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Modeling Professional Development of EFL Pre-Service Teachers in China: A Three-Practice Pathway and Mechanism-Based Approach

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Abstract

In recent years, while practice-oriented approaches have gained increasing attention in teacher education, existing research often treats practicum experiences as fragmented stages, with limited attention to how they interact to shape the professional development of EFL pre-service teachers. To address this gap, the present study introduces the Pathway-Dimension-Mechanism (PDM) model. Drawing on insights from Situated Learning, Ecological Systems, and Transformative Learning theories, the model outlines a developmental process consisting of three interrelated phases: classroom observation, guided Practicum, and inquiry-based reflection. A mixed-methods design was used, combining longitudinal questionnaire data from 182 pre-service EFL teachers, semi-structured interviews with 30 participants (15 pre-service teachers and 15 mentor teachers), and qualitative analysis of interview transcripts and supplementary materials (including classroom observation records, teaching portfolios, and reflective documents) from a sub-sample of 24 pre-service teachers. Results indicate distinct patterns of growth across four competency areas: lesson planning, classroom management, reflective inquiry, and the formation of professional identity. At the same time, the study highlights gaps in continuity and coordination among different support systems. The PDM model provides a conceptual framework for linking developmental tasks with evolving competencies and organizing a multi-layered support structure involving universities, schools, and peer communities. The findings provide practical insights for improving teacher education practices and offer a context-sensitive framework that can inform program design and implementation in similar educational settings.

Keywords

EFL Pre-Service Teachers, Teacher Development, Practicum Pathway, Mixed-Methods Research

1. Introduction

As the demand for high-quality English education continues to grow in China, widespread reforms in teacher education programs have taken place, especially those of English as a Foreign Language (EFL) tutors. Despite the fact that many institutions have included more practice based elements in their curricula, persistent structural and pedagogical challenges remain, particularly the fragmented incorporation of Practicum experiences and the absence of coherent frameworks for guiding developmental approaches for pre service teachers. Many of the existing studies tend to isolate an activity from classroom observation or teaching reflection without identifying how these activities are interrelated in the entire context of the teacher development process.

This issue is not unique to the Chinese context. Globally, teacher education programs have increasingly shifted toward integrated and practice-oriented developmental approaches that emphasize reflective practice, professional identity, and sustained engagement across contexts (Darling-Hammond, 2017; Yan & He, 2010; Zhu, Mena, & Johnson, 2020). In response to these gaps, this study presents the Pathway-Dimension-Mechanism (PDM) as a model to understand the development of EFL pre- service teachers. When viewed as a stage and recursive trajectory, professional learning is conceptually understood to follow three interlinked phases, first Observation, Practicum, followed by Inquiry-Based Reflection. Phases contribute differently to advancing pedagogical competence, reflective capacity, and identity formation of the teachers. Most importantly, the model illustrates the supportive ecosystem required to sustain teacher development—an ecosystem involving university instructors, school-based mentors, and peer collaboration.

The Pathway-Dimension-Mechanism (PDM) model draws support from three complementary theoretical viewpoints. Situated Learning Theory (Lave & Wenger, 1991) describes learning as gradual participation inside a community of practice. It stresses the shift from peripheral participation to full membership. Ecological Systems Theory (Bronfenbrenner, 1979) focuses on multi-layered environmental impacts on individual growth. It highlights connected systems that shape learning paths. Transformative Learning Theory (Mezirow, 1991) adds another layer. It views professional growth as critical reflection and shifts in personal viewpoints. These theories together form a solid base. They help explain teacher development as a changing, context-bound and reflective process (Jiang & Zhang, 2021; Farrell, 2015). This combined theoretical framework brings new value to teacher education research. It puts forward an integrated model built on empirical evidence. This mixed-methods empirical study tests the PDM model in three Chi-

nese normal universities. The work verifies the model. It offers conceptual ideas and practical suggestions. The suggestions aim to boost coherence and long-term effects of EFL teacher training programmes.

This study aims to examine how EFL pre-service teachers develop across the three practicum stages and to propose an integrated Pathway-Dimension-Mechanism (PDM) model that captures the interaction between developmental trajectories, competency dimensions, and support mechanisms.

2. Literature Review

This chapter examines the body of research on pre-service teacher development, but with a clear emphasis on the empirical work in EFL instruction. It highlights the necessity to overcome theoretical and empirical problems which will be solved by the suggested PDM model. Within both international and Chinese scholarly discourses, the study offers an integrated framework which aims to avoid fragmentation in teacher education practices.

2.1. Global Trends and Shifting Paradigms in EFL Teacher Development

Studies about teacher professional development (TPD) have changed greatly in recent decades. Research moved away from skill-focused models. It turned to more complete constructivist perspectives. These perspectives stress teacher identity building, reflective practice and social interaction (Beauchamp & Thomas, 2009; Darling-Hammond, 2017; Browning & Korthagen, 2021; Schön, 1983). These views state teacher growth is not just about picking up teaching skills. It is a meaningful, context-rooted process of growing into a professional. Within EFL settings, teacher learning is widely seen as a changing, situation-bound process. Such learning is tied closely to real experiences and group participation in practice communities (Farrell, 2015).

Many countries have well-known teacher training systems. Finland's teacher preparation connects practicum work with inquiry-driven learning (Leijen, Pedaste, & Baucal, 2022). Singapore uses a staged growth model backed by regular mentoring (Tan & Koh, 2018; Ng, 2008). Beyond Finland and Singapore, New Zealand, Canada, and Australia likewise emphasise coherent practicum structures and mentoring (Grudnoff, Haigh, & Mackisack, 2017; McNeilly et al., 2022; Gutierrez & Nailer, 2021). Both systems value consistent growth, cooperation between institutions and reflective practice.

2.2. The Chinese "Three-Practice" Model: Achievements and Tensions

Chinese normal universities widely adopt the "Three-Practice" model (Jiànxí-Shíxí-Yánxí). It serves as a major route for pre-service teacher training. This model divides professional training into three ordered stages. The stages are classroom observation, supervised practicum, and inquiry-led reflection. This framework follows national policy requirements. The policies push for practice-focused

and competency-centered teacher training. It shows a wider shift in China toward experiential and ability-oriented teacher education.

Empirical studies point to ongoing difficulties in real implementation. Yan and He found poor feedback connection across different stages. Learning experiences become separated instead of building on one another. Wang, Yuan, and Lee discovered several weak points. The observation phase often lacks organized guidance. The practicum phase may turn into routine tasks. The inquiry stage usually receives insufficient support. These problems align with global criticisms of teacher education. The core concerns include the long-standing theory-practice gap and broken professional learning experiences. The Three-Practice model works well in theory. Its actual application fails to support connected and steady teacher growth.

2.3. Toward an Integrative Framework: Bridging International Innovations and Local Realities

In order to respond to such tensions, this study offers the Pathway-Dimension-Mechanism (PDM) model as a framework to re-think EFL pre-service teacher development in China. The PDM model draws selectively on international innovations while remaining responsive to local educational realities. while remaining responsive to local educational realities, through conceptualizing teacher learning as a dynamic, spiral process involving sequential participation, multidimensional competency building and reflection-driven growth.

