

Co-planning, coaching, and clinical practice: leveraging the apprenticeship model in teacher residency seminars

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Abstract

Purpose – This descriptive case study examines how an apprenticeship-aligned teacher residency seminar supports teacher candidates' professional growth through co-planning, structured coaching, and reflective practice. The study investigates how routines such as the POP Cycle, walk-throughs, and collaborative goal-setting develop instructional clarity, differentiation, and culturally responsive pedagogy while strengthening reciprocal mentor–candidate learning within diverse school contexts.

Design/methodology/approach – Using a qualitative descriptive case study design, the research focuses on a university-led residency seminar embedded within a year-long clinical placement across three partner districts. Participants included 24 teacher candidates and 18 mentor teachers in five elementary schools. Data sources included POP Cycle documents, supervisor field notes, co-planning logs, goal-setting artifacts, and end-of-semester reflections. Thematic analysis was conducted collaboratively using inductive coding, triangulation across data types, and iterative consensus-building to enhance trustworthiness.

Findings – Findings show that structured co-planning, iterative feedback loops, and reflective routines contributed to growth in instructional planning, differentiation, assessment use, and culturally responsive teaching. Candidates reported increased confidence in classroom management and equity-driven instructional decision-making. Mentor teachers also described reciprocal learning that strengthened their own practice and reinforced a collaborative professional culture. Time constraints and variable communication across campuses emerged as persistent implementation challenges.

Practical implications – The study offers actionable guidance for embedding apprenticeship structures within residency programs, including the intentional use of coaching cycles, goal-setting templates, protected co-planning time, and mentor supports that promote scalable, equity-centered clinical preparation.

Originality/value – This study provides a context-specific illustration of how apprenticeship-based structures can bridge theory and practice within clinically rich preparation programs. It highlights the reciprocal and equity-oriented benefits of residency seminar design and offers a replicable framework for strengthening teacher development through structured, collaborative learning.

Keywords Teacher residency, Apprenticeship, Mentoring, Co-planning, Coaching, Teacher preparation, Teacher education

Paper type Case report

Teacher preparation remains a cornerstone of educational reform, equipping educators to navigate increasingly diverse and dynamic classrooms. Yet traditional programs, often weighted toward theory over application, have been critiqued for offering limited opportunities for authentic clinical practice. In response, teacher residency programs have redefined the preparation process through apprenticeship-based models that immerse candidates in extended, mentored classroom experiences.



At the heart of these programs lies the apprenticeship model, which immerses teacher candidates in year-long clinical experiences alongside experienced mentor teachers. This model replaces isolated theoretical instruction with practice-based learning that integrates professional goal-setting, co-planning, and iterative feedback cycles. Through immersive and reflective practices, the apprenticeship model enables candidates to acquire, refine, and apply pedagogical strategies in real-time classroom settings. The incorporation of structured debriefing, phased observation, and implementation cycles ensures that candidates can develop strategies within a supportive and adaptive framework.

To fully understand how teacher residency programs can support sustained professional growth, it is essential to examine the research that underpins this study's design. The following literature review explores key theoretical and empirical contributions related to apprenticeship learning, co-teaching and co-planning models, goal-setting frameworks, and the implementation of clinically rich teacher preparation programs. Together, these strands of research inform the structure and rationale