vocabulary supports were commonly described across participants' vignette responses and reflected in rubric-aligned planning dimensions. However, more nuanced practices, such as community engagement, feedback on grammar, and formative assessment explicitly tied to language objectives, were less frequently articulated in either the survey responses (organized by constructs related to perceptions of language acquisition, student characteristics, and instructional practices) or the vignette-based planning tasks. This suggests that while participants often demonstrated foundational scaffolding strategies, their engagement with more advanced or linguistically targeted practices remained limited. This echoes concerns raised by Pettit (2011) about the gap between general teaching expertise and specific linguistic responsiveness. In the current study, participants demonstrated strong general scaffolding skills, but their integration of

those strategies with linguistic knowledge varied across contexts, reflecting a broader pattern of emerging instructional depth.

When examined collectively, these findings support the argument that collecting and analyzing multiple forms of data, particularly when linked through a clear analytic framework, yields a more accurate and actionable picture of teacher learning. While the current study involved a small sample, its methodology offers a useful model for teacher education programs. As recommended by Davis (2003) and MacDonald et al. (2001), perception surveys can provide a starting point for understanding conceptual shifts but must be paired with tools that capture actual practice. This could include vignette responses, classroom observations, or other performance-based tasks. In larger cohorts, streamlined versions of vignette tasks, aligned rubrics, or peer-evaluated planning artifacts may help scale this approach without losing insight.

Ultimately, the integration of perception and practice data in this study highlights the importance of examining how teachers learn, not just if they do. By surfacing mismatches between perception and application, programs can better target instruction, coaching, and reflection. This aligns with Feiman-Nemser's (2001) call to center the learning of teaching, not just the delivery of content, and with Lucas and Villegas' (2013) emphasis on developing sociolinguistic consciousness alongside instructional skill. Triangulated data serve as both mirror and measure, helping teacher educators assess growth while identifying the supports needed to move linguistically responsive practice from intention to implementation.

Limitations

While this study offers valuable insights into teacher perceptions and instructional practices within an ESOL endorsement program, several limitations should be considered when interpreting the findings. These limitations relate to the small sample size, the limited timeframe

of data collection, potential ceiling effects in survey responses, and the general nature of the survey instrument used.

First, the small sample size ($n = 6$) limits the generalizability of the findings and reduces the statistical power needed to detect significant differences across timepoints. While the mixed-methods design helped offset this limitation by providing rich qualitative data, a larger sample would enable more robust inferential analyses and allow for disaggregation by factors such as years of experience, language background, or grade level taught.

Second, the study captured teacher perceptions and practices during only two courses within a single academic year. This narrow window, while appropriate for exploring short-term shifts, does not provide insight into the long-term retention or classroom application of course concepts. Future research should consider longitudinal designs that follow teachers across the full endorsement sequence and beyond into post-program implementation.

Third, potential ceiling effects may have occurred for participants who entered the program with relatively high baseline scores on the survey instrument. This could obscure subtle conceptual shifts that were not detectable through Likert-scale responses. Incorporating qualitative reflections and rubric-based analyses helped address this limitation, but it remains a consideration for future survey-based studies with similarly small or homogenous samples. Additionally, the survey instrument used in this study was not tied directly to the course content or learning objectives. Instead, it focused on well-established constructs in second language acquisition, such as learner characteristics, instructional perceptions, and language development theories. This design was intentional, meant to measure general perceptions rather than surface-level content recall. While this decision may reduce alignment with specific course topics, it

strengthens the claim that observed changes reflect deeper conceptual reorientation rather than temporary shifts tied to language or assessments used in the course.

Additionally, the study also highlighted practical challenges related to data collection timing and workload. As coursework became more demanding, some participants were less responsive to survey and written response tasks. This aligns with broader research on the cognitive and logistical demands faced by adult learners balancing full-time teaching, family responsibilities, and graduate coursework. Embedding reflection opportunities and data collection within existing assignments may be a more sustainable approach for future program evaluation efforts.

Relatedly, a key limitation of this study involves the technical adequacy of the survey instrument adapted from Lightbown and Spada (2013). While one prior study (Davis, 2003) reported moderate internal consistency (Cronbach's $\alpha = .72$), a full psychometric validation has not been conducted. Specifically, there are no published confirmatory factor analyses, construct validity studies, or evidence supporting the external validity or generalizability of the instrument. As a result, the instrument's overall technical adequacy, meaning its reliability and validity across diverse contexts, remains unverified.

However, internal consistency estimates for the present study offer some support for construct-level internal validity. For the subset of participants with complete data ($n = 10$), the following reliability coefficients were observed: Construct 1: General Perceptions ($\alpha = 0.70$), Construct 2: Student Characteristics ($\alpha = 0.87$), Construct 3: Instructional Practices ($\alpha = 0.69$), and the Overall Survey ($\alpha = 0.89$). While these values indicate acceptable to strong internal consistency, especially given the small sample size, they do not substitute for comprehensive psychometric validation. Therefore, findings should be interpreted with caution, and any

conclusions about the generalizability of the instrument beyond this sample should remain tentative.

