

Exploring Cognitive and Creative Strategies for Linguomethodical Reflection: A Qualitative Case Study of Pre-Service English Teachers

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Abstract

This qualitative case study explores how pre-service English language teachers employ reflective practice through cognitive and creative strategies during their practicum. Conducted in Kazakhstan, the research involved six final-year undergraduate ELT students who participated in classroom observations, maintained reflective journals, and took part in semi-structured interviews. Data collection was guided by a researcher-developed checklist, and thematic analysis revealed how participants used cognitive strategies such as strategic planning and self-monitoring to enhance their instructional awareness. In addition, creative strategies including metaphors, storytelling, and visual reflection tools facilitated emotional insight, flexible thinking, and the development of teaching identity. The integration of these reflective approaches also strengthened linguomethodical awareness by enabling participants to connect language pedagogy with authentic classroom experiences. Overall, the study highlights the pedagogical value of combining cognitive and creative reflective methods in teacher education programs to promote adaptive, learner-centered, and context-responsive teaching practices among novice language educators. As a qualitative case study, it provides nuanced insights into the reflective dimensions of pre-service teacher development in the context of English language education in Kazakhstan.

Keywords: *linguomethodical, reflection, case study, reflective journal, cognitive and creative strategies, pre-service teachers.*

Introduction

Reflective teaching is widely recognized as a cornerstone of effective teacher education, fostering professional identity, critical consciousness, and pedagogical adaptability in contemporary educational contexts. Through systematic analysis of classroom experiences, educators can identify challenges, implement data-informed modifications, and refine instructional strategies to achieve more student-centered learning (Botes & Philip, 2025; Dewey, 1933; Farrell, 2015). Sustained reflective practice enables teachers to move beyond conventional teaching routines and engage in deeper levels of self-awareness and intentional professional growth.

Previous research has examined various dimensions of reflective cognition and linguomethodical awareness in teacher education, underscoring the need to integrate metacognitive and linguistic elements into reflective training. Foundational conceptualizations

of reflection by Schön (1983) and Loughran (2002) framed it as a cyclical process linking experience with theory. Later studies, such as those by Farrell (2019) and Richards and Farrell (2018), extended this notion by connecting reflective competence with professional identity formation in language teaching. Similarly, Li and Zhang (2020) and Borg (2015) emphasized the cognitive aspects of reflection, focusing on how teachers analyze pedagogical decisions and adapt to classroom realities through self-regulated learning. More recent works on linguometrical reflection conceptualize it as a synthesis of linguistic knowledge and methodological awareness that allows teachers to design more effective lessons (Kostina, 2023; Makena & Feni, 2023; Yeskermessova, 2022). Research in Central Asian and post-Soviet contexts further illustrates the challenges of fostering linguometrical reflection in pre-service teacher education, emphasizing the need for explicit guidance and practical tools (Aitbayev & Yermekbayeva, 2021; Tulegenova, 2023). Collectively, these studies highlight the growing recognition that integrating cognitive and linguometrical perspectives enhances teachers' reflective capacity and supports context-sensitive professional development.

In many teacher education programs, reflective tools such as peer evaluation, video analysis, and journal writing are widely encouraged (Fakazli, 2015; Yilmaz, 2021). Yet, among pre-service English language teachers, these practices are often perceived as procedural obligations rather than meaningful instruments for professional growth. Reflections thus tend to remain descriptive rather than analytical and are rarely connected to long-term pedagogical development (Aitbayev & Yermekbayeva, 2021; Yeskermessova, 2022). This underscores the need for explicit scaffolding, structured support, and more engaging reflective strategies.

The integration of cognitive and creative approaches into reflective practice offers a promising path forward. Cognitive frameworks such as metacognitive questioning help teachers organize thoughts, analyze instructional outcomes, and promote logical reasoning (Wang & Han, 2020). Meanwhile, creative strategies such as storytelling, visual metaphors, and digital journaling encourage teachers to express emotional responses, gain alternative perspectives, and foster flexible thinking (Chien, 2019; Simpson et al., 2022; Tsang, 2021). Despite this potential synergy, empirical studies examining the combined influence of

cognitive and creative reflection remain scarce, particularly in relation to linguomethodical awareness within teacher education (Lee, 2020).

Linguomethodical reflection, which synthesizes methodological and language-specific considerations in lesson design and delivery, remains an underexplored construct in foreign language teacher education. It empowers pre-service teachers to connect theoretical frameworks with classroom realities, adapt to diverse learner needs, and cultivate reflective practices that harmonize technical proficiency with creativity. Nevertheless, most teacher training programs do not explicitly teach or assess this type of reflection, and the practical use of cognitive and creative tools within this domain remains limited (Farrell, 2019; [Placeholder Study on Linguomethodical Awareness, 2022]).

In Kazakhstan the context of this study pre-service English teachers pursue a four-year Bachelor's degree in Foreign Language Education, typically offered within pedagogical universities. The curriculum, regulated by the Ministry of Science and Higher Education, combines theoretical coursework (e.g., linguistics, pedagogy, English teaching methodology) with school-based practicum experiences during the third and fourth years of study. During practicum, trainees observe lessons, design teaching plans, conduct classroom instruction, and maintain reflective journals. However, these reflective components are frequently treated as procedural rather than developmental tasks. Many students receive limited guidance on structured reflection or on applying cognitive and creative strategies such as self-evaluation rubrics, visual journaling, or peer feedback cycles. Moreover, practicum materials tend to follow prescriptive national standards that emphasize lesson planning and assessment over critical reflection. Consequently, many trainees engage only in surface-level reflection summarizing classroom events rather than critically analyzing pedagogical decisions or identifying opportunities for improvement (Ablayeva, 2023; Yeskermessova, 2022). This limited integration of reflective and metacognitive tools restricts their capacity to develop professional judgment, adaptive thinking, and methodological awareness key competencies for effective teaching in diverse contexts.

Significance and Research Gap

This study is significant because it addresses key empirical, methodological, theoretical, and contextual gaps in the literature on reflective teacher education, particularly within the field of English Language Teaching (ELT). The research offers a more thorough grasp of the conception and use of reflective practices in teacher development by looking at these gaps. Additionally, by providing evidence-based insights that can guide future curriculum design and instructional strategies, the study adds to ongoing scholarly conversations.

Empirical gap: While numerous studies acknowledge the value of reflection in teacher development, little empirical evidence demonstrates how specific reflective strategies particularly the combination of cognitive and creative approaches enhance the depth and quality of pre-service teachers' reflection (Tsang, 2021; Wang & Han, 2020). Few investigations have explored these strategies in authentic practicum settings, where reflection must inform real-time pedagogical decision-making.

Methodological gap: Most research on reflective teaching in ELT relies on self-report surveys or isolated journal analyses, providing only partial insight into the processes of linguomethodical reflection. There is a need for qualitative, process-oriented designs such as case studies employing triangulated data sources to capture how reflection develops dynamically and contextually. This study addresses this limitation through a qualitative case study that integrates journals, interviews, and classroom observations to examine both cognitive and creative dimensions of reflection.