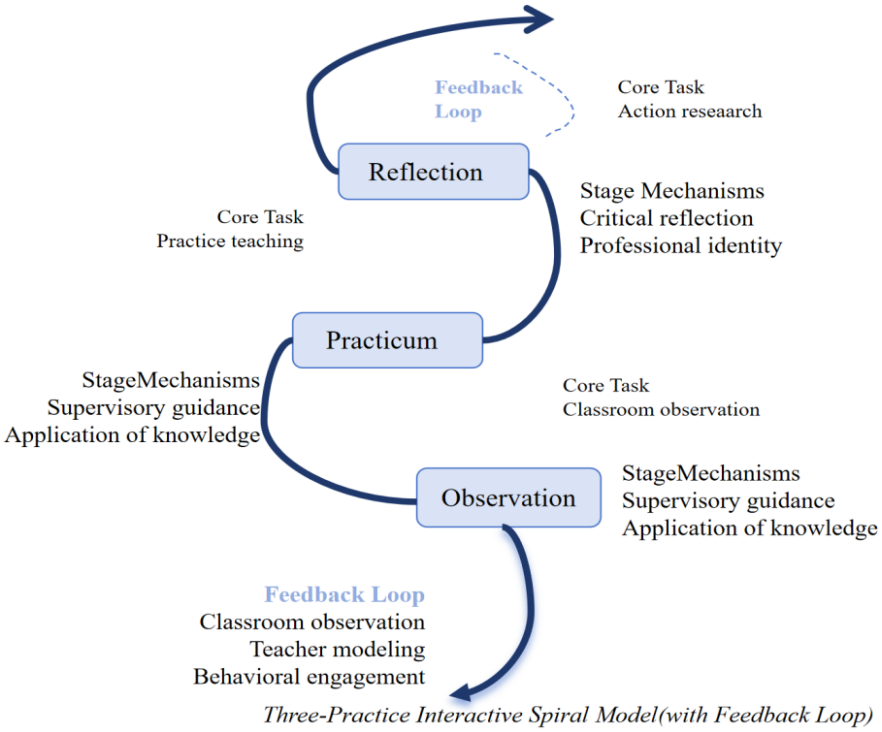

Figure 1. Spiral model of the three-practice pathway with feedback loops.

Unlike traditional models, the linear understanding that they might cause, the

PDM model emphasizes the advantages of interconnected feedback loops, ecosystemic relationships between the learning environments, and transformative reflection. Through the framework of a wide systemic developmental support structure, the temporal basis for Three-Practice model is placed within a protective developmental scaffolding process that deepens and protects its sequenced nature through mechanism-based scaffolding process. In this way, the model provides a practical framework for overcoming the theoretical limitations of fragmented practice and enhancing the effectiveness of teacher education in China's EFL context. The overall structure of the proposed PDM model and the interaction among the three developmental stages are illustrated in **Figure 1**.

As shown in **Figure 1**, the Three-Practice Interactive Spiral Model conceptualizes the professional development of EFL pre-service teachers in China as a process involving three sequential yet interconnected stages: observation, practicum, and inquiry-based reflection.

3. Theoretical Framework

This chapter provides the basis of the Pathway-Dimension-Mechanism (PDM) model, applied for the professional development of English as a Foreign Language (EFL) pre- service teachers in China. Three underpinnings of the PDM model are Situated Learning Theory (Lave & Wenger, 1991), Ecological Systems Theory (Bronfenbrenner, 1979), and Transformative Learning Theory (Mezirow, 1991). Collectively, these theories facilitate gaining insight into the ways in which pre-service teachers experience development through structured developmental stages, affecting various characteristics of their professional growth. Each theory, for example, focuses on a different component of the PDM model: the "Pathway" relates to the socially oriented character of professional practice; the "Dimension" is grounded in ecological systems of influence; and the "Mechanism" is targeted at reconstructing the process of identity through reflection.

3.1. Situated Learning Theory: Understanding Growth through Legitimate Participation

Learning is positionally situated according to Situated Learning Theory (Lave & Wenger, 1991), who criticize prevalent knowledge based view of learning. Rather, it contends that learning is realized when people engage in CoP where they develop professional competency in the context of social context through working on authentic tasks. As a result of this engagement, peripheral to full participation in the community occurs.

This progression describes a change from novice observers to full peripheral participants then to reflective practitioners in the context of pre-service teacher education, China's "Three Practice" model (Observation Practicum Inquiry). Observation tasks serve as legitimation mechanism that help students to internalize community norms and pedagogical routines. The practicum phase provides for student learning by active interaction with real learners through hands-on learn-

ing. Finally, as part of the inquiry phase, pre-service teachers integrate their learning about teaching through various experiences and theoretical knowledge.

In this theory we embed the PDM model's "Pathway" dimension, not as a linear process, but as a recursive unfolding around participation in a community mediated by both mentorship and contextual feedback. These staged progression points describe the passage of the student from the stage of cognitive apprenticeship to the one of reflective autonomy, and they structure their sequence over time to support the developmental phases.

3.2. Ecological Systems Theory: Locating Development in Interdependent Systems

Ecological Systems Theory (Bronfenbrenner, 1979) provides a layered model for understanding how individual development is influenced by multiple, interconnected systems-from direct, interpersonal relationships to broader institutional and cultural environments. These systems are structured as follows:

Microsystem: Direct environments such as mentor-student interactions or classroom dynamics.

Mesosystem: The connections between different microsystems, such as the coherence between university coursework and school-based practice.

Exosystem: Indirect environments influencing development, such as teacher certification standards or institutional policies.

Macrosystem: Overarching ideological structures, including cultural values, educational paradigms, and global discourse on teacher professionalism.

This ecological framework informs the above mentioned components "Dimension" and "Mechanism" in the PDM model. The growth of each competency domain (classroom management, instructional design, research engagement) tracks the pressures and affordances acting at different ecological levels. For instance, the macrosystem may influence how a pre-service teacher conceptualizes "good teaching," while the mesosystem may affect the coherence between what is taught at university and what is practiced in schools.

In addition, the model university mentoring, school-based coaching, and peer networks embedded in the model resolve themselves across these ecological layers as support mechanisms operating as buffers to external constraints and promoters of development inside. Ecological dissonance occurs when systems (e.g. between campus based and school based learning) are disjoint so that they fail to coordinate, meaning to roll with the flow, and in this way, they do not effect teacher development or identity formation.

This theory enables the PDM model to treat teacher development as an embedded and context-sensitive process that is continuously shaped by systemic interactions (Wang, 2022).

3.3. Transformative Learning Theory: Constructing Meaning through Critical Reflection

Transformative Learning Theory (Mezirow, 1991) postulates that deep learning

occurs in the moment an individual has its existing assumptions disoriented and must critically reflect on the way that. This concept of "perspective transformation" is central to this process and involves learners re-examine, update, or discard old beliefs and ways of thinking and start a new.

This theory also appears very applicable for areas in the Three Practice Pathway, specifically for the Inquiry phase. In this phase, pre-service teachers are required to go beyond normal teacher practice and use critical investigation of their pedagogical assumptions, evaluation of classroom feedback, and development of evidence-based strategies for improvement of teaching. These transformative experiences are often precipitated by critical incidents, or failed lessons, unpredictable student interactions, or opposing mentor feedback which forces pre-service teachers to reevaluate their professional identity and their teaching belief.

The internal transformation is captured by the PDM model's "Mechanism" component that reflects the importance of reflective practices, collaborative analysis and structured support. For instance, teacher journals, action research projects, as well as inquiry-based seminars, are used as ways of creating a critical discourse and an epistemic change (Coggin et al., 2019). This goes beyond the performative competence and is in sympathy with the emphasis on learning as perspective transformation (Mezirow, 1991).

The recursive structure of the PDM model reflects this theory, as it includes feedback loops that push pre-service teachers to revisit prior experiences-not merely for improvement, but for re-conceptualization. This positions teacher growth as a non-linear, dialectical process driven by Critical Reflection.

3.4. Integrative Theorization and Model Construction

Synthesizing these three complementary theories, the PDM model constructs a coherent and dynamic framework for the professional development of EFL pre-service teachers in China. The "Pathway" dimension reflects Situated Learning Theory (Lave & Wenger, 1991) in that it follows a progression of from peripheral to full involvement. The "Dimension" component of Ecological Systems Theory (Bronfenbrenner, 1979) is supported by ecological systems of influence that create interdependent ways in which development shapes itself. The "Mechanism" part is based on Transformative Learning Theory (Mezirow, 1991) that highlights a transformative role of Critical Reflection in professional growth.

The PDM model is enriched by each theoretical perspective, with each contributing a unique dimension to conceptualizing teacher development as a complex, contextually situated, and reflexive process. The integration of these theories into the model helps capture how pre-service teachers' professional identity and competencies develop through structured stages and how internal and external influences interact throughout this developmental process. The theoretical foundations of the PDM model and the specific contributions of each theoretical perspective are summarized in **Table 1**.

Table 1. Theoretical foundations and their contributions to the PDM Model.