Despite these limitations, the study indicates that structured coursework can influence general perceptions about language learning. However, deeper, more sustained shifts toward perspectives aligned with contemporary SLA research may require more immersive, experiential learning opportunities that challenge long-held assumptions and promote critical reflection. Future research should incorporate both general and course-specific survey measures, expand data collection to include observational follow-up or interviews, and explore how different components of endorsement programs (e.g., course design, mentoring, practicum experiences) contribute to conceptual change over time.

Implications and Future Directions

While this study was limited by a small sample size, the results offer meaningful insight into how teacher perceptions, particularly around general language acquisition perceptions (Construct 1), may begin to shift during a structured endorsement sequence. Although few changes were statistically significant after Bonferroni correction, axial coding of vignette responses revealed emerging instructional reasoning that aligned with overall survey trends, indicating possible early stages of conceptual change. The convergence of quantitative and qualitative data further suggests the value of a dual-method approach for capturing both conceptual understanding and applied instructional behavior. These findings point to important areas for continued research and programmatic attention, particularly across the interconnected domains of theory, policy, and practice, each of which plays a vital role in advancing linguistically responsive instruction.

Theoretical Implications

This study contributes to a growing body of work examining how in-service teachers' perceptions shift over time and in response to targeted coursework. While the Linguistically Responsive Teaching (LRT) framework (Lucas & Villegas, 2013) and Feiman-Nemser's (2001) developmental tasks of teacher learning guided this study, findings also point to the value of incorporating adult learning theory into future models of teacher development. Participants' reflective shifts across time, evidenced in survey responses and written scenarios, suggest that motivation, experience, and context play important roles in how new knowledge is internalized and applied. This aligns with adult learning principles that emphasize autonomy, relevance, and problem-centered learning (Knowles et al., 2005). Future studies might explore how integrating andragogical concepts with frameworks like LRT (Lucas & Villegas, 2013) can deepen teachers' conceptual understanding of language acquisition and strengthen the long-term impact of instructional changes.

Moreover, the findings of this study underscore the urgent need for more rigorous development and psychometric validation of instruments designed to measure teacher perceptions of language acquisition. This includes conducting confirmatory factor analyses, establishing construct validity, and testing external validity across diverse teacher populations and educational contexts. Future research should prioritize the creation of technically adequate surveys with well-documented reliability and validity evidence. Without such instruments, results may be misinterpreted or lack generalizability, limiting their usefulness in shaping both theoretical models and evidence-based approaches to second language instruction, teacher preparation, and educational policy.

Policy Implications

At the policy level, this study underscores the need for structured, sequential coursework that balances theory and practice in preparing teachers to support English Learners. Many states require minimal, if any, ESOL training for general education teachers (Education Commission of the States, 2020). The findings from this study suggest the potential that purposeful sequences of coursework, from foundational to advanced, can help address persistent misconceptions and promote asset-based perspectives. To move beyond one-off training sessions, teacher preparation programs and certifying bodies might consider embedding linguistically responsive pedagogy into a sequence of coursework, ideally integrated across subject areas. This approach aligns with research emphasizing the need for sustained, contextualized professional learning to support lasting changes in practice (Daniel & Pray, 2017; Desimone, 2009). Moreover, the evidence from this study, despite a small sample, demonstrates how mixed-method evaluations can offer a more complete understanding of teacher development, which could inform how institutions assess the impact of coursework on teacher perceptions and practices.

Practice-Based Implications

For those involved in program design and instructional coaching, these findings suggest several actionable directions. First, while survey responses captured meaningful shifts in teachers' general perceptions of language development, in conjunction with the vignette analysis, there were areas where instructional practice remained unchanged. This indicates the importance of coupling perception-based learning with opportunities for application and feedback (Lucas & Villegas, 2013; Feiman-Nemser, 2001). Second, vignette-based assessments, as used in this study, offer a promising way to reveal how teachers interpret and apply course content. Vignettes can uncover nuanced shifts in reasoning and instructional decision-making in realistic yet low-

stakes contexts (Baker & Weisling, 2022; Sampson & Johannessen, 2020). This dual approach, measuring both conceptual understanding through surveys and instructional application through vignettes, offers a more comprehensive picture of teacher learning than either method alone (Mejeh et al., 2023). Finally, given the persistence of deficit-based perceptions in some responses, perception change may require more than reflection or case analysis. Descriptive patterns and vignette responses suggested that some participants were grappling with uncertainty, indicating early stages of conceptual shift, a phenomenon often observed in teacher learning as they begin to reconcile new information with prior perceptions (Feiman-Nemser, 2001; Mezirow, 1997). Programs might consider embedding experiential components such as community observations, funds of knowledge interviews, or engagement with students' home and cultural contexts (Moll et al., 1992). These immersive experiences, paired with guided reflection and peer dialogue, may help reframe linguistic diversity as an asset and support durable, equity-centered instructional change (Lopez, 2024; Mezirow, 1997).