Theoretical gap: The concept of linguomethodical reflection remains theoretically fragmented, with few frameworks linking linguistic, methodological, and reflective elements in ELT. This study contributes an integrative model connecting cognitive and metacognitive strategies with language-teaching methodologies, offering a cohesive framework for analyzing reflective growth.

Contextual gap: Although reflection is formally recognized as a professional standard in Kazakhstan's teacher education policy, its implementation remains inconsistent and largely descriptive. Reflective assignments are often completed to satisfy program requirements,

with minimal guidance or explicit connection to pedagogical methods (Ablayeva, 2023; Yeskermessova, 2022). This study responds to this gap by empirically exploring how guided reflective tools can operationalize linguomethodical reflection and strengthen pedagogical awareness among Kazakhstani pre-service English teachers.

By addressing these gaps within a coherent theoretical and contextual framework, this research offers timely insights for teacher educators, curriculum developers, and policymakers seeking to promote reflective competence and adaptive professionalism in pre-service English teacher education. These insights contribute to a more nuanced understanding how reflective practice can be systematically integrated into teacher preparation programs. Ultimately, the study highlights the importance of aligning pedagogical strategies with broader educational priorities to support future English language teachers better.

This study, therefore, examines how pre-service English language teachers engage in reflective practice during their professional preparation in Kazakhstan. It aims to identify the cognitive and creative strategies they employ, how they experience these strategies in relation to linguomethodical reflection, and how such reflective engagement influences their instructional awareness and pedagogical decision-making.

Research Questions:

1. What reflective strategies do pre-service English language teachers employ during their reflective practice?
2. How do they experience and describe the use of cognitive and creative strategies in developing linguomethodical reflection?
3. Why and in what ways do these reflective strategies influence their instructional awareness and pedagogical decision-making?

Literature review

Pre-service English Language Teacher Education: Definition, Scope, and Practices

Pre-service teacher education refers to the structured academic and practical preparation undertaken by individuals aspiring to become qualified teachers before entering the

profession. It is designed to equip student teachers with theoretical knowledge, pedagogical skills, and reflective competencies that enable them to make informed instructional decisions in real classroom contexts (Dwomoh et al., 2023; Richards, 2018). In English Language Teaching (ELT), pre-service programs typically integrate courses in linguistics, methodology, classroom management, and practicum experiences to develop both linguistic proficiency and pedagogical expertise (Kuzembayeva et al., 2024; Yermekbayeva et al., 2024).

The scope of pre-service teacher education extends beyond content mastery to encompass professional identity formation and reflective development. It allows teacher candidates to connect theory with practice through teaching practicums, microteaching sessions, peer observations, and reflective journaling (Langeveldt et al., 2023). These experiences help pre-service teachers transition from learners of language to teachers of language, fostering an understanding of classroom dynamics, learner diversity, and communicative competence (Farrell, 2019; Nguyen, 2020; Yeleussiz & Qanay, 2025).

In ELT, pre-service programs are usually implemented in higher education institutions over multiple semesters and culminate in a supervised teaching practicum. During this period, student teachers observe experienced educators, design and deliver lessons, and receive feedback from mentors. The practicum serves as a key site for reflection, where trainees analyze what worked, what did not, and why certain outcomes occurred. This process cultivates pedagogical reasoning and bridges the gap between theoretical instruction and classroom realities (Wallace, 1991; Freeman & Johnson, 1998).

Common strategies used in pre-service ELT programs include lesson study, peer collaboration, feedback conferencing, and reflective journaling. Lecturers often encourage self-assessment tools such as teaching portfolios, SWOT analyses, and video reflections to promote self-regulated learning and critical awareness. Increasingly, digital platforms such as e-portfolios, video-based reflection applications, and online discussion forums are being incorporated to foster deeper engagement and collaboration (Tsang, 2021; Simpson et al., 2022).

In Kazakhstan, pre-service English teacher training follows a similar framework that integrates academic coursework, language-focused instruction, and practicum experiences

during the third and fourth years of study. Despite institutional emphasis on reflection, many activities remain largely descriptive and insufficiently connected to theoretical or pedagogical models (Ablayeva, 2023; Yeskermessova, 2022). This lack of structured guidance often constrains trainees' ability to develop analytical and adaptive teaching skills, emphasizing the need for systematic integration of cognitive, metacognitive, and linguomethodical strategies within teacher education curricula.

Cognitive and metacognitive foundations of reflective teaching

A wide body of research in educational psychology demonstrates that cognitive and metacognitive processes form the conceptual foundation of reflective teaching. Early by Fisher (1995), Comfort (1997), and Frederiksen (1984) highlighted how teachers use cognitive operations such as analysis, categorization, and problem-solving to interpret instructional events and refine pedagogical decisions. Cognitive and metacognitive processes form the conceptual foundation of reflective teaching. Cognitive strategies facilitate systematic analysis of pedagogical practices, enabling teachers to interpret classroom events and instructional decisions using structured tools such as reflective rubrics (Farrell, 2023; Yilmaz, 2021). These strategies help pre-service teachers identify strengths and weaknesses, establish pedagogical goals, and make informed adjustments to their instruction.

However, cognitive strategies alone do not ensure deep professional growth. To move beyond procedural reflection, the integration of metacognitive processes awareness, monitoring, and regulation of thought is essential. Metacognition encourages teachers to examine not only what they do, but also why they do it, aligning beliefs with actions (Flavell, 1979; Battistone et al., 2023). This higher-order thinking is often supported by tools such as video analysis, peer evaluation, and structured reflective journaling.

Farrell's (2015) reflective framework comprising descriptive, conceptual, and critical levels closely aligns with the development of metacognitive engagement. As teachers progress from recounting experiences to interpreting and critically evaluating them, they become more deeply connected to their professional identities. Moreover, creative approaches such as storytelling and metaphor can enhance metacognitive engagement by promoting emotional awareness and cognitive flexibility (Simpson et al., 2022).

Pre-service teachers often struggle to apply metacognitive strategies effectively when training programs lack explicit instruction or mentoring. Structural limitations, such as rigid curricula and insufficient practicum guidance, further constrain reflective development (Chan & Lee, 2021; Glasser, 2022; Tachie & Kariyana, 2022). Thus, integrating both cognitive structures and metacognitive insight into teacher education curricula is essential for preparing reflective practitioners capable of making informed, adaptive decisions across contexts.

While cognitive and metacognitive strategies provide the foundational skills for reflective practice, effective teaching in language education also requires methodological awareness. Pre-service teachers must not only examine how they think and make instructional decisions, but also critically consider the pedagogical approaches they employ in the classroom. This integration of reflective thinking with methodological knowledge forms the basis of linguomethodical reflection, which allow teachers to align instructional strategies with learners' linguistic needs and classroom realities. The following section, therefore, explores the theoretical evolution of linguomethods and the emergence of linguomethodical reflection as a key component of teacher development in English language teaching.