Theoretical Lens	Informs PDM Component	Core Contribution
Situated Learning Theory	Pathway (Observation-Practicum-Inquiry)	Captures staged development and legitimate participation
Ecological Systems Theory	Dimension & Mechanism	Explains contextual mediation and systemic interaction
Transformative Learning Theory	Mechanism (especially Inquiry)	Frames reflection and identity change as transformative process

As illustrated in Table 1, the PDM model is positioned at the intersection of structural trajectory (Pathway), competency evolution (Dimension), and developmental enablers (Mechanism). By integrating participation phases, contextual influences, and meaning-making processes, the PDM model provides a systemic, stage-focused, and reflexive perspective for understanding how EFL pre-service teachers develop into critically engaged, pedagogically capable, and context-aware educators.

To further explicate the systemic logic of the Three Practice Pathway, we lay forth an Ecological Transformation and Integration Framework that our work in this tradition has conceptualised pre-service teacher development as a multiple dimensional process nested within four interacting subsystems of (1) educational practice contexts, (2) institutional curricular and mentoring systems, (3) school based support structures, and (4) the more general sociocultural policy context. These interlocking systems evolve in concert by continuous feedback creating ways of thinking among teachers and preparing them through each preparation stage (see Figure 2).

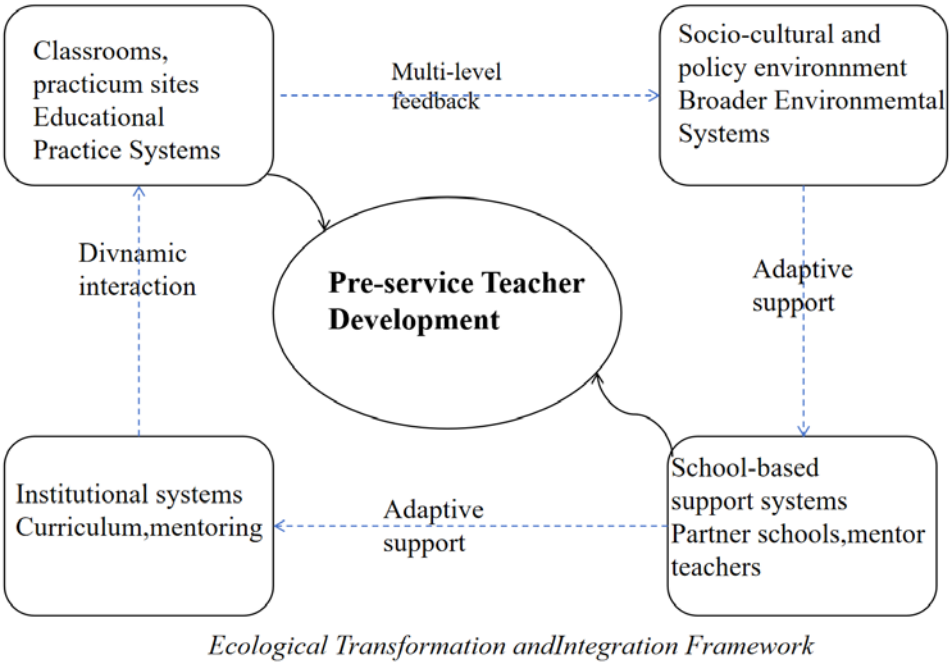

Figure 2. Ecological transformation and integration framework for pre-service teacher development.

Figure 2 shows the Ecological Transformation and Integration Framework, in which pre service teacher development is considered as a dynamic process conducted in four interdependent subsystems, educational practice settings, institutional curriculum and mentoring structures, school based support mechanisms, and broader sociocultural-policy contexts. However, these subsystems of professional learning feedback connections are continuous, mutual adaptations, and thus build together the teacher professional learnings trajectory.

The framework highlights the co-constitutive role of each of these elements in teacher growth, foregrounding their co-presence. It helps to offer a theoretical basis for studying the fit or alignment between university preparedness and its school based reality so as to understand how the integrated, responsive system can facilitate sustainable and contextualized teacher development.

In all, the PDM model has a theoretical and practical value as a means to surmount the limitations of the existing three practice structure through building systemic coherence, competency alignment, and developmental integration.

4. Research Design

4.1. Research Objectives and Questions

This study aims to investigate how pre-service EFL teachers in China develop across the Three-Practice Pathway (Observation, Practicum, Reflection), and how this process can be modeled through an integrated framework of developmental dimensions and support mechanisms. Accordingly, the research is guided by the following questions:

1. What are the characteristics of EFL pre-service teachers' professional development across the three practicum stages?

2. How do different mentoring strategies influence the construction of professional dimensions?

3. What mechanisms support the sustainable professional growth of pre-service teachers?

4.2. Research Methods

This study adopts an explanatory sequential mixed-methods design, which integrates quantitative and qualitative approaches to provide a comprehensive and triangulated understanding of the professional development of EFL pre-service teachers across the Three-Practice Pathway. The research design consists of four interconnected components.

4.2.1. Questionnaire Development and Quantitative Survey

The questionnaire was developed based on the theoretical framework of the PDM model, with items designed to correspond to three stages of the practicum process: observation, practicum, and reflection. The initial pool consisted of 30 items covering five competency domains: instructional design, classroom management, reflective capacity, research engagement, and professional identity.

The items were adapted from relevant literature and refined through expert review to ensure content validity. A pilot study involving 50 pre-service EFL teachers was conducted to evaluate the reliability and clarity of the instrument. The results indicated satisfactory internal consistency, with an overall Cronbach' s alpha of 0.886, and subscale values ranging from 0.741 to 0.892.

The questionnaire was subsequently administered to 200 pre-service EFL teachers from three Chinese normal universities. After excluding incomplete responses, 182 valid questionnaires were retained for further analysis, yielding a response rate of 91%. All 182 participants completed the questionnaire at each of the three developmental stages, and their responses were matched across stages using anonymous identification codes to enable longitudinal within-subject comparisons. Participants responded using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Exploratory factor analysis (EFA) was conducted using Principal Axis Factoring with Promax rotation to examine the underlying factor structure of the instrument. The Kaiser-Meyer-Olkin (KMO) value was 0.873, and Bartlett's test of sphericity was significant ($\chi^2 = 2163.21$, $p < 0.001$), indicating that the data were suitable for factor analysis. Six factors with eigenvalues greater than 1.0 were extracted, accounting for 68.4% of the total variance. The six-factor structure was further examined in relation to the original theoretical framework and qualitative findings.

Confirmatory factor analysis (CFA) was subsequently conducted using AMOS 26.0 on the same sample to examine the fit of the factor structure identified through EFA. Given that both analyses were conducted using the same dataset, the CFA results were interpreted as preliminary evidence of model fit rather than independent validation. The results indicated an acceptable model fit ($\chi^2/df = 1.98$, GFI = 0.91, CFI = 0.94, RMSEA = 0.056), providing preliminary support for the construct validity of the questionnaire.

4.2.2. Qualitative Interviews and Thematic Analysis

Semi-structured interviews were conducted with 30 participants, including 15 pre-service teachers and 15 mentor teachers (5 university-based and 10 school-based). The interviews focused on participants' experiences across the three practicum stages and their perceptions of support mechanisms.

Qualitative data were analyzed through thematic analysis informed by grounded theory principles. The coding process involved three iterative steps: initial coding, focused coding, and thematic categorization. NVivo 12 software was used to facilitate data organization, coding, and theme development.

The analysis aimed to identify recurring patterns related to pre-service teachers' developmental trajectories, competency dimensions, and support mechanisms within the Three-Practice Pathway. Rather than generating a new theory, the qualitative analysis was conducted to provide an in-depth interpretation of the quantitative findings and to further explain the mechanisms underlying professional development.

4.2.3. Comparative and Cross-Stage Analysis

Institutional similarities and differences in program implementation were examined through comparisons across the three participating universities. A cross-stage within-subject approach was adopted to examine changes in participants' reported professional development across the three stages of the Three-Practice Pathway. Since the same participants completed the questionnaire at each stage, paired-samples analyses were conducted to examine stage-based differences in competency development. In addition, cross-university comparisons were conducted to explore how institutional contexts and support conditions were associated with variations in pre-service teachers' developmental experiences.