Conclusion

This study centered on the lived experiences of in-service teachers navigating the demands of ESOL coursework, school responsibilities, and the deeper work of rethinking language, culture, and equity. It moved beyond scores and strategies to examine how teachers make sense of multilingualism, how they interpret, question, and reframe what it means to support English Learners. In doing so, it illuminated the gradual, often non-linear process of teacher learning, a process shaped not only by knowledge acquisition, but by iterative reflection, collaborative dialogue, and the rethinking of instructional practices necessary to support multilingual learners.

Rather than only evaluating teacher growth, this research sought to understand how and if structured coursework can invite educators to critically reexamine their perspectives and continue to view or change their views as recognizing language as a resource. However, this understanding cannot be captured through a single method or perspective. What teachers say they believe about language and learning may not always align with their actions in the classroom, the tools they reach for when pressed for support, or the responses they offer when faced with unexpected challenges, like welcoming a new student, guiding a colleague, or addressing a parent's concerns. As this study demonstrates, capturing these moments requires a more comprehensive approach, integrating multiple forms of data to reveal not only what teachers claim to know, but how that knowledge is applied in practice.

In this way, teacher development is not merely a technical endeavor but a transformative act, one that reshapes not just instructional strategies, but the very ways teachers perceive and engage with their students. When teachers begin to see language as a resource rather than a deficit, and student identities as assets rather than obstacles, they make more than instructional adjustments, they create space for justice. These are not easy shifts. They require time, community, and curriculum that prompts critical engagement. But when such conditions are met, change becomes possible.

This dissertation reaffirms the critical role of linguistically responsive teaching in promoting equity. What teachers perceive about language, learning, and their students, and how those perceptions change through purposeful training, matters. These perceptions shape the kinds of classrooms that are built, the opportunities that are extended to ELs, and the futures imagined for them. That is the work this study hoped to honor.

APPENDIX A

INVITATION EMAIL TO PROSPECTIVE TEACHERS

My name is Meagan Dorman, and I am a doctoral student at the University of Oregon. I am conducting a mixed-methods research study for my dissertation titled “Exploring the Impact of ESOL Endorsement Courses on Teachers’ Perceptions of Language Acquisition and Instructional Practices for English Learners: A Mixed-Methods Study.” I am writing to invite you to participate in this study.

Purpose of the Study

The purpose of this study is to examine how English for Speakers of Other Languages (ESOL) certification courses influence teachers' understanding of language acquisition and their experiences working with English learners.

What Participation Involves

If you agree to participate, you will be asked to:

- Complete a series of three surveys at different time points (before the fall course, **between** the fall **and winter** course, and after the winter course). Each survey will take approximately 10 minutes to complete.
- Write a written response to a vignette at different time points (after the fall course and after the winter course). Each written response will take approximately 30 min - 1 hour to complete.

Benefits of Participation

Your participation will contribute valuable insights into the progression of ESOL certification courses and help improve programs for teachers. Additionally, you will have the opportunity to reflect on and enhance your own teaching practices, potentially leading to improved outcomes for your EL students.

As a token of appreciation for your time and effort, upon completion of the study, you will receive a \$25 gift card.

Confidentiality and Voluntary Participation

Please be assured that all information collected will be kept confidential and used solely for research purposes. No real names or identifying details will be used in the reporting of information. Your participation is entirely voluntary, and you may withdraw from the study at any time without any consequences.

Contact Information

If you have any questions or need for further information, please do not hesitate to contact me at mdorman@uoregon.edu.

Thank you for considering this invitation. Your insights and experiences are valuable to the success of this study, and I look forward to the possibility of working with you!

Warm regards,

Meagan Dorman

Doctoral Candidate

University of Oregon

mdorman@uoregon.edu

Time Commitment for Dissertation Project 2024

	Before Fall Course 2024	Between Fall and Winter Course 2024/2025	After Winter Course 2025
Survey	10 minutes	10 minutes	10 minutes
Vignette Responses	30 minutes	30 minutes	30 minutes

APPENDIX B
SURVEY INSTRUMENT

Introduction to the Language Acquisition Survey

Thank you for participating in our survey on opinions about language learning. Your insights are valuable in helping us understand diverse perspectives and improve education practices to prepare teachers for supporting English learners.

Your participation in this survey is completely voluntary. You have the right to withdraw from the study at any time or skip any questions without penalty. Your responses will be kept anonymous and confidential. Any identifying information will only be seen by the lead researcher and will be deidentified once the survey is complete. All data will be securely stored and used solely for research purposes. The survey should take approximately 10 minutes to complete.

Directions:

Please read each statement carefully and select the response that best reflects your opinion. There are no right or wrong answers; we are interested in your honest thoughts and experiences. If you are unsure about a statement, choose the option that most closely represents your view.

Thank you for your time and contribution to this research!

Meagan Dorman

mdorman@uoregon.edu

5-scale Likert type: 1: strongly disagree, 2: disagree, 3: undecided, 4: agree, 5: strongly agree.