Linguomethods and linguomethodical reflection: theoretical evolution

Linguomethods refer to pedagogical approaches and strategies for language instruction, encompassing paradigms such as Grammar Translation, Communicative Language Teaching (CLT), and Task-Based Language Teaching (TBLT). These methodologies form the pedagogical foundation upon which the theory and practice of language education are constructed (Richards & Rodgers, 2016). Teachers must critically understand and evaluate these methodologies to meet learners' diverse linguistic needs.

Linguomethodical reflection extends this understanding by integrating knowledge of methods with reflective practice. It represents a dual approach that considers both what is taught (language content) and how it is taught (methodology). This dual perspective empowers teachers to align instructional choices with learners' goals and classroom realities (Yilmaz, 2021).

Within teacher education, linguomethodical reflection enables novice teachers to evaluate not only their pedagogical methods but also the linguistic aims of their instruction. Reflecting through journals, lesson analyses, and collaborative discussions fosters awareness of how methodology influences language learning outcomes (Sudirman et al., 2021; MacAskill et al., 2023).

Despite its significance, linguomethodical reflection remains theoretically underdeveloped, with varying interpretations across the literature. Some scholars emphasize its role in connecting theoretical frameworks to practical teaching, while others highlight its contribution to professional identity formation and critical awareness (Ablayeva, 2023; Catalana, 2020; Daurenbek et al., 2025). This theoretical gap underscores the need for clearer models that explicitly integrate linguomethodical reflection into pre-service teacher training.

Digital innovations now provide new opportunities for fostering linguomethodical reflection. Multimedia journals, narrative-based applications, and visual frameworks such as mind maps enable teachers to engage with language pedagogy through multimodal reflection, deepening their interaction with both linguistic form and instructional function (Esenin, 2024).

Although kinguometrical reflection highlights the connection between methodological knowledge and reflective thinking, its full potential is realized when integrated with broader reflective practices. That is, teachers' understanding of how specific instructional methods affect learning outcomes should be accompanied by deliberate reflection on classroom experiences, pedagogical choices and professional development. By linking methodological insights with general cycles of reflection, pre-service teachers can enhance their ability to critically evaluate their teaching, adjust strategies effectively, and engage in ongoing professional growth. This approach naturally introduces the subsequent discussion on reflective practice in pre-service ELT teacher education.

Reflective practice in pre-service ELT teacher education

Reflective practice is a cornerstone of effective teacher education, particularly within ELT. It encourages educators to critically examine their classroom actions, challenge underlying assumptions, and continuously adapt teaching strategies to enhance student learning outcomes. Its philosophical foundations trace back to John Dewey's (1933) notion of experiential learning, which frames reflection as deliberate thought linking experience to understanding. Donald Schön (1983) later refined this concept through "reflection-in-action" and "reflection-on-action," highlighting reflection as an ongoing professional process. Rodgers (2002) further expanded Dewey's model into four interrelated phases: experience, description, analysis, and intelligent action providing a structured framework for reflective practice in teacher education.

In ELT programs, reflective practice typically includes journal writing, peer assessment, teaching portfolios, and classroom observation (Fakazli, 2015; Simpson et al., 2022). These activities are designed to help pre-service teachers connect theory with practice. However, many reflective accounts remain descriptive rather than analytical, limiting their potential for transformative professional development.

This challenge is especially evident in Kazakhstan. Although reflection is emphasized in national teacher education standards, its implementation in universities often lacks coherence and depth. Many pre-service English teachers complete reflective assignments without structured guidance or theoretical framing to support cognitive and metacognitive engagement (Ablayeva, 2023). As a result, reflection is frequently performed as a routine task rather than a process of transformative learning.

Integrating linguomethodical reflection into pre-service ELT programs can address this issue. When student teachers use structured prompts, framework-based analyses, or visual-metaphoric tools, they connect teaching methodologies with reflective understanding. These practices help them progress from surface-level to conceptual reflection, fostering critical awareness, adaptability, and professional confidence competencies essential for success in diverse educational settings (MacAskill et al., 2023; Farrell, 2015).

The role of reflective linguomethods for pre-service English teachers

Reflective linguomethods serve as a critical bridge between theoretical knowledge and independent teaching practice. As novice English teachers transition from practicum to professional contexts, they encounter challenges that demand flexibility, informed decision-making, and a well-defined instructional identity. Linguomethodical reflection equips them with analytical tools to examine their teaching practices through both linguistic and methodological perspectives.

This type of reflection encourages teachers to assess how instructional choices influence language learning outcomes while fostering creativity through storytelling, visual representation, and collaborative dialogue (Ahsanu, 2019; Simpson et al., 2022). Such methods promote personalization, emotional engagement, and adaptability to learners' needs.

Engaging in reflective linguomethods also enhances teacher resilience. By reframing challenges as opportunities for growth, novice teachers develop confidence in managing classrooms, adapting lesson plans, and aligning instruction with learner progress. Thus, the integration of reflective linguomethods within teacher training builds a sustainable foundation for professional growth, preparing teachers for the dynamic realities of language education (Krulatz, 2023; Woll & Wei, 2019).

Although existing studies demonstrate increasing interest in reflective linguomethods, further empirical research is needed to explore how diverse reflective tools especially those combining cognitive and creative strategies shape the long-term development of novice ELT teachers. The present study contributes to filling this gap by examining the combined use of cognitive and creative strategies in promoting linguomethodical reflection among Kazakhstani pre-service English teachers.

Conceptual Framework: interaction of variables and theoretical constructs

This research integrates six interrelated components cognitive strategies, metacognitive strategies, linguomethods, reflective linguomethods, pre-service teacher training, and the role of reflection in novice English teacher development into a unified conceptual framework. The

model posits that cognitive strategies (e.g., analysis, categorization, evaluation) help pre-service teachers understand their instructional actions, while metacognitive strategies (e.g., self-monitoring, planning, evaluation) facilitate deeper awareness of the reasoning underlying those actions. These cognitive principles are operationalized through linguomethods such as Communicative Language Teaching (CLT) and Task-Based Language Teaching (TBLT) which provide methodological foundations for instruction. Through linguomethodical reflection, teachers critically adapt these approaches to align with real classroom contexts, moving beyond rigid adherence to prescriptive models. Pre-service ELT programs provide the environment in which these reflective competencies are cultivated. By embedding cognitive and metacognitive tools into coursework and practicum experiences, teacher education programs can foster reflection that is both analytical and practical. As novice teachers enter the profession, reflective linguomethods serve as essential instruments for addressing real-world challenges with confidence and adaptability.

This conceptual framework underpins the present study, guiding the investigation into how cognitive and creative strategies influence linguomethodical reflection and pedagogical awareness among pre-service English teachers in Kazakhstan.

Method

Research Design

This study adopts a qualitative case study design (Stake, 1995) grounded in a constructivist paradigm, aiming to explore how pre-service English language teachers engage in reflective practice through cognitive and creative strategies. A case study approach is particularly appropriate for this research, as it allows for an in-depth investigation of a bounded system, in this case, a group of pre-service English teachers within their practicum context (Yin, 2018). Rather than seeking experimental control, this design emphasizes exploration and interpretation consistent with the principles of qualitative inquiry.