4.3. Participants and Context

This study included normal university students in three Chinese universities, with accredited EFL teacher education programmes and practicing school connections. The sample included undergraduates studying at the first to third year level throughout the entire three-practice phase. A total of 200 questionnaires were distributed, and 182 valid responses were retained for analysis. The survey populations consisted mostly of females and this formed a typical representation of EFL education population, and they were spread evenly across urban and rural areas.

In addition, 30 participants were selected for interviews, including pre-service teachers and mentor teachers from both university and school contexts.

The study was conducted within a three-year practice-based teacher education program involving three developmental stages: observation, practicum, and inquiry. Empirical data were collected longitudinally across the three stages from January 2024 to September 2025, including questionnaire responses, semi-structured interviews, and relevant teaching documents.

4.4. Data Types and Collection Strategies

This study included pre-service EFL teachers and mentor teachers. They joined all research activities of their own free will. Researchers collected data over time from January 2024 to September 2025. The data came from online questionnaires, semi-structured interviews, classroom observation records, and teaching portfolios. Researchers secured informed consent from every participant. This action took place before any data collection work. Table 2 gives a summary. It lists collected data types, matching collection procedures and analytical approaches used in this study.

Table 2. Data types, collection methods, and analytical tools.

Data Type	Collection Methods	Tools and Techniques
Quantitative	Online questionnaires (via Tencent or Wenjuanxing platforms)	SPSS 26.0 (descriptive stats, ANOVA, SEM)

Continued

Qualitative	Semi-structured interviews, classroom observations, and teaching portfolios	NVivo 12 (coding organization and thematic analysis)
Documentary	Policy documents, curriculum plans, institutional guidelines	CiteSpace (bibliometric analysis), NVivo (text analysis)

As shown in Table 2, Researchers used several data sources and analysis methods. These methods improve the trustworthiness and fullness of study results. Data quality measures include informed consent, privacy safeguards and triangulation. Triangulation compares information from different participant groups and data forms. The study prioritized truthfulness and ethical standards. Participants could share real personal experiences. Their private information remained secure. Research tools contain questionnaires and interview guides. These materials appear in Appendices A - D. The setup keeps the research transparent. Other scholars can repeat this study with these resources.

4.5. Ethical Considerations

Electronic informed consent was collected before data gathering started. All participants read study information prior to filling out questionnaires. They learned about the research aim. Participation was voluntary. Their personal information would stay protected. They could stop taking part at any time. Participants clicked the agreement box on the online survey platform. This electronic action confirmed their consent before questionnaire completion.

Interview respondents also gave electronic consent before interviews began. They received details about the research aim, interview steps and privacy rules. They understood their rights as participants before giving consent. All interview records had identifying details removed. The files were stored safely. Only members of the research team could access these data.

5. Findings and Model Construction

This section presents the findings in direct relation to the three research questions. Rather than describing stages independently, the analysis is structured to explicitly address (1) developmental patterns across the three stages (RQ1), (2) the role of mentoring strategies in shaping competency dimensions (RQ2), and (3) the mechanisms that sustain professional growth (RQ3).

5.1. Developmental Patterns across the Three-Practice Stages

The developmental patterns of EFL pre-service teachers across the three-practice stages were explored through the analysis of keywords, competency displays, and reported challenges. As shown in Table 3, the three stages demonstrate distinct developmental characteristics, with observation emphasizing initial role awareness, practicum highlighting pedagogical competence development, and reflection focusing on inquiry and professional identity formation.

Table 3. Developmental patterns across the three-practice stages.

Stage	Developmental Keywords	Competency Displays	Reported Challenges
Observation	Curiosity, imitation, confusion	Basic role awareness, identification of teaching components	Low participation, unclear observation focus, passive engagement
Practicum	Trial, anxiety, experimentation	Lesson design and delivery, classroom control, mentor interaction	Classroom flow, instructional clarity, student engagement strategies
Reflection	Inquiry, integration, positioning	Reflective journaling, small-scale research, identity articulation	Theory-practice gap, shallow inquiry, limited research guidance

5.1.1. Observation Stage: Entry and Initial Engagement

The initial observation phase positions pre-service teachers as legitimate peripheral participants. They take part in classroom watching. They start to absorb teaching rules and lesson structures. Table 4 shows numerical results from this observation phase. Table 4 lists the mean score for teacher role awareness at 3.87 (SD = 0.72). The score points to basic identity building. The score for observation clarity sits much lower (M = 3.14, SD = 0.89). Trainees lack organized frameworks to make sense of classroom events. Qualitative data back up this pattern. 86% of participants said "watching more, thinking less". The statement calls for targeted observation support tools (see Appendix A for the observation-stage questionnaire).

Table 4. Survey results on teacher candidates' professional role awareness and observation abilities in the observation stage (n = 182).

Survey Dimension	Mean Score (M)	Standard Deviation (SD)	Key Descriptive Findings
Teacher Role Awareness	3.87	0.72	Most students have developed a basic understanding of the teaching profession and role identity.
Clarity of Observation Focus	3.14	0.89	Observation lacks focus; students struggle to identify key aspects of classroom instruction.
Systematic Observation Approach (Interview)	——	——	86% of students reported "watching more, thinking less," indicating the absence of a structured observational framework.

The observation phase sets the main task for pre-service teachers. They carry out classroom watching and form early understandings of teacher roles. Survey outputs show the mean score for "teacher role awareness" hit 3.87 (SD = 0.72). Most students built a basic idea of the teaching profession. The score for "clarity of observation focus" stood at only 3.14 (SD = 0.89). Students did not follow organized ways to complete classroom observation. Interview records show 86% of participants described their state as "watching more, thinking less". Learners need guided methods for observation. This result points out a common problem in early teacher growth. Observation work stays passive without planned guidance (Leijen, Pedaste, & Baucal, 2022; Yan & He, 2010).

5.1.2. Practicum Stage: Teaching Practice and Skill Consolidation

The practicum stage lets teacher candidates take on specific teaching jobs. The jobs include trial lessons, lesson planning and assignment grading. Their role slowly changes from "observer" to "practitioner". They polish teaching skills and tweak teaching methods in real classrooms. They keep improving teaching actions with mentor support. Data show this stage centers on growth in lesson design and classroom organization. Trainees also show weak points in classroom adjustment and student management. Key growth terms include "design," "trial and error," "feedback," "anxiety," and "progress."

Overall, the practicum stage represents a transition from theoretical understanding to situated instructional practice, although skill consolidation remains uneven (see Appendix B for the practicum-stage questionnaire). The quantitative and qualitative indicators of teaching practice competence during the practicum stage are summarized in Table 5.

Table 5. Development of teaching practice competence in teacher candidates during the practicum stage (n = 182).

Survey Dimension	Mean Score (M)	Standard Deviation (SD)	Key Descriptive Findings
Lesson Planning Ability	3.42	0.76	Most students demonstrate basic lesson planning skills but lack contextual and personalized design.
Classroom Organization and Interaction	3.25	0.83	Students have limited experience in classroom control and teacher-student interaction; delayed feedback and weak adaptability are common.
Awareness of Instructional Assessment	2.98	0.91	Students show weak diagnostic skills regarding learning outcomes and rely on single feedback forms.
Real-World Task Management (Interview)	--	--	71% of interviewees stated "lesson planning is easier than delivery," indicating challenges in linking planning to real-time classroom execution.

Table 5 displays the data. Pre-service teachers earned relatively higher scores in lesson planning. Their performance was weaker in classroom interaction and assessment work. Their ability dropped for flexible classroom tasks. A gap exists between written lesson plans and live teaching delivery. This result shows the difficulty of turning teaching knowledge into real classroom actions. The result matches earlier studies about the theory-practice gap (Wang, Yuan, & Lee, 2024; Yang & Liu, 2026).

5.1.3. Reflection Stage: Critical Inquiry and Professional Positioning

The research stage acts as the deepening phase of the "Three-Stage" pathway. It centers on organized reflection and educational research work. The work draws from practicum experiences. Pre-service teachers need to finish action research tasks. They write research reports. They slowly build the skill to connect theory with practice. Reflection helps them gain deeper understanding of educational duties.