Construct 1: General Perceptions About Language Learning

1. Second languages are learned mainly through imitation.
2. Students learn what they are taught.
3. Second languages are learned mainly through grammar rules.
4. When someone learns a new language (L2), they rely on translating from their first language (L1).
5. It is harder to understand a new language than it is to speak it.
6. Most of the mistakes that second language learners make are due to interference from their first language.
7. Once learners know 1,000 words and the basic structure of a language, they can easily participate in conversations with native speakers.
8. The best way to learn new vocabulary is through reading.
9. The earlier a second language is introduced in school programs, the greater the likelihood of success in learning.
10. Some languages are harder to learn than others.

Construct 2: Perceptions of Student Characteristics Related to Language Learning

11. Language disorders can lead to English learner's (ELs) difficulty in learning English.
12. Differences in language systems can lead to challenges in learning English.
13. Cultural differences can make it harder for ELs to learn English.
14. Learning a second language is dependent on the learner's aptitude.
15. Personal motivation influences second language learning.
16. Anxiety affects second language learning.

Construct 3: Perceptions of Instructional Practices Related to Language Learning

17. When students are learning a new language, it is important for them to repeat and practice a lot.
18. When teaching a student in their L2, it is best to slow down your speech.
19. Classrooms are good places to learn about the structure of a second language but not for learning how to use the second language.
20. Teachers should use materials that expose students only to language structures they have already been taught.
21. When learners are allowed to interact freely (in pairs/groups), they copy each other's mistakes.
22. Assessments should only be given in the language of instruction (e.g. English).
23. For ELs, developing English literacy is the top priority, and instruction in other content areas can be postponed until they have achieved a sufficient level of proficiency.
24. Learners' errors should be corrected as soon as they are made in order to prevent the formation of bad habits.
25. It is okay for a student to guess if they don't know a word in the second language.

Adapted from Lightbown and Spada (2013). Additional questions are highlighted and adapted from Samway and McKenon (2007), Pettit (2011), and professionals in the field.

Table B1*Alignment of Survey Constructs to Frameworks and Examples*

Category	Purpose	Theoretical Framework	Example Survey Question
General Perceptions about Language Learning	Assess teachers' general understanding of language acquisition.	(Lucas & Villegas, 2013): Sociolinguistic consciousness and knowledge about ELs.	Q3: "Second languages are learned mainly through grammar rules."
		(Feiman-Nemser; 2001): Analyzing beliefs (Baker et al., 2014): Recommendations on vocabulary and literacy development	Q4: "When someone learns a new language, they rely on translating from their first language."
Perceptions about Student Characteristics Related to Language Learning	To explore teachers' perceptions about external and internal factors affecting students' ability to learn a second language.	(Lucas & Villegas; 2013): Valuing linguistic diversity and understanding sociolinguistic influences.	Q13: "Cultural differences can make it harder for ELs to learn English."
		(Feiman-Nemser; 2001): Understanding learners and their learning needs (Baker et al., 2014): Emphasis on contextual and environmental influences on language learning.	Q12: "Differences in language systems can lead to challenges in learning English." Q15: "Personal motivation influences second language learning."

Table B2*Master and Randomized Survey Question Numbers*

Master Survey	Survey 1 (Pre-Fall)	Survey 2 (Post-Fall and Pre-Winter)	Survey 3 (Post-Winter)
Q1	Q5	Q10	Q24
Q2	Q4	Q5	Q9
Q3	Q7	Q18	Q10
Q4	Q15	Q1	Q25
Q5	Q1	Q20	Q1
Q6	Q21	Q12	Q15
Q7	Q11	Q9	Q17
Q8	Q2	Q24	Q3
Q9	Q13	Q8	Q11
Q10	Q25	Q13	Q14
Q11	Q16	Q11	Q21
Q12	Q8	Q22	Q23
Q13	Q12	Q21	Q16
Q14	Q6	Q16	Q2
Q15	Q10	Q2	Q13
Q16	Q14	Q7	Q5
Q17	Q9	Q19	Q18
Q18	Q17	Q6	Q20
Q19	Q20	Q3	Q22
Q20	Q18	Q4	Q6
Q21	Q3	Q23	Q19
Q22	Q24	Q14	Q4
Q23	Q19	Q15	Q7
Q24	Q22	Q25	Q8
Q25	Q23	Q17	Q12

Note. Questions were randomized using a tool by Urbaniak and Plous (2024).

Table B3*Additional Questions Added to Survey Not Related to Perception of Language Acquisition*

Item	Fall Demographic Questions Added	Winter Contextual Questions Added
1	What is your age range? Select one that applies:	How often do you interact with ELs in your teaching practice?
2	What is your gender? Select what applies:	Were there any readings and/or assignments that were helpful or provided new information from your FALL course that has influenced your thinking related to instruction of ELs.
3	What is your race / ethnicity? Please select all that apply.	Have you applied any specific strategies learned from your Fall course? If so which one(s)?
4	What certifications do you currently possess? Select all that apply.	(Save as item 2, but for WINTER)
5	What is the highest degree that you have earned? (Select)	(Same as item 3, but for WINTER)
6	Do you speak another language? If yes, please write which language:	Looking back to the courses that you have taken so far, is there any content you feel was missing or could have been emphasized more to better support ELs in your teaching practices?
7	How long have you been teaching?	(Item 6 was the last question.)
8	What is your current position at your school site? Please fill in the blank.	
9	Do you currently work with any students classified as English Learners?	
10	What do you plan to do with your ESOL certification. Select all that apply.	