Although the study is not strictly phenomenological, it incorporates phenomenological elements to deepen the analysis. Drawing on Van Manen's (1990) notion of interpretive phenomenology, the research examines participants' lived experiences and meaning-making

processes regarding their teaching practices. This interpretive perspective supports a richer understanding of how reflection influences pedagogical identity and decision-making.

The study thus employs an instrumental case study approach, integrating multiple data sources, semi-structured interviews, reflective journals, classroom observations, and thematic analysis to capture the multifaceted nature of reflective engagement (Merriam & Tisdell, 2016). This combination of interpretive and instrumental methods ensures conceptual clarity and alignment with established qualitative research standards.

Participants

The study involved six pre-service English language teachers enrolled in the final year of a Bachelor's program in English Language Teaching (ELT) at a national university in Kazakhstan. All participants were completing their teaching practicum in urban secondary schools during the study period.

A purposive sampling strategy was employed a non-probability technique used to identify individuals with specific experiences or characteristics relevant to the study's focus (Merriam & Tisdell, 2016). This sampling method was appropriate because the purpose was not to generalize findings, but to obtain rich, contextualized insights into how reflective practices particularly those incorporating cognitive and creative strategies are experienced in authentic educational settings.

Eligibility criteria included:

- Enrollment in a recognized ELT teacher preparation program;
- Active participation in a school-based practicum;
- Prior exposure to reflective tools or coursework, and willingness to engage consistently in self-reflection and pedagogical experimentation.

Demographic information was collected to contextualize the findings, including participants' age, practicum location, and prior experience with reflective methods. Most participants were between 20 and 21 years old, and several were concurrently attending professional

development courses on reflective teaching and educational psychology (Imran et al., 2024). Their diverse placements and prior exposure to reflective practices made them well-suited for examining linguomethodical reflection in practice.

Research Instruments

This study employed four qualitative research instruments: a reflective depth checklist, classroom observations, reflective journals, and semi-structured interviews. Each instrument was designed and adapted to explore different dimensions of linguomethodical reflection among pre-service English language teachers.

The Reflective Depth Checklist, adapted from Bain et al. (2002), functioned as an analytical tool to evaluate the depth of participants' reflections across descriptive, dialogic, and critical levels. This checklist provides structured criteria for assessing both written and verbal reflections.

The potential circularity arises because the Reflective Depth Checklist serves a dual role: it is used both as an analytical framework to assess reflection and as a guide for journal prompts. When participants are provided with criteria or exemplars that outline what constitutes descriptive, dialogic or critical reflection, their responses may be influenced by these prompts. Consequently, the reflection produced could reflect the structure or expectations suggested by the checklist rather than the participants' natural, unaided reflective tendencies. This methodological overlap introduces the risk that the depth of reflection observed in the data partly results from the instrument itself, rather than fully representing the participants' spontaneous reflective capacity.

Classroom Observation Protocols were designed to document instructional behaviors, teaching strategies, and spontaneous reflective actions observed during lessons. Observations were recorded through detailed field notes and analytic memos to ensure consistency and reliability.

Reflective Journals served as the primary source of self-reported data. Participants were instructed to complete journal entries after each teaching session using prompts that encouraged reflection on cognitive, metacognitive, and linguomethodical aspects of teaching.

These journals allowed the researchers to gather rich, detailed insights into participants' thinking processes, decision-making and evolving understanding of their instructional practices. By analyzing these entries, the study could examine how pre-service teachers engaged with reflective strategies over time and across different classroom contexts.

Finally, Semi-Structured Interviews were conducted at the conclusion of the practicum to elicit participants' perspectives on their reflective experiences and the rationale behind their pedagogical decisions. The interview guide was piloted with two non-participant pre-service teachers to ensure clarity, coherence, and relevance of the questions.

All instruments underwent expert validation through review by three experienced ELT educators, who evaluated the tools for content validity, alignment with research objectives, and linguistic clarity. Their feedback informed minor revisions to checklist indicators and journal prompts, enhancing the instruments' reliability and appropriateness before implementation.

Data Collection Procedures

Following instrument validation, data collection took place over one academic semester during the participants' teaching practicum. A sequential and triangulated approach was adopted to capture reflective development over time and across data sources.

First, participants were briefed on the study's objectives and trained in the use of reflective journals. During the practicum, classroom observations were conducted biweekly to document instructional practices and observable reflection-in-action. Field notes and analytic memos were compiled and coded according to pre-established observation categories.

Concurrently, participants completed reflective journal entries after each observed lesson, guided by prompts addressing cognitive, metacognitive, and linguomethodical domains. The Reflective Depth Checklist was applied to these journal entries and subsequently compared with observation data to identify evolving patterns and shifts in reflective depth.

At the end of the practicum, individual semi-structured interviews were held with each participant to capture their perceptions, challenges, and self-assessments of reflective growth.

All interviews were audio-recorded, transcribed verbatim, and cross-checked for accuracy before analysis.

This systematic and triangulated data collection process ensured comprehensive coverage of both observable teaching behaviors and internal reflective processes, thereby enhancing the trustworthiness, credibility, and interpretive depth of the findings.

Checklist

A researcher-developed checklist was employed to guide both classroom observations and the design of reflective journal prompts. The checklist was informed by the study's conceptual framework and included indicators corresponding to the following dimensions:

- Cognitive strategies (e.g., strategic planning, self-monitoring, evaluation);
- Creative strategies (e.g., use of metaphors, visual reflection tools, storytelling);
- Elements of linguomethodical reflection (e.g., awareness of language teaching methods, alignment of instructional choices with learner needs).

This checklist ensured consistency across observations and journal analyses by providing a structured framework for identifying how reflective practices manifested in both instructional behaviors and written reflections. It served as a scaffold for tracing the integration of cognitive, creative, and linguomethodical components in participants' reflective engagement.

Classroom Observation

Non-participant classroom observations were conducted throughout the participants' practicum lessons to document authentic teaching practices as they occurred in real time. The purpose of the observations was to capture how pre-service English language teachers enacted reflective, cognitive, and linguomethodical strategies during classroom instruction. Each participant was observed three times over the course of the semester, allowing the researcher to track changes in reflective behavior and pedagogical decision-making over time.

To ensure systematic and consistent data collection, an observation guide was developed, encompassing seven major activity categories:

1. Lesson Planning and Goal Orientation Evaluating whether lesson objectives were clearly articulated, logically sequenced, and linked to prior learning; identifying evidence of reflection-in-planning (e.g., lesson plan modifications based on prior feedback).
2. Instructional Strategies and Methods Observing the use of linguomethodical approaches (e.g., communicative tasks, grammar-based explanations, interactive activities) and how teachers adapted them to learners' needs.
3. Classroom Interaction Patterns Recording teacher-student and student-student interactions, with particular attention to questioning techniques, feedback styles, and responsiveness to learner input.
4. Reflective Decision-Making in Action Identifying instances of reflection-in-action, such as when teachers adjusted strategies spontaneously (e.g., clarifying instructions, altering groupings, modifying pacing).
5. Use of Reflective Tools and Prompts Documenting any self-questioning, reflective prompts, or feedback mechanisms employed during lessons to stimulate reflection among learners or teachers.
6. Responses to Challenges or Unexpected Events Noting how teachers addressed classroom management issues, learner misunderstandings, or technical disruptions, and whether these incidents prompted reflective evaluation.
7. Post-Lesson Reflection Indicators – Observing post-lesson dialogue or journaling behavior immediately after lessons, signaling reflection-on-action.