Key terms like "integration," "positioning," and "identity formation" point to a new professional self-view. Repeated reflection and experience shape this view. Trainees still faced obstacles. The obstacles sit in linking theory to practice and carrying out structured inquiry (see Appendix C & Appendix D). Table 6 lists growth results from the reflection stage. These results include reflective ability, educational research awareness, and professional identity formation.

Table 6. Growth performance of English pre-service teachers in the research stage (n = 182).

Growth Dimension	Indicator Description	Average Score (5-point Likert Scale)	Interview Representation Rate
Teaching Reflection Ability	Able to actively write teaching journals and analyze classroom successes and failures	3.69	78%
Educational Research Awareness	Able to identify teaching problems and attempt to design small-scale research projects	3.21	54%
Professional Identity Formation	Able to clarify professional development goals and identify with the teacher role	3.88	82%

As shown in Table 6, Teacher candidates made greater progress in reflective ability and professional identity building. Their educational research skills stayed at a relatively lower level. Reflection ability scored M = 3.69. Identity formation scored M = 3.88. These two areas saw clear improvement. Research competence had a lower score of M = 3.21. Interview records show students could talk about changes to teaching methods. They found it hard to create strict research plans built on theory.

The whole set of results shows pre-service teachers' growth moves through stages. The progress is not balanced across areas. Early stages help trainees build role awareness. Big gains in teaching ability take place during practicum. Advanced reflection and identity development mostly appear in the inquiry stage.

This suggests that professional development is both cumulative and phase-sensitive, rather than uniformly progressive.

5.2. The Role of Mentoring Strategies in Competency Development

Survey and interview data were synthesized to identify four competency areas underlying pre-service teachers' professional development. Stage-based differences in these competency areas were examined through paired-samples t-tests to explore developmental changes across the Three-Practice pathway. The results provide empirical evidence for the developmental patterns of the competency dimensions rather than a direct test of the structural relationships among the Pathway, Dimension, and Mechanism components of the PDM model. The changes in these competency dimensions and the corresponding paired-samples t-test results are presented in Table 7.

Table 7. Developmental changes in competency dimensions across the three-practice pathway.

Core Dimension	Observation (M ± SD)	Practicum (M ± SD)	Reflection (M ± SD)	t (Obs → Prac)	t (Prac → Ref)	Significance
Instructional Design & Delivery	3.12 ± 0.66	3.65 ± 0.59	3.65 ± 0.59	3.94 ± 0.48	9.84	$p < 0.001$
Classroom Management &Moral Awareness	2.98 ± 0.72	3.41 ± 0.61	3.41 ± 0.61	3.80 ± 0.53	8.17	$p < 0.001$
Educational Research & Reflection	2.71 ± 0.69	3.22 ± 0.62	3.22 ± 0.62	3.68 ± 0.55	7.02	$p < 0.001$
Teacher Identity & Emotional Commitment	3.45 ± 0.68	3.71 ± 0.57	3.71 ± 0.57	3.88 ± 0.52	5.72	$p < 0.001$

As shown in Table 7, all four competency areas demonstrated an upward developmental trend across the three stages, with significant differences identified between stages.

However, these developmental changes correspond with different mentoring arrangements across stages. Specifically, the gains in instructional design and classroom management from the observation to the practicum stage correspond with participants' reported experiences of school-based mentoring. Participants reported that real-time guidance and feedback from school mentors facilitated the connection between theoretical knowledge and classroom practice.

Participants reported shifts when they moved into the reflection stage. Their educational research skills and reflective ability grew. The growth linked to university mentor support and organized inquiry tasks. These tasks helped them carry out systematic reflection and analytical thinking. Teacher identity and emotional commitment kept rising through all stages (Liu, Yuan, & Wang, 2025). Many support sources contribute to this growth. Peer group work creates chances for shared reflection and professional discussion.

Overall, these findings suggest that different forms of mentoring support may contribute to competency development at different stages of the pathway.

5.3. Mechanisms Supporting Sustainable Professional Development

Within the three-stage teacher preparation pathway consisting of Educational Observation, Practicum, and Research, pre-service English teachers' professional development is supported by the interaction of different support mechanisms. This section discusses three major types of support structures; challenges to them are identified and mechanisms for improving them are suggested.

5.3.1. University-Based Mentor Support

University mentors mainly manage theoretical parts of teacher training. They take charge of teaching content design. Heavy teaching tasks and big groups restrict one-on-one guidance chances. Student feedback shows a gap between theory and

practice. Trainees also wait too long to get feedback. These points weaken practicum preparation effects. They slow pre-service teachers' growth (Wang, Yuan, & Lee, 2024). University support works well through a specific mechanism. The mechanism involves timely and situation-aware exchanges. Such exchanges remain inadequate at present.

5.3.2. School-Based Mentor Involvement

Secondary school mentors hold important positions. They work as frontline educators. They give instant feedback and practice-focused guidance in the Practicum phase. These mentors carry great value. Many school mentors receive no official training for teaching supervision (Heikkinen et al., 2018). Their mentoring work mostly draws on personal experience. This may create unclear mentoring targets. The support for teaching skill growth lacks proper structure (Yoon & Kim, 2019). This shows two core features for school mentoring. Timely help and context rooted support help trainees build practical teaching abilities.

5.3.3. Peer Support and Collaborative Growth: Informal yet Impactful

Numerous Pre-service Teachers develop peer learning communities during the Practicum and research periods. Such networks promote shared lesson planning, exchange of lesson observation, and encouraging feedback that can contribute to the development of the intellectual and emotional stamina of the members. Results of analyses of interview data and teaching logs indicate that peer learning communities significantly reduce psychological stress and promote reflective practice, underscoring its pivotal role in the professional development of teachers (Fan & Xie, 2025; Wang, Elahi Shirvan, & Taherian, 2021). These findings indicate that peer support operates through a mechanism of emotional resonance and dialogic reflection, which complements formal mentoring structures.

5.3.4. Fragmentation and Reconfiguration of Support Mechanisms

By analyzing the relationships and the acts of each within the professional development pathway, the structural diagram depicts what different support structures are connected, what is the main function of these different support structures, and the gaps which occur at crucial transitions such as from university coursework to the Practicum at school. The shortcomings of the support reveal themselves if the responsibilities of the tasks do not correspond to the existing possessions. These challenges have also been identified in previous studies as a common issue in fragmented practicum systems (Yan & He, 2010). It is crucial to implement some ongoing support models such as "full-process mentorship" and "peer coaching schemes" to maintain continuity and ensure effective support at all stages of teacher development process.

As illustrated in **Figure 3**, the structural relationships among university mentors, school-based mentors, and peer support mechanisms are presented.

The results as a whole point to one fact. Steady professional growth does not depend on single support systems. It depends on how these systems connect, match and continue across stages. Three key mechanisms emerge from the data.

Different support partners interact with one another. These partners include university mentors, school mentors and peers. They offer different types of guidance to fill gaps. Any single support source has its own limits.

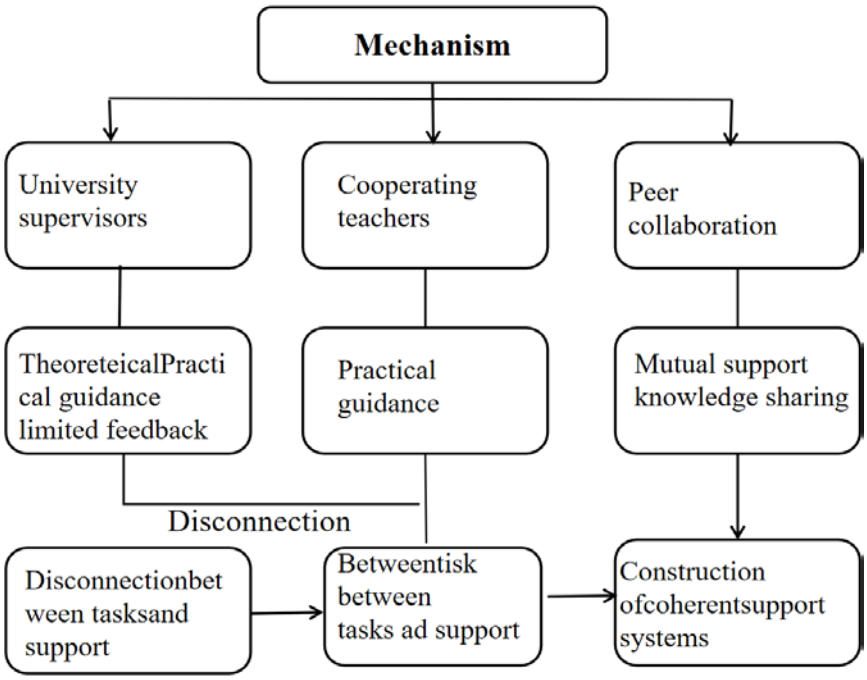

Figure 3. Structural framework of support mechanisms in the professional development pathway of pre-service EFL teachers.