APPENDIX C

VIGNETTE INSTRUMENT

Introduction to Vignette 1A (Fall and Winter)

Hello, my name is Meagan Dorman and thank you so much for agreeing to complete this activity. I am conducting a study on how courses in English for Speakers of Other Languages (ESOL) endorsement program impact teachers' perceptions of language acquisition and their experiences working with English learners (EL). Before we begin, I want to emphasize that your participation is voluntary. You are free to skip any questions you do not wish to answer without any penalty. Your responses will be confidential, and your insights will help us improve language education practices for teachers.

Directions

1. **Read the Vignette Carefully:** Take a moment to read through the provided vignette. As you read, consider how you would plan a lesson to support ELs. Reflect on your perceptions of language acquisition and how you would design instruction to help ELs develop their language skills effectively.
2. **Answer the Following Prompts:** After reading the vignette, there will be some questions for you to answer related to the scenario. Please respond to these questions based on your own experiences, practices, and what you might have learned from your course.

Vignette For Fall and Winter

Designated ELD Instruction in Grade Five Science

Introduction

This vignette presents the objectives and scenario for an integrated ELA and science lesson where the focus is on conducting research and writing reports. You are the ESOL teacher who works in collaboration with two other fifth-grade teachers. During the designated English Language Development (ELD) time your goal is to extend the integrated ELA/science lesson and support students with the content and language development.

End of Unit Objective

Students will be able to independently research an ecosystem of their choice, synthesize their findings into a comprehensive informational science report, and effectively communicate their knowledge through a multimedia presentation, demonstrating an understanding of the key characteristics, interrelationships, and significance of the ecosystem.

Lesson Objective

Students will collaboratively write a report about ecosystems. They will apply both their content knowledge and their understanding of this text type's specific language features and structures.

Language Objective

Students will be able to effectively use cohesive language strategies, including connecting words, transition phrases, and reference words, to enhance the clarity and coherence of their discussions and written work.

Classroom Overview

Your fifth-grade class contains a range of students, including ELs at the Progressing level of English language proficiency (based on ELPA21 standards used in Oregon) *(Oregon Department of Education, 2013) and several students who are former ELs in the first and second

years of reclassification. The class is in the middle of an integrated ELA and science unit on ecosystems. You and your fifth-grade colleagues teach the same integrated ELA and science unit, allowing them to regroup students based on their English proficiency levels. You are the ESOL teacher, and the school uses a pull-out model. Respond to the following questions as if you are currently planning a lesson based on the lesson and language objectives for your pull-out ELD session, designed for 10 EL fifth graders at the Progressing level.

Questions for Vignette 1A

1. What student information do you need to plan the lesson?
2. What information would you ask of the other fifth-grade teachers?
3. What supports would you provide to help them collaboratively write a report about ecosystems? Please address the following areas:
 - a. Academic language support:
 - b. Content knowledge support:
 - c. Grammar support:
4. How would you ensure all students, regardless of their proficiency level, are engaged in the lesson?
5. How would you assess the assignment?
6. How would you assess students' understanding of each of the objectives?
 1. Lesson Objective:
 2. Language Objective:

Note. *This citation is in the references but was not used within the vignette.

Table C1*Rubric for Scoring Vignette Responses to Assess for Change*

Source	Rubric Dimension	0 = Not Present	1 = Beginning	2 = Developing	3 = Advanced
WWC Rec 1	Academic Vocabulary Instruction	The dimension is not present or inferred.	Vague reference or general mention of vocabulary instruction	Selects vocabulary or mentions a simple strategy (e.g., word list, word bank, flashcards)	Multi-day or scaffolded vocabulary instruction using varied methods. More details of how they support vocabulary.
WWC Rec 2	Integrated Oral & Written Instruction	The dimension is not present or inferred.	Only one mode used (oral or written)	Some oral + written integration, not fully connected	Oral and written supports meaningfully integrated to reinforce concepts
WWC Rec 3	Writing Skill Development	The dimension is not present or inferred.	Writing is mentioned but with little detail or clarity	Mentions writing strategies with limited detail (e.g. sentence frames, graphic organizers)	Structured writing tasks, scaffolding, and/or feedback process mentioned.
WWC Rec 4	Differentiated Support / Small Group	The dimension is not present or inferred.	General or vague mention of support, no differentiation described	Acknowledges learner variation or grouping but with limited specificity	Clearly explains how instruction is differentiated based on student needs. (e.g. makes mention of their proficiency levels)