Observation data were recorded using the structured checklist, followed by expanded field notes containing detailed descriptions of instructional choices, classroom dynamics, and reflective responses. Each observation session lasted approximately 45–50 minutes and was conducted unobtrusively to minimize disruption.

These systematic observations provided an external, evidence-based perspective to complement participants' self-reported reflections from journals and interviews. Together,

these triangulated data sources enabled a holistic and credible understanding of how reflective behaviors emerged and evolved within authentic teaching contexts.

Reflective Journals

Over six weeks, participants submitted reflective journal entries following each teaching session. Each entry (300–500 words) was guided by structured prompts and submitted digitally for ease of analysis. The journal prompts asked participants to reflect on:

- Lesson goals and outcomes,
- Cognitive and metacognitive strategies used,
- Creative approaches applied,
- Challenges and successes,
- Implications for future lessons.

These journals served as a longitudinal record of each participant's reflective growth and the evolving integration of cognitive and creative tools in their teaching.

Semi-Structured Interviews

Following the journaling phase, individual semi-structured interviews were conducted to gain deeper insights into participants' reflective experiences and professional learning during the practicum. Each interview lasted approximately 30–40 minutes and followed a structured interview protocol designed to ensure consistency while allowing flexibility for probing follow-up questions.

The interview guide was organized around the four central dimensions of the study cognitive, metacognitive, creative, and linguomethodical reflection and contained open-ended questions encouraging detailed, experience-based responses. The guide was reviewed by three ELT teacher educators for content validity and piloted with two non-participant pre-service teachers to ensure clarity and relevance.

All interviews were audio-recorded and transcribed verbatim, ensuring accurate representation of participants' voices. Field notes were also taken to document contextual observations and non-verbal cues during the interviews. The interview transcripts were later integrated

into the thematic analysis, triangulated with data from reflective journals and classroom observations to identify recurrent patterns and interconnections among the cognitive, creative, and linguomethodical dimensions of reflection.

Justification for Instrument Use

The combined use of classroom observation, checklist-based tracking, reflective journals, and semi-structured interviews enabled methodological triangulation, offering a comprehensive and multi-perspective view of the reflective process. This integration of tools aligns with the constructivist orientation and case study design of the research, emphasizing the situated, developmental, and interpretive nature of reflection in teacher education.

Together, these instruments captured both observable behaviors and internal cognitive processes, thereby ensuring a balanced representation of reflection as both an action and a mindset within the context of pre-service English teacher development.

Trustworthiness of the Data

To ensure the rigor and validity of the qualitative findings, this study followed Lincoln and Guba's (1985) framework for establishing trustworthiness, which encompasses credibility, dependability, transferability, and confirmability. Multiple verification strategies were employed throughout the research process, as detailed below.

1. Credibility

Credibility refers to confidence in the accuracy and authenticity of the findings. To ensure credibility, methodological triangulation was applied through the comparison of data from reflective journals, classroom observations, and semi-structured interviews. This cross-verification process ensured that emerging interpretations were consistent and supported by multiple data sources.

In addition, member checking was conducted by providing participants with summaries of their interview transcripts and thematic interpretations. Participants verified the accuracy of these representations and confirmed that the interpretations reflected their intended meanings.

2. Dependability

Dependability concerns the stability and consistency of the research process over time. To establish dependability, a comprehensive audit trail was maintained documenting all procedures, including instrument design, data collection, and analysis steps.

To further ensure analytical consistency, inter-coder reliability was assessed: a second qualitative researcher independently coded a subset of reflective journal data. Coding agreement was evaluated using Cohen's Kappa coefficient, and discrepancies were discussed until full consensus was achieved.

3. Transferability

Transferability addresses the extent to which findings may be applicable to other contexts. This was supported through the use of thick description, providing detailed accounts of the research context, participant characteristics, and reflective activities. Such transparency enables readers to determine the relevance of the findings to other pre-service teacher education contexts particularly within non-Western and post-Soviet educational environments similar to Kazakhstan.

4. Confirmability

Confirmability ensures that findings are derived from participants' experiences rather than researcher bias or assumptions. To achieve this, all analytical decisions and interpretive memos were documented systematically during data analysis. The researcher maintained reflective journals and memos to record evolving insights and minimize subjectivity.

Additionally, peer debriefing with an external ELT researcher and ongoing data triangulation supported confirmability by verifying that all interpretations were firmly grounded in the data itself.

Collectively, these procedures strengthened the overall trustworthiness and integrity of the study, ensuring that its conclusions were credible, dependable, transferable, and confirmable according to established qualitative research standards.

Data Analysis

The qualitative data were analyzed using thematic analysis, following the six-phase framework proposed by Braun and Clarke (2006). This approach allowed for a systematic yet flexible exploration of recurring patterns across reflective journals and interview transcripts, enabling the identification of how cognitive, creative, and linguomethodical strategies were enacted in participants' reflective practice.

Step 1: Familiarization and Initial Coding

All reflective journals and interview transcripts were read repeatedly to achieve deep familiarity with the data. During this stage, open coding was employed to label meaningful text segments related to cognitive strategies, creative approaches, and pedagogical reflection. Initial codes captured explicit practices (e.g., lesson adjustment, use of metaphor, self-questioning) as well as implicit reflections on teaching identity and methodological awareness.

Step 2: Theme Development

The initial codes were subsequently clustered into broader themes and subthemes, informed by theoretical perspectives including Flavell's (1979) model of metacognition, Bloom's taxonomy of cognitive processes, and Vygotsky's (1978) sociocultural theory of learning. For example, codes such as self-questioning, lesson revision, and visual metaphor were grouped into overarching categories such as Strategic Thinking, Creative Expression, and Pedagogical Adaptation. These thematic clusters reflected both the cognitive and affective dimensions of reflective engagement, capturing how participants conceptualized and transformed their teaching practices through reflective inquiry.

Table 1*Themes and Sub-Themes from Reflective Journals*

Theme	Sub-Themes	Example from Data
Cognitive Reflection	Metacognitive monitoring	“I realized students needed more scaffolding before engaging with texts.”
Creative Reflection	Metaphorical thinking, storytelling	“Teaching today felt like guiding a team through a maze with a walkie-talkie.”
Linguomethodical Adaptation	Differentiation, multimodal teaching	“Using digital tools and hands-on tasks helped engage all students.”

Step 3: Review and Refinement

The initially developed themes were reviewed and refined through an iterative process to ensure coherence, internal consistency, and distinctiveness. Each potential theme was compared against the full data set to confirm that it accurately represented participants' experiences and that overlapping themes were conceptually separated.