Consistency across all stages carries great weight. Breaks between university courses, practicum work and reflection slow down growth progress. Matches between theory lessons and hands-on practice matter. The matches decide whether pre-service teachers can turn learned knowledge into real classroom actions. Current practice shows separated support arrangements. Such separation means these mechanisms fail to work well. The main problem lies in poor coordination between university and school settings. The Triadic Mentoring Framework comes as a solution. It boosts interaction. It keeps consistent support. It builds better matches across the whole growth pathway.

5.4. PDM Model Construction: A Professional Growth Integration Model of Pathway-Dimension-Mechanism

5.4.1. Model Construction: The PDM Framework

This study carries out deep analysis. The analysis targets professional development features of EFL pre-service teachers under the "Three-Practice" pathway. The work puts forward the Pathway-Dimension-Mechanism (PDM) Model. The model describes professional growth as a connected and changing system. The developmental pathway arranges learning experiences along the timeline. Competency dimensions stand for core growth results. Support mechanisms supply necessary supporting conditions.

Figure 4 shows details of the three parts. The parts connect and strengthen one another. They do not work separately. The model forms a layered and evolving structure. The structure records interactions between task advancement, competency growth and institutional support. These interactions run through Observation, Practicum, and Research stages.

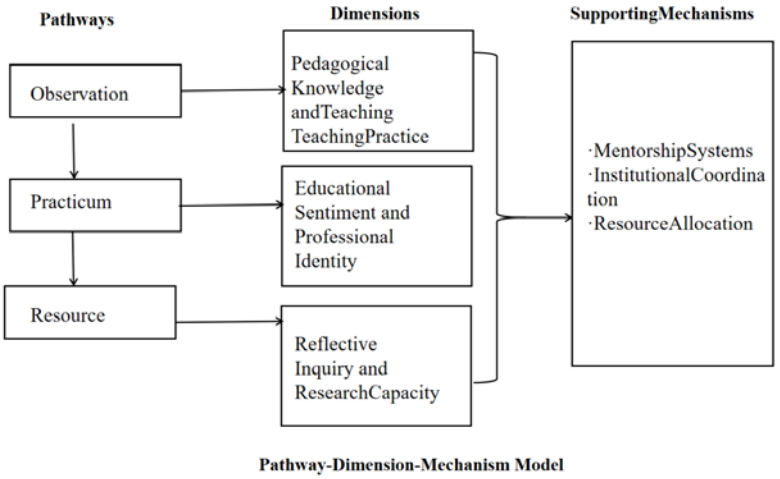

Figure 4. Pathway-Dimension-Mechanism (PDM) model of EFL Pre-service teachers' professional development.

In this sense, the PDM model extends existing frameworks of teacher development by integrating developmental pathways, competency dimensions, and mediating mechanisms into a coherent and dynamic system (Browning & Korthagen, 2021; Canrinus, Klette, & Hammerness, 2019).

5.4.2. Model Explanation: Logical Relationships of the Elements in the Model

Table 8. Alignment among questionnaire domains, empirical factors, competency areas, and PDM dimensions.

Initial questionnaire domains	Extracted factors from EFA	Reported competency areas	Final PDM dimensions
Instructional design	Lesson planning and instructional organization	Instructional design & delivery	Teaching knowledge and practical skills
Classroom management	Classroom interaction and management strategies	Classroom management	Teaching knowledge and practical skills
Reflective capacity	Reflective practice and teaching improvement	Educational research & reflection	Reflective awareness and research ability
Research engagement	Inquiry orientation and classroom-based research	Educational research & reflection	Reflective awareness and research ability
Professional identity	Teacher identity and professional commitment	Teacher identity & emotional commitment	Educational sentiment and professional identity
Observation engagement (emerged from EFA)	Observation awareness and analytical engagement	Integrated into developmental pathway rather than an independent competency	—

Factor analysis outputs adjusted the questionnaire structure. The structure was not copied directly. The original tool was built with five theoretical sections. EFA uncovered six separate factors from real data. One split observation-focused engagement from general ability growth. Researchers looked at teacher development theory and qualitative results. They combined these factors into four ability groups. The four ability groups were merged further. They formed three high-level dimensions in the PDM model. The three dimensions cover practical competence, professional identity, and reflective inquiry.

The PDM model gets its name from three built-in parts. The parts include "growth pathway" (Pathway), "growth dimension" (Dimension), "support mechanism" (Mechanism). These parts operate together. They form a unified structure for teachers' professional growth.

The next part covers the model's growth pathway. It splits pre-service teachers' professional growth into three phases. The phases are Observation, Practicum, and Research. The split follows time order and task progress. It reflects natural development from classroom watching, teaching practice to teaching research. Each phase does not merely follow the prior one in time. It connects evolving growth tasks and skill building.

At the Dimension level, the PDM model builds upon the four competency areas identified through the integration of quantitative and qualitative findings. As illustrated in **Table 8**, these four competency areas are further organized into three higher-order dimensions. The first dimension, teaching knowledge and practical skills, integrates instructional design and classroom management competencies, emphasizing the development of lesson planning, classroom implementation, and pedagogical decision-making abilities. The second dimension, educational sentiment and professional identity, represents the development of teacher identity, educational beliefs, and professional commitment. The third dimension, reflective awareness and research ability, incorporates educational research and reflective inquiry competencies, highlighting teachers' abilities to analyze, reflect on, and improve teaching practices through inquiry-based approaches. Together, these three dimensions represent the major areas of professional competence development across different stages of the pathway.

In terms of support, the model bridged three kinds of structural resources: internal resources (e.g., curriculum, including curriculum design, faculty guidance, and institutional support), external resources (e.g., internship bases, external mentors, and resources from partner schools), and peer resources (e.g., study groups, experience sharing, and support networks among colleagues). These three mechanisms weave the way through the relationships between the growth pathways and the competence dimensions, constructing a nested, interdependent support system of the dynamic, coconstructive and feedback driven growth ecosystem development.

Overall, the PDM model describes the "Pathway-Dimension-Mechanism" three tiered nested relationship among the pathway, dimensions, and mechanism

involved in the stable operation of the growth ecosystem. The equation of these elements together to coconstruct, would be driving the structural and continuous professional development of English teacher candidates.

5.4.3. Theoretical Contributions and Practical Implications

The PDM model responds to increasing calls for more integrated and practice-based conceptualisations of teacher development, moving beyond linear and stage-based models (Darling-Hammond, 2017; Browning & Korthagen, 2021). It highlights the essence of interaction of supporting systems, the logical progression of competencies, and how these combine to create a stage-based progression of teacher growth by constructing a 3-dimensional nested model. This provides a better, broad and dynamic theoretical framework of the teacher professional development.

The PDM model delivers useful ideas to upgrade teacher training programmes. The ideas sit at a practical level. It helps set proper targets. The targets separate different stages and teaching tasks in courses and practice settings. It supplies a usable structure. Researchers can design support mechanisms with this structure. Examples include teaching support from joint work between schools, internship sites and teacher training bodies. The model can lift teacher training quality greatly. It improves feedback workflows and resource exchange.

The PDM model forms a solid theoretical structure. The structure explains complex teacher development details. It also gives directions for practical suggestions. The suggestions cover curriculum building, mentor arrangements and support systems. The model fits many real situations well. It works as an effective tool. The tool can change teacher education systems. Pre-service teachers receive steady and full support. The support helps them succeed in professional roles.