Table C1*Rubric for Scoring Writing Responses to Assess for Change (Cont.)*

Source	Rubric Dimension	0 = Not Present	1 = Beginning	2 = Developing	3 = Advanced
LRT	Understanding of Language, Culture, Identity	The dimension is not present or inferred.	Mention language or culture in a Generic, vague, or deficit-based way (e.g. They don't speak English at home)	Acknowledges language or culture superficially, but lacks depth or connection to the material	Shows sociolinguistic awareness and equity-oriented thinking (e.g. values home language, links identify to learning, and/or makes a family connections.
LRT	Applied Principles About Language Learning	The dimension is not present or inferred.	Misconceptions or vague ideas (e.g. Kids just pick up language quickly.)	Some Second Language Acquisition (SLA) understanding (e.g., motivation, scaffolding, input/output.)	References and/or applies SLA theory/principles (e.g. distinguish conversational vs. academic discussions; describes peer interaction, discusses L1 to L2 transfer)
LRT	Scaffolding for EL Students	The dimension is not present or inferred.	Implied but not explicitly stated.	Mentions general supports (e.g. sentence frames, visuals), but lacks an explanation of how or why they are used.)	Clearly describes targeted scaffolding strategies (e.g. modeled text, structured sentence stems, use of L1 to support L2 learning.) Might have more details why and/or how these are going to be used.

APPENDIX D

TRIANGULATION ANALYSIS GUIDE

Interpreting Mean Score Changes

Table D1 provides guidance for interpreting differences in mean survey scores between Fall (T1) and Winter (T3) time points. These thresholds help determine whether a change in perception is meaningful and should be coded as an increase, decrease, or no change.

Table D1

Summary of Interpreting Mean Score Changes

Change in Mean	Interpretation	Code as
±0.00 – 0.10	No meaningful change	No Change
±0.11 – 0.29	Small but possible shift	Possibly Change*
±0.30 – 0.49	Moderate change	Change
±0.50+	Large/clear change	Change

Note. *Changes between 0.11 and 0.29 may be considered meaningful change if supported by change in rubric dimensions or visible evidence of instructional application. If not, these cases may be better classified as complementarity.

Definitions and Decision Criteria

- Step 1: Identify Change in Survey Perception
 - Compare Fall (T1) to Winter (T3) mean survey scores:
 - Increase → “+ Change in Perception”
 - Decrease → “– Change in Perception”
 - No change → Stable Perception
- Step 2: Identify Change in Rubric Performance
 - Use Y/N change indicators per rubric dimension:
 - If at least half or more of the dimensions are 'Y' → Count as change
 - If less than half are 'Y' → Count as no or minimal change

Convergence

Definition: Both data sources (survey + rubric) show consistent evidence of change in the same direction.

Use this when:

- Survey shows a clear increase or decrease AND
- Rubric shows consistent change/no change in the same direction

Example:

- Participant X
 - Survey Mean T1 to T3: ↑
 - Rubric: Y, Y, Y → Change
 - Triangulation = Convergence

Divergence

Definition: The two sources show conflicting patterns (e.g., one improves while the other declines or remains flat).

Use this when:

- Survey improves but rubric shows no change (or vice versa)

Example:

- Participant X
 - Survey Mean T1 to T3: ↑
 - Rubric: N, N, N → No Change
 - Triangulation = Divergence

Complementarity

Definition: Data sources provide different but mutually supportive insights, offering a richer picture without matching exactly.

Use this when:

- Survey and rubric show different patterns but together add nuance
- Often used when rubric change is partial (e.g., 1Y, 2N)

Example:

- Participant X
 - Survey Mean T1 to T3: ↑
 - Rubric: Y, N, N → Partial change
 - Triangulation = Complementarity

Overall Survey vs. Total Rubric

Apply the same logic to the overall mean survey score (T1 to T3) and the total rubric score (Fall vs. Winter):

- Both increase → Convergence
- One increases, the other does not → Divergence
- One shows partial progress → Complementarity

Final Notes for Interrater Agreement

- Use dropdowns in the joint display to select triangulation type.
- Justify all selections with evidence based on the above rules.
- If unsure, ask whether the pattern reflects conflict (Divergence) or contextual insight (Complementarity).

Example Triangulation Table

The following table provides examples of how triangulation types are identified based on survey changes and rubric change patterns.

Table D2

Example of Scoring for Triangulation

Participant	Construct	T1 Score (Fall)	T3 Score (Winter)	Δ	Rubric Change ($\uparrow, \rightarrow, \downarrow$)	Triangulation
X	C1	3.3	3.8	\uparrow	$\uparrow, \uparrow, \uparrow$	Convergence
X	C2	2.5	3.7	\uparrow	$\rightarrow, \rightarrow, \rightarrow$	Divergence
X	C3	3.0	3.1	\downarrow	$\uparrow, \downarrow, \uparrow, \uparrow$	Complementarity

APPENDIX E

SURVEY ITEM LEVEL RESULTS

Table E1

Shapiro-Wilk Test of Normality for Survey Items (Q1–Q25)