Instances of contradictory or deviant data were also examined to capture the range and variation in reflective engagement across participants. This step strengthened the credibility and authenticity of the thematic structure by acknowledging both convergent and divergent perspectives present in the data.

Step 4: Depth Evaluation Using Rubric

To complement the thematic analysis, the depth of reflection demonstrated in participants' journals was evaluated using a modified version of Bain et al.'s (2002) Reflective Depth Rubric.

Each journal entry was assessed using these criteria to determine the reflective sophistication of participants over time. This process provided an analytical depth measure that complemented the qualitative thematic findings and allowed cross-validation between levels of reflection and thematic patterns observed in the broader data set.

Table 2*Reflective Depth Rubric for Journal Entries (Adapted from Bain et al., 2002)*

Level Description		Indicators	Example from Data
1	Descriptive	Summarizes events with minimal interpretation or evaluation	“Students completed the task successfully.”
2	Analytical	Identifies strengths and challenges without deep analysis	“Students engaged well, but some struggled with comprehension.”
3	Critical	Evaluates instructional choices and considers alternative approaches	“Next time, I’ll provide scaffolding for better listening task comprehension.”
4	Transformative	Links reflection to theory and proposes innovative practice	“Comic books helped visual learners. This aligns with multimodal learning theory.”

Table 3*Reflection Levels and Key Features of Journal Entries by Participant (N = 12)*

Participant	Entry #	Reflection Level	Justification / Key Traits
P1	1	Level Transformative	4- Used gender-inclusive comics; connected reflection to equity pedagogy
P1	2	Level 3 – Critical	Noted student confusion with the task; planned differentiated instruction
P2	1	Level 3 – Critical	Identified listening comprehension issues; proposed shorter audio inputs
P2	2	Level 3 – Critical	Evaluated student engagement drop; suggested an interactive warm-up
P3	1	Level 3 – Critical	Critiqued lesson pacing; planned graphic organizer support
P3	2	Level 4 Transformative	– Linked visual aids to Gardner’s theory; planned multimodal adaptation
P4	1	Level 4 Transformative	– Reflected on LEGO task’s emotional impact; proposed digital storytelling integration
P4	2	Level 3 – Critical	Assessed group dynamics; revised peer roles for collaboration
P5	1	Level 4 Transformative	– Focused on vocabulary retention and student emotion; related to cognitive load theory
P5	2	Level 4 Transformative	– Connected image used visual learning theory; planned more inclusive material
P6	1	Level 3 – Critical	Balanced game-based learning with academic vocabulary scaffolding
P6	2	Level 3 – Critical	Adjusted pacing after recognizing students’ cognitive overload

Step 5: Validation

To enhance the rigor and reliability of the analysis, a dual validation process was implemented involving inter-coder agreement and member validation. First, inter-coder reliability was established by having a second qualitative researcher independently review and code a subset of the data. The level of agreement between coders was assessed, and discrepancies were discussed collaboratively until a shared interpretation was reached. This

process ensured that the thematic categories were consistently defined and reliably applied across the dataset.

Second, member validation (member checking) was conducted with the study participants. Summaries of key themes and interpretations were shared with them to confirm that the findings authentically represented their intended meanings and lived experiences. Their feedback reinforced the credibility and confirmability of the thematic structure, ensuring that the interpretations remained grounded in participants' perspectives rather than the researcher's assumptions.

Interview Analysis

In addition to journal analysis, semi-structured interviews with the six pre-service English language teachers were examined using Braun and Clarke's (2006) thematic analysis. This method enabled the identification of recurring patterns and insights related to participants' experiences with cognitive and creative strategies during their teaching practicum. The analysis followed a systematic coding process consistent with the approach used for journal data.

These themes enriched the journal data, offering verbal elaboration and validation of participants' written reflections. The triangulated analysis revealed how the integration of cognitive and creative strategies contributed to the development of linguomethodical reflection and instructional decision-making.

Table 4.
Thematic Analysis of Semi-Structured Interviews

Theme	Sub-Themes	Example Quotes	Reflective Type
Cognitive Reflection	-Metacognitive startegies- Structured analysis-Self-monitoring	“ I use SWOT analysis...it helps identify what went well and what to change.” “ I asked myself: what worked and why?”	Cognitive
Creative Reflection	-Visual tools-Storytelling & metaphors-Role-play	“I used mind maps to track student engagement.” “Teaching felt like directing a stage play.” “I use visual journals.”	Creative
Combined Preference Approach	-Balance of logic and emotion- Complementary strategies	“Cognitive stretches my thinking, creative gives emotional insight.” “Both	Integrated Reflection

			help me plan better and motivate students.”	
Instructional Adaptation	-Lesson redesign-Differentiation-Strategy adjustment		“I adjusted my lesson by adding guided practice.” “I redesigned tasks to fit different student levels.”	Linguomethodical Impact
Student Needs Awareness	-Engagement gaps-Responsive teaching		“Reflection showed students needed scaffolding.” “I noticed task instructions were unclear and changed them next time.”	Reflective outcome
Challenges and Barriers	-Time constraints-Creative confidence-Student reluctance		“Time was the biggest barrier.” “I didn’t feel artistic enough for creative tasks.” “ Some students were shy at first.”	Reflective challenge
Support Tools and Strategies	-Bloom’s Taxonomy-Digital tools-Peer Feedback		“I use Bloom Taxonomy and Padlet.” “Peer feedback helped during lesson study.” “Google forms for self-assessment.”	Practical Support
Future Reflection Goals	-Systematic reflection-Use of digital tools-Workshops		“I want to try video journaling.” “I plan to keep a digital reflection journal.” “Attending creative reflection workshops would help.”	Professional Growth
Advice to Others	-Start small-Mix methods-Be consistent		“Don’t overthink it-just reflect.” “Use both logic and creativity.” “Try different approaches to find what fits you.”	Reflective Attitude

Ethical Considerations

Informed Consent

Before data collection, all participating pre-service English language teachers received comprehensive written information outlining the purpose, scope, and procedures of the study, along with their rights and entitlements as participants. Each participant provided informed written consent, confirming voluntary participation and acknowledging their right to withdraw from the study at any time without penalty. The consent process emphasized transparency, autonomy, and respect for participant agency in accordance with institutional ethical guidelines.

Confidentiality and Data Security

To maintain participant confidentiality, all data were coded with unique identifiers, and any personally identifiable information was removed before analysis. Audio recordings, transcripts, and reflective journal files were stored on encrypted, password-protected servers, accessible only to the principal investigator and authorized research staff. Reflective journals and interview transcripts were anonymized to ensure privacy and impartiality during interpretation. All data handling procedures adhered to institutional research ethics standards, with digital and physical data scheduled for secure deletion following the final reporting phase of the study.