6. Empirical Validation and Pedagogical Implications of the PDM Model

This section completes the confirmation of the theoretical bases for Pathway-Dimension-Mechanism (PDM) model based on the principles of qualitative and quantitative data triangulation and infers actionable insights for improving the quality of pre-service teacher education in English. The model is divided into three sub sections which include empirical validation of model, pedagogical implications on design of the curriculum and support system, and limitations and future research.

6.1. Empirical Examination of the PDM Model

The findings provide empirical evidence supporting the relevance of the PDM model as a conceptual framework for understanding pre-service teacher development. First, the developmental trajectory observed among participants reflects a staged yet recursive process, corresponding to the Pathway component. Second, competency development demonstrates a hierarchical and uneven progression, supporting the organization of the Dimension component. Third, participants'

experiences of institutional, school-based, and peer support highlight the contribution of interconnected mechanisms to professional growth. Together, these findings suggest that the PDM model provides a coherent framework for interpreting the structure and dynamics of pre-service teacher development.

6.1.1. Stage-Based Consistency in Developmental Pathways

Findings showed participants' growth experiences generally moved through distinct phases. The sequence included "observation-imitation-practice-reflection". This pattern matches the three-phase structure laid out in the PDM model. Interview records described the Observation phase. The phase mainly covers classroom observation, note taking and early role awareness. The Practicum phase centers on hands-on teaching tasks. Learners build practical teaching skills in this phase. The Inquiry phase focuses on reflection supported by evidence. It includes solving classroom issues and growing professionally through inquiry tasks. For instance, participant S8 commented:

"At first, I was just watching how the teacher conducted class; then I had to teach myself. Later on, I began analyzing classroom data to understand students' responses. The whole process felt like a deepening journey."

This quote shows the repeating nature of the PDM's Pathway concept. Professional growth builds up through repeated cycles. It does not follow a simple straight line. Earlier studies of teacher learning during practicum also found this pattern (Yan & He, 2010).

6.1.2. Hierarchical Progression in Competency Dimensions

It was then found that the four core competencies of classroom practice, subject integration, classroom management, and educational research become developed in a progressively layered, but interwoven, manner. Most of the basic teaching skills were learned during the Practicum stage, whereas more significant capabilities, such as reflective practice and research were developed later during the research period. As participant S15 reflected:

"It wasn't until I revised my lesson plans based on students' assignment feedback that I truly understood what 'learning-informed instruction' meant, as emphasized in our methodology course."

This illustrates the shift from surface-level skills to deep pedagogical understanding, validating the theoretical-practical alignment of the PDM model's "Dimension" component and echoing earlier findings on the staged development of teacher competencies across practicum contexts (Wang, Elahi Shirvan, & Taherian, 2021).

6.1.3. Synergistic Function of Support Mechanisms

The study checks the value of three types of mechanisms. They come from universities, school practice and peer groups. These mechanisms strongly support teacher growth. School mentors and peer group work prove essential. Their value shows up in practicum and research phases. Many participants shared their experience. Regular mentor comments and peer talks push them to think reflectively.

They adjust their teaching practice. These results prove the model's basic layer works in real settings. They show support systems and growth needs affect each other in many directions.

Participant S12 reflected:

"When I felt lost after a failed lesson, it wasn't my mentor but my peers who helped me rework my approach. Their feedback gave me the courage to try again."

This case shows different support forms interact with one another. It highlights the Mechanism part of the model. The part acts as a combined and mutually adjustable foundation.

6.2. Pedagogical Implications for Pre-Service Teacher Education

This study draws its teaching suggestions from collected evidence and the tested PDM model. The results point out key problems in current pre-service teacher training. These problems include uneven growth across training stages. Theory and practice do not connect well. Support systems exist in separate parts. This part puts forward practical suggestions. The suggestions aim to better build and run EFL teacher training programmes. The suggestions fit the Chinese setting. The setting faces urgent needs to coordinate growth routes and support frameworks (Darling-Hammond, 2017; Wang, Elahi Shirvan, & Taherian, 2021).

6.2.1. Curriculum Reconfiguration Based on Developmental Pathways

Building on the finding that developmental progression across stages is uneven and often fragmented, curriculum design needs to be more explicitly aligned with stage-specific learning goals. The current lack of coherence between observation, practicum, and inquiry phases suggests the need for a structured and progressive curriculum framework. A modular approach can be adopted, in which each stage is supported by interconnected courses and practice-based experiences. In the observation stage, structured modules such as classroom discourse analysis and guided observation tasks can help pre-service teachers move beyond passive viewing toward analytical engagement. During the practicum stage, integrated teaching experiences, including microteaching and mentored classroom practice, can facilitate the transition from theoretical understanding to situated action. In the inquiry stage, research-oriented components such as action research projects and reflective seminars can support deeper professional learning and critical engagement with practice. Such a staged curriculum design enhances continuity across phases and reduces fragmentation, thereby supporting a more coherent developmental trajectory.

6.2.2. Competency-Oriented Task Design for Skill Advancement

Intentionally designed instructional tasks must be used to strengthen pedagogical competence, consistent with the development of professional teaching knowledge (Darling-Hammond, 2017; Tan, 2019). There are paired, yet unique, tasks that occur in each phase of Observation, Practicum, and Research; each task is aimed to develop a particular skill and broaden understanding of effective practices in

teaching.

Observation Stage: Annotated Lesson Analysis and Reflective Journals

Tasks in the observation stage will promote pre-service teachers to go beyond passive observation to active engagement. This allows for deeper insight into the teaching methodologies by way of annotated lesson analyses where teachers critique and reflect on the instruction strategies observed. The reflective journal provides a tool for synthesis of observations and personal reactions of students and becomes the basis for them being aware of broader pedagogical patterns in the classroom environment. This gives them an idea of what the teaching role is, and internally teaches them the ways of teaching.

Practicum Stage: Co-Teaching and Lesson Study with Mentor Feedback

In the Practicum phase, pre-service teachers go from observer to being active in the teaching. Through co teaching with mentors, students get opportunities to refine their teaching strategies and get immediate, context feedback. Lesson study-including planning, teaching, and reflection of planning and teaching-provides professional development of skills in planning, teaching and assessing instruction. These collaborative tasks encourage Critical Reflection and serve as an opportunity for mentors to demonstrate good teaching strategies and scaffold students' understanding of instructional design and classroom management.

Research Stage: Classroom-Based Research Projects Linked to Specific Pedagogical Problems

During the research stage, pre-service teachers are provided with opportunity for inquiry based learning and are encouraged to research and address pedagogical issues. Classroom based action research projects would be involved in task design in which the teachers should investigate specific challenges they face in their practice (Öztüfekçi & Dikilitaş, 2025). But these projects afford a bridge between theory and the real world of teaching in order for Pre-service teachers to make critical decisions grounded in evidence. During this phase not only sharpens their research skills but also increases their capacity to link the theory to practice, increasing their competence and reflective capacity as professionals.

Such task design provides scaffolding to develop competency at such stages that they are appropriate to each phase and cumulatively on skills developed from previous phases. There is a structured progression of tasks combining theoretical knowledge with practical experience in a way that provides for a comprehensive teaching skill development.

6.2.3. Structural Integration of Support Mechanisms

Given the separated state found across support systems. Tighter combination of mentoring setups is necessary. The setup keeps professional development steady. The results show poor coordination hurts teacher training outcomes. The gap exists between university lessons, school practice and peer help.

This issue needs more focus. The focus falls on building linked support systems. Joint mentoring tasks and shared assessment steps connect university theory and classroom practice. The connection comes from shared platforms run by univer-

sities and schools (Gomez Zaccarelli et al., 2025).

Peer learning groups can get clear rules and guidance. The setup boosts emotional help and reflective talks. Digital portfolios and feedback tools support ongoing assessment from multiple sources (Astall et al., 2025). Pre-service teachers can follow their own growth. They combine feedback gained from different situations. These connected support setups improve exchanges. They maintain consistent progress and match expectations among all participants. The setup creates a more stable and unified professional development process.