Question	Fall Data			Between Fall and Winter Data			Winter Data		
	<i>W</i>	<i>p</i>	Violation	<i>W</i>	<i>p</i>	Violation	<i>W</i>	<i>p</i>	Violation
Q1	0.87	0.21		0.50	0.00	Yes	0.64	0.00	Yes
Q2	0.82	0.09		0.50	0.00	Yes	0.82	0.09	
Q3	0.87	0.21		0.83	0.10		0.50	0.00	Yes
Q4	0.64	0.00	Yes	0.83	0.10		0.64	0.00	Yes
Q5	0.71	0.01	Yes	0.68	0.00	Yes	0.50	0.00	Yes
Q6	0.92	0.47		0.77	0.03	Yes	0.50	0.00	Yes
Q7	0.50	0.00	Yes	0.91	0.42		0.64	0.00	Yes
Q8	0.81	0.07		0.91	0.42		0.85	0.17	
Q9	0.64	0.00	Yes	0.87	0.21		0.92	0.47	
Q10	0.87	0.21		0.86	0.18		0.82	0.09	
Q11	0.83	0.10		0.50	0.00	Yes	0.83	0.10	
Q12	0.70	0.01	Yes	0.83	0.10		0.68	0.00	Yes
Q13	0.92	0.47		0.87	0.21		0.83	0.10	
Q14	0.64	0.00	Yes	0.83	0.11		0.87	0.21	
Q15	0.77	0.03	Yes	0.83	0.10		0.64	0.00	Yes
Q16	0.82	0.09		0.68	0.00	Yes	1.00	1.00	
Q17	0.87	0.21		0.68	0.00	Yes	0.83	0.10	
Q18	0.96	0.82		0.91	0.42		0.68	0.00	Yes
Q19	0.92	0.47		1.00	1.00		0.83	0.10	
Q20	0.50	0.00	Yes	0.81	0.08		0.91	0.42	
Q21	0.68	0.00	Yes	0.78	0.03	Yes	0.83	0.10	
Q22	0.83	0.10		0.64	0.00	Yes	0.64	0.00	Yes
Q23	0.83	0.10		0.64	0.00		1.00	1.00	
Q24	0.82	0.09		0.82	0.09		0.87	0.21	
Q25	0.50	0.00	Yes	0.50	0.00	Yes	0.91	0.42	

Note. The Shapiro-Wilk test was used to assess the normality of each survey item (Q1–Q25). Values of *W* closer to 1 and *p*-values greater than .05 indicate normality.; Fall = 40%; BFW = 44%; W = 40%

Table E2*Before Fall Term Descriptive Statistics (n = 6)*

Item	M	Median	SD	Min	Max
Q1	2.83	3	0.75	2	4
Q2	2.67	2.5	0.82	2	4
Q3	1.83	2	0.75	1	3
Q4	3.67	4	0.52	3	4
Q5	3.67	4	1.37	1	5
Q6	3.67	4	1.03	2	5
Q7	3.83	4	0.41	3	4
Q8	3.17	3	1.33	2	5
Q9	4.33	4	0.52	4	5
Q10	3.83	4	0.75	3	5
Q11	4.0	4	0.63	3	5
Q12	3.5	4	0.84	2	4
Q13	3.67	4	1.03	2	5
Q14	2.33	2	0.52	2	3
Q15	3.83	4	0.98	2	5
Q16	4.33	4.5	0.82	3	5
Q17	4.17	4	0.75	3	5
Q18	3.5	3.5	1.05	2	5
Q19	3.67	4	1.03	2	5
Q20	3.83	4	0.41	3	4
Q21	2.5	2.5	0.55	2	3
Q22	4.0	4	0.63	3	5
Q23	2.0	2	0.63	1	3
Q24	2.67	2.5	0.82	2	4
Q25	4.17	4	0.41	4	5

Table E3*Between Fall and Winter Descriptive Statistics (n=6)*

Item	Mean	Median	SD	Min	Max
Q1	3.17	3.0	0.41	3	4
Q2	3.17	3.0	0.41	3	4
Q3	2.0	2.0	0.63	1	3
Q4	3.5	3.0	1.22	2	5
Q5	1.5	1.5	0.55	1	2
Q6	2.83	3.0	0.98	1	4
Q7	3.67	3.5	1.21	2	5
Q8	3.83	4.0	1.17	2	5
Q9	4.17	4.0	0.75	3	5
Q10	3.5	4.0	1.38	1	5
Q11	4.17	4.0	0.41	4	5
Q12	4.0	4.0	0.63	3	5
Q13	3.83	4.0	0.75	3	5
Q14	3.0	3.5	1.26	1	4
Q15	4.0	4.0	0.63	3	5
Q16	4.5	4.5	0.55	4	5
Q17	4.5	4.5	0.55	4	5
Q18	3.67	3.5	1.21	2	5
Q19	1.0	1.0	0.0	1	1
Q20	3.0	3.0	1.1	1	4
Q21	3.17	3.5	0.98	2	4
Q22	1.33	1.0	0.52	1	2
Q23	4.67	5.0	0.52	4	5
Q24	3.33	3.5	0.82	2	4
Q25	4.17	4.0	0.41	4	5