Findings and Discussion

This section presents an integrated analysis of reflective journals and semi-structured interviews from six pre-service English language teachers (PSTs). Data were analyzed following Braun and Clarke's (2006) six-phase thematic analysis procedure. The process included familiarization, coding, category development, theme generation, review, and definition. To ensure consistency in depth and interpretation, Bain et al.'s (2002) Reflective Depth Rubric was applied to guide coding and determine the reflective level of each data segment (descriptive, dialogic, critical, or transformative).

Participants frequently reported using cognitive strategies such as Bloom's Taxonomy, SWOT analysis, reflective rubrics, and peer feedback to organize their thinking during lesson planning and evaluation. These frameworks were not employed as analytical tools in this study but were instead participant-driven resources that they independently used to guide their reflection. Such self-initiated use of structured frameworks facilitated metacognitive reflection, enabling participants to assess their teaching effectiveness and identify areas for improvement.

It should be noted that the findings presented above are primarily base on participants' self-reported data from reflective journals and semi-structured interviews. While these sources provide rich insights into cognitive, metacognitive and linguomethodical reflection processes, classroom observation data were not extensively integrated to corroborate these reports. For instance, although Participant 2 reported using SWOT analysis to guide reflection, observational data do not fully confirm whether this strategy translated into

observable changes in subsequent teaching. This limitation suggests that while participants' reflections demonstrate active engagement with structured cognitive and creative strategies, future research could strengthen validity by triangulating self-reports with classroom observations to examine how reflective strategies manifest in practice.

Themes were derived through a combination of inductive and deductive analysis: inductively from repeated patterns emerging across participants' reflections and deductively from the conceptual framework that links cognitive and creative strategies to reflective depth and teacher development. The following themes are presented according to the study's three research questions.

RQ1. What reflective strategies do pre-service English language teachers employ during their reflective practice?

Theme 1: Structured Thinking Through Cognitive Tools

Participants frequently employed cognitive strategies such as Bloom's Taxonomy, SWOT analysis, reflective rubrics, and peer feedback to organize their lesson planning and evaluation. These strategies helped participants to monitor their performance, identify weaknesses, and plan pedagogical improvement:

"I use SWOT analysis after lessons. It helps me see what worked and what I need to change." (P2)

A consistent developmental pattern emerged across reflective journals: early entries were largely descriptive, focusing on classroom events and emotions, whereas later reflections displayed dialogic and critical engagement through self-questioning, conceptual reasoning, and redesigning lesson activities. According to Bain et al.'s (2002) rubric, this progression reflects movement from lower-level (descriptive) to higher-level (transformative) reflection.

These findings support Farrell's (2015) stages of reflective depth and align with Moon's (2013) argument that cognitive scaffolds can strengthen metacognitive awareness. They extend this literature by showing that SWOT analysis and Bloom's Taxonomy commonly

used for learning assessment can also serve as reflection scaffolds that promote linguomethodical reasoning among novice ELT teachers.

Theme 2: Expressive Reflection Through Creative Strategies

Participants also employed creative strategies metaphors, storytelling, diagrams, and drawings to express personal insight and emotional connection with classroom experiences. These modes enabled participants to articulate nuanced understandings of classroom dynamics:

“Teaching this lesson felt like directing a play each student had a role, and I had to keep the scene flowing.” (P5)

Creative reflection encouraged holistic engagement with teaching, balancing emotional awareness and analytical thought. This mirrors Simpson et al. (2022) and Harvey et al. (2020), who found that creative modes foster teacher empathy and identity development. The use of artistic metaphors in this study also parallels Loughran’s (2019) concept of “pedagogical seeing,” whereby teachers reconstruct practice through imaginative reinterpretation.

Together, cognitive and creative reflections suggest that participants began to internalize reflection as both a rational and affective process, leading to more authentic awareness of classroom realities.

RQ2. What reflective strategies do pre-service English language teachers employ during their reflective practice?

Theme 3: Awareness of Methodological Gaps

Participants recognized discrepancies between their theoretical knowledge and classroom practices. While they were familiar with methods such as Grammar Translation (GTM) and Communicative Language Teaching (CLT), they struggled to consistently apply learner-centered principles in large or mixed-ability classrooms:

“I know CLT is better, but sometimes I just fall back on translation because it is easier in a big class.” (P4)

This theme highlights an awareness of pedagogical misalignment and the need to integrate methodological understanding into practical decision-making. It echoes findings by Yilmaz (2021) and Ablayeva (2023), who reported similar tensions among novice English teachers in Kazakhstan. The data indicate that reflection not only revealed these gaps but also motivated participants to seek better congruence between linguistic theory and instructional reality a key aspect of linguometrical reflection.

Theme 4: Metacognitive Insight and Self-Regulation

Several participants demonstrated growing capacity for metacognitive awareness, questioning their instructional decisions and planning for improvement:

“After each class, I think: Did they actually learn? Or did I just cover the material?” (P6)

These reflections reflect Flavell’s (1979) model of metacognition, involving awareness of one’s cognitive processes and strategies for regulating them. Participants’ journals revealed movement from self-description to evaluative and predictive reasoning, evidencing higher-level self-regulation consistent with Farrell’s (2015) reflective teacher development model.

The emergence of this theme suggests that linguometrical reflection is not limited to methodological knowledge but also involves critical awareness of teaching cognition, reinforcing findings by Korthagen and Vasalos (2010) that metacognitive insight drives adaptive professional growth.

RQ3. Why and in what ways do these reflective strategies influence their instructional awareness and pedagogical decision-making?

Theme 5: Blended Strategy Use Promotes Instructional Adaptability

Participants who integrated both cognitive and creative strategies described becoming more flexible and responsive teachers. The combination of analytical and intuitive reflection enabled them to evaluate teaching from multiple perspectives:

“Cognitive stretches my thinking; creative helps me feel the lesson differently.” (P3)

Entries coded as Level 4 (Transformative) on Bain et al.'s rubric typically contained this synthesis merging structured evaluation with emotional understanding. One participant, for instance, used student-created comics to reflect on inclusive pedagogy, linking creativity to the development of student identity. This finding aligns with Zeichner and Liston's (2014) view that reflective adaptability is a marker of teacher professionalism.

Theme 6: Identity Formation and Professional Confidence

Through sustained reflection, participants developed clearer teaching identities and greater confidence in their professional roles. The integration of cognitive and creative strategies enabled them to articulate personal teaching philosophies:

“Reflection helped me see myself not just as a student, but as a teacher.” (P1)

This process of self-realization parallels Catalano (2020) and Chan and Lee (2021), who emphasize reflective practice as a foundation for identity formation in teacher education. The creative dimension, in particular, fostered emotional engagement and ownership of pedagogical values, transforming reflection from a routine task into a vehicle of self-authorship.

The findings highlight the value of integrating cognitive and creative reflective strategies into pre-service English teacher education. Cognitive tools such as Bloom's Taxonomy and SWOT analysis provide structure for analytical reflection, while creative modes encourage emotional engagement and innovative thinking. Programs should therefore design reflective activities that promote both dimensions structured cognitive scaffolding and creative expression to enhance linguomethodical reflection, metacognitive awareness, and professional identity development.