6.3. Limitations and Future Research

Several limitations of this study should be acknowledged. Although participants were recruited from three Chinese normal universities, all research sites were situated within the same national teacher education context, which may limit the transferability of the findings to institutions with different educational structures or practicum arrangements. Future studies could extend the investigation to a wider range of institutional and cultural contexts to further examine the applicability of the PDM framework. In addition, this study provides empirical support for the explanatory value of the framework based on cross-stage comparisons and qualitative evidence; however, longitudinal studies are needed to explore how pre-service teachers' professional development continues after entering the teaching profession and how the relationships among pathway, competency dimensions, and support mechanisms evolve over time. Further research may also examine the applicability of the framework across different disciplines and teacher development stages.

7. Conclusion

This study puts forward the Pathway-Dimension-Mechanism (PDM) model. The model acts as a combined structure. Researchers use it to learn about EFL pre-service teachers' professional development. The research sits inside China's teacher training environment. The work uses data collected in multiple rounds. Data sources include observation records, practicum records and reflective notes from inquiry tasks. Results show teacher development moves through different phases. The process does not follow a straight line. Practice, reflection and professional identity building join together step by step.

The study shows professional growth gets shaped by taking part in different practicum phases. It also gets shaped by many support systems working together. These systems contain university mentor help, school tutor guidance and peer group work. These results show that consistent, ongoing and matched arrangements across different organisations matter. Such arrangements keep teacher development moving forward.

The PDM model adds new content to existing studies from a theoretical standpoint. It views teacher development through practice and supporting mechanisms. It moves past old models built only on straight progress or separate stages.

It describes changes in a more dynamic way. Developmental routes, ability levels and support systems interact as time passes. The model carries practical value for building teacher training courses. It helps arrange practicum activities. It improves mentor support systems. It boosts cooperation between universities and schools.

This study has several weak points despite its findings. The sample comes only from one single institutional setting. Later work can test if the PDM model works in other education and cultural environments. Researchers need long-term tracking studies. Such work can check lasting effects of training built around the PDM model on teacher development.

The PDM model creates a conceptual view. This view helps people grasp the complicated nature of pre-service teacher development. It supplies a foundation. People can rethink how to build teacher education systems. Those systems need integration and long-term operation.

Data Availability Statement

The data supporting the findings of this study may be made available from the corresponding author upon reasonable request. Due to ethical and privacy considerations, the dataset is not publicly available.

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Declaration of Generative Al and Al-Assisted Technologies in Manuscript Preparation

During manuscript preparation, the authors used Claude (Anthropics) solely for limited language editing of selected sentences in order to revise in order to improve clarity. No Al tool was used to generate research content, analyze data, interpret results, or prepare references, the ideas, argument, and intellectual contribution of the paper are entirely original. All AI-assisted suggestions were reviewed, revised where necessary, and approved by the authors, who take full responsibility for the final manuscript.

Conflicts of Interest

The author declares that they have no competing interests.

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Appendix A: Observation Stage Questionnaire

Purpose: To explore early growth of pre-service EFL teachers at the Observation stage. It centers on role awareness, observation tactics and engagement levels.

Instructions: Please rate your agreement with each statement. Base your answers on your own experience in the Observation stage.

Items	Questionnaire items	1	2	3	4	5
1	Classroom observation helps me form basic understanding of a teacher's professional role.					
2	I can identify the key parts of a lesson (such as the introduction, explanation, and conclusion).					
3	I feel a sense of participation inside the classroom while doing observations.					
4	I closely watch the teacher's teaching approaches and classroom management methods.					
5	I take careful notes and focus on key moments in lessons (e.g., teaching methods and teacher-student interactions).					
6	I write detailed observation notes to record important teaching practices (such as teaching strategies and classroom interactions).					
7	I tell effective teaching actions from ineffective ones by watching student responses and classroom atmosphere. Those actions influence student understanding and class vibe.					
8	I think over my own ideas about observations. I share and discuss these observations to get feedback from mentors or peers.					
9	I track student engagement and interaction patterns with organized observation. I notice different forms of student involvement.					
10	My classroom observation experiences raise my motivation to become a teacher. They support the development of my own teaching abilities.					

Note: (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

Appendix B: Practicum Stage Questionnaire

Purpose: To assess the development of teaching skills, classroom management, and instructional evaluation during the Practicum stage.

Instructions: Please indicate the extent to which you agree with the following statements based on your Practicum teaching experience.

Items	Questionnaire items	1	2	3	4	5
1	I am able to design clear and contextually relevant lesson plans.					
2	During actual teaching, I am flexible in adjusting my lesson plans to fit the dynamic classroom environment.					
3	I can effectively manage classroom behavior and address any issues that arise.					
4	I actively create meaningful opportunities for interaction between the teacher and students, fostering a positive classroom atmosphere.					

Continued

5	I use various classroom management strategies based on the specific needs of the situation to maintain order.
6	By observing students' performance in class, I can identify and address their learning challenges.
7	I provide timely feedback to students to help them improve their learning and understanding.
8	After each lesson, I reflect on my teaching, identifying areas for improvement and planning future adjustments.
9	I seek guidance from my external mentor and use their feedback to continuously improve my teaching methods.
10	When faced with unexpected situations in the classroom, I have gained confidence through experience and can handle them more effectively.

Note: (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

Appendix C: Inquiry Stage Questionnaire

Purpose: To explore reflective practice, research orientation, and identity development during the Inquiry stage.

Instructions: Please indicate the extent to which you agree with the following statements based on your reflection and research activities.

Items	Questionnaire items	1	2	3	4	5
1	I regularly reflect on my teaching practices to find areas for improvement.					
2	I can identify specific issues in the classroom (such as student motivation or classroom management) and think about how to address them.					
3	I design small-scale research projects or action research to tackle real classroom challenges.					
4	In my reflections, I combine theoretical knowledge with practical teaching experience to deepen my understanding.					
5	I can clearly explain how my teaching ideas have gradually evolved and developed during the process of teaching practice, owing to various experiences in the classroom.					
6	During the research phase, I keep a teaching reflection journal to track my thoughts and progress.					
7	I actively seek feedback from others to help improve both my research and teaching.					
8	I share my research findings with mentors or peers and make improvements based on their feedback.					
9	I gain a clearer sense of my professional identity as a future English teacher.					
10	I am committed to continuous learning and improvement as an educator.					

Note: (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree).

Appendix D: Semi-Structured Interview Protocol

General Instructions:

Each interview contains three sections matching the Three-Practice Pathway. Interviewees are invited to offer specific examples and personal reflections. Extra follow-up questions will be used to dig deeper into their answers when needed.

Part 1: Observation Stage

Theme 1: Teacher Role Awareness

1. How did your understanding of the teacher's professional role change during the observation period?

2. What specific qualities or responsibilities of teachers stood out to you?

Theme 2: Observation Focus and Strategies

1. What aspects of classroom teaching or management did you pay most attention to during your observations?

2. Did you use any specific strategies to structure your observations? (e.g., note-taking frameworks, focus checklists)

Theme 3: Engagement and Challenges

1. How involved did you feel during the observation stage?

2. What difficulties did you encounter in making sense of classroom dynamics?

Part 2: Practicum Stage

Theme 1: Instructional Design and Delivery

1. How did you approach lesson planning during your Practicum?

2. Can you describe an instance where you adjusted your lesson plan during teaching? What prompted the change?

Theme 2: Classroom Management and Interaction

1. How did you manage student behavior and foster a positive classroom environment?

2. What challenges did you face in maintaining classroom engagement?

Theme 3: Assessment and Feedback

1. How did you evaluate student understanding during lessons?

2. What types of feedback (from mentors, peers, self-reflection) influenced your teaching most?

Part 3: Inquiry Stage

Theme 1: Reflective Practice

1. How has your ability to critically reflect on teaching evolved since starting your Practicum?

2. Can you describe a particular teaching incident that triggered deeper reflection or change?

Theme 2: Research Engagement

1. What classroom problems or questions motivated you to conduct small-scale research or inquiry?

2. How did you connect your research findings back to your teaching practice?

Theme 3: Professional Identity Formation

1. In what ways has your view of yourself as a future English teacher changed after completing the inquiry stage?

2. What factors (mentorship, peer collaboration, classroom experiences) contributed most to shaping your teacher identity?