Table E4*After Winter Descriptive Statistics Item Level (n = 6)*

Item	Mean	Median	SD	Min	Max
Q1	1.67	2.0	0.52	1	2
Q2	3.33	3.5	0.82	2	4
Q3	3.67	4.0	0.82	2	4
Q4	1.33	1.0	0.52	1	2
Q5	4.83	5.0	0.41	4	5
Q6	1.17	1.0	0.41	1	2
Q7	1.67	2.0	0.52	1	2
Q8	2.0	2.0	0.89	1	3
Q9	3.67	4.0	1.03	2	5
Q10	1.67	1.5	0.82	1	3
Q11	4.0	4.0	0.63	3	5
Q12	4.5	4.5	0.55	4	5
Q13	4.0	4.0	0.63	3	5
Q14	3.83	4.0	0.75	3	5
Q15	1.67	2.0	0.52	1	2
Q16	4.0	4.0	0.0	4	4
Q17	3.0	3.0	0.63	2	4
Q18	4.5	4.5	0.55	4	5
Q19	2.0	2.0	0.63	1	3
Q20	3.33	3.5	1.21	2	5
Q21	4.0	4.0	0.63	3	5
Q22	2.67	3.0	0.52	2	3
Q23	5.0	5.0	0.0	5	5
Q24	2.83	3.0	0.75	2	4
Q25	2.83	3.0	1.17	1	4

Table E5*Friedman Test Results for Individual Survey Items Across Time Points*

Item	Chi-Square	df	p	FDR-Adjusted p
Q1	1.08	2	0.58	0.66
Q2	1.41	2	0.49	0.65
Q3	1.60	2	0.45	0.62
Q4	3.18	2	0.20	0.47
Q5	3.50	2	0.17	0.47
Q6	8.54	2	0.01	0.31
Q7	4.00	2	0.14	0.47
Q8	2.67	2	0.26	0.47
Q9	3.00	2	0.22	0.47
Q10	2.00	2	0.37	0.54
Q11	0.00	2	1.00	1.00
Q12	1.20	2	0.55	0.66
Q13	1.08	2	0.58	0.66
Q14	4.000	2	0.135	0.471
Q15	0.74	2	0.69	0.75
Q16	2.00	2	0.37	0.54
Q17	2.00	2	0.37	0.54
Q18	2.67	2	0.26	0.47
Q19	2.95	2	0.23	0.47
Q20	2.95	2	0.23	0.47
Q21	6.42	2	0.04	0.31
Q22	0.67	2	0.72	0.75
Q23	6.00	2	0.05	0.31
Q24	7.00	2	0.03	0.31
Q25	4.67	2	0.10	0.47

APPENDIX F
VIGNETTE RESULTS

Table F1

Code Frequencies Within Vignette Responses of 6 Participants

Code Description	Code	Fall <i>n</i> = 171		Winter <i>n</i> = 147		Overall <i>n</i> = 319	
		<i>F</i>	%	<i>F</i>	%	<i>F</i>	%
Academic Language Support	1	23	13.5%	20	13.6%	43	13.5%
Grammar Support	2	11	6.4%	12	8.2%	23	7.3%
Content Knowledge Support	3	23	13.5%	19	13%	42	13.2%
Collaboration with Other Teachers	4	11	6.4%	8	5.4%	19	6%
Student Engagement	5	20	11.7%	15	10.3%	35	11%
Assessment of Language Proficiency	6	8	4.7%	7	4.8%	15	4.7%
Perceptions of Language Acquisition	A	15	8.8%	12	8.2%	27	8.5%
Teachers Own Perceived Challenges	B	3	1.8%	2	1.4%	5	1.6%
Innovative Practices	C	20	11.7%	21	14.3%	41	13%
Other Assessment Data	*Other	23	13.5%	15	10.2%	38	12%
Peer Collaboration	*Peer	4	2.3%	4	2.7%	8	2.5%
Universal Design for Learning	*UDL	6	3.5%	8	5.4%	14	4.4%
Error Correction	*Error	1	0.6%	2	1.4%	3	1%
No Response	*NR	2	1.2%	1	0.7%	3	1%

Table F2*Rubric Scores Per Dimension Based on What Works Clearinghouse Recommendations*

Participant	1: Academic Vocabulary Instruction		2: Integrated Oral & Written Instruction		3: Writing Skill Development		4: Differentiated Support / Small Group	
	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter
1068	2	2	3	3	2	2	2	2
1367	2	2	2	2	2	2	1	1
2457	2	3	2	2	2	1	2	2
4612	3	3	2	3	2	3	2	2
5278	3	3	3	3	3	3	2	1
6324	3	3	2	3	3	3	2	3

Note. Rubric dimensions align with WWC Recommendations 1–4 (Baker et al., 2014).

Table F3*Rubric Scores Per Dimension Based on Linguistically Responsive Teaching Framework*

Participant	5: Language, Culture, Identity		6: Applied Language Learning		7: Scaffolding for ELs	
	Fall	Winter	Fall	Winter	Fall	Winter
1068	1	1	2	3	3	3
1367	0	0	1	1	1	1
2457	2	2	1	1	2	2
4612	2	2	3	3	2	3
5278	2	2	2	2	3	3
6324	2	2	2	3	3	3

Note. Rubric dimensions align with Knowledge and Skills component of the LRT framework (Lucas & Villegas, 2013).

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