Furthermore, embedding Bain et al.'s Reflective Depth Rubric within reflective assignments can help teacher educators monitor growth in reflective sophistication. Future research may explore how guided reflective frameworks influence long-term teaching efficacy and adaptability in the Kazakhstani ELT context.

Conclusion

This study explored how pre-service English language teachers employed cognitive and creative strategies within their reflective practice to foster linguomethodical awareness and instructional adaptability. Through Braun and Clarke's (2006) thematic analysis, supported by Bain et al.'s (2002) Reflective Depth Rubric, the findings revealed a multidimensional process of reflective growth connecting analytical reasoning with creative self-expression. In response to RQ1, participants consistently used cognitive tools including Bloom's Taxonomy, reflective rubrics, and SWOT analyses to systematically organize and evaluate their teaching experiences. Simultaneously, creative strategies such as storytelling, metaphor creation, and visual journaling enabled participants to articulate emotional understanding and construct personal meaning from their classroom experiences. The combination of these approaches fostered both critical analysis and empathetic engagement, deepening their reflective insight. Addressing RQ2, the thematic analysis revealed participants' growing awareness of theory and practice gaps and increasing metacognitive insight. Their reflections evolved from descriptive recounts toward critical, theory-informed analyses, demonstrating progressive development in linguomethodical thinking and pedagogical reasoning. This transition signifies a movement toward deeper, transformative reflection consistent with established reflective frameworks (Farrell, 2015; Moon, 2013). In relation to RQ3, the integration of cognitive and creative strategies enhanced participants' instructional flexibility and contributed to the formation of their professional identities. Participants began to connect reflective insights to lesson planning, classroom management, and learner-centered decision-making, reflecting a shift from procedural reflection to transformative professional engagement. Overall, the study underscores the pedagogical value of a blended reflective model that unites cognitive structure with creative expression in teacher education. Despite challenges such as limited time and initial uncertainty with creative techniques, participants benefited from structured frameworks, peer collaboration, and digital reflection platforms, which supported sustained engagement and deeper understanding. The findings suggest that pre-service teacher education programs should purposefully integrate both analytical and imaginative reflective approaches to nurture teachers who are critical, adaptive, and contextually responsive. Embedding structured tools like Bain et al.'s Reflective Depth

Rubric and incorporating multimodal creative tasks can strengthen reflective sophistication, metacognitive regulation, and professional identity formation. Such an integrated reflective approach holds promise for cultivating future English language teachers who are not only methodologically competent but also reflective, innovative, and resilient practitioners capable of navigating the dynamic realities of 21st-century classrooms.

Strategic Recommendations for Enhancing Reflective Practice

Based on the findings presented in Section 3.13, which revealed how pre-service English language teachers used both cognitive and creative strategies to develop linguomethodical reflection, the following recommendations are proposed to strengthen reflective practice within teacher education programs. These recommendations directly derive from participants' experiences of structured cognitive tools and expressive creative methods that supported their reflective depth and professional identity formation.

1. **Integrate Cognitive and Creative Reflective Methods** Teacher education programs should intentionally combine analytical strategies (e.g., reflective rubrics, guided questioning) with creative approaches (e.g., storytelling, visual journaling, metaphor creation). This balanced approach mirrors how participants in this study used both logical and imaginative reflection to deepen their metacognitive awareness and enhance lesson evaluation. Embedding both methods within coursework encourages flexibility in reflection and supports holistic teacher development.
2. **Leverage Digital Platforms for Reflection** Findings indicated that reflection was often constrained by time and access. Digital tools such as Padlet, Google Forms, or journal apps can facilitate continuous and collaborative reflection. These platforms allow for multimodal expression (text, audio, visual) and align with participants' creative engagement patterns. Integrating digital reflection tasks across teaching practicums can promote sustained reflective dialogue and peer learning.
3. **Foster a Supportive Reflective Culture** The study showed that participants valued feedback and emotional safety during reflection. Institutions should therefore cultivate a supportive environment where pre-service teachers feel comfortable sharing challenges and

insights. Structured peer review sessions, mentoring, and collaborative discussions can foster trust and promote deeper, critical levels of reflection.

4. Address Barriers to Creative Reflection Several participants initially expressed discomfort or uncertainty when using creative strategies. Teacher educators should provide clear exemplars, scaffolding, and time for guided creative reflection. Demonstrating the value of metaphors, storytelling, and visual representation can help trainees gain confidence and explore new modes of expression in reflective practice.
5. Promote Lifelong Reflective Engagement Reflection should extend beyond pre-service training into continuous professional development. Encouraging teachers to maintain reflective habits through professional journals, communities of practice, or digital portfolios can help sustain metacognitive growth and adaptability throughout their careers. This aligns with the transformative levels of reflection identified in participants' journals and interviews.

Future Research Directions

Building on the findings of this study, future research should further explore how cognitive and creative reflective strategies contribute to the sustained development of linguomethodical reflection among English language teachers. Longitudinal studies could investigate how these reflective habits evolve as pre-service teachers transition into their in-service roles, particularly examining whether early engagement with reflective tools (such as journals, peer feedback, and creative expression) leads to long-term pedagogical adaptability.

Additionally, future studies could adopt mixed-methods or cross-institutional designs to capture a more comprehensive picture of reflective development in diverse teacher education contexts. Since participants in this study emphasized the usefulness of digital tools for flexible and multimodal reflection, future research may also examine how digital and AI-supported platforms (e.g., e-portfolios, reflective learning analytics) can scaffold self-regulated reflective growth.

Exploring cultural and contextual influences on reflective practice in Kazakhstan and other post-Soviet educational settings would also provide valuable insights into how institutional

norms and teaching traditions shape the development of reflective and creative teacher identities.

Study Limitations

While the study offers important insights into the reflective practices of pre-service English language teachers, several limitations should be acknowledged to guide interpretation and future inquiry.

Sample Size and Context.

The study involved six pre-service teachers from a single teacher education institution. Although purposive sampling allowed for in-depth qualitative exploration, the findings cannot be generalized to all pre-service teachers or institutional contexts. Future research could include larger and more diverse samples to enhance representativeness.

Self-Reported Data.

The data relied on participants' reflective journals and interviews, which may have been influenced by selective recall or socially desirable responses. Although triangulation and member checking were applied, self-reporting remains an inherent limitation.

Variability in Reflective Depth.

Participants' reflections showed differing levels of cognitive and creative engagement. Some demonstrated critical, transformative thinking, while others remained at descriptive stages. Time constraints and unfamiliarity with creative methods may have restricted the depth of reflection.

Researcher Interpretation.

As with all qualitative analysis, the researcher's interpretive lens could influence the thematic coding. Strategies such as inter-coder agreement and reflective memoing were used to enhance credibility, but complete objectivity cannot be claimed.

Technology Access and Digital Literacy.

While digital tools supported reflective expression, disparities in technological access and digital proficiency may have affected participants' engagement and consistency in reflective tasks.

Recognizing these limitations provides a foundation for methodological refinement and deeper exploration in future studies of reflective practice and linguomethodological development.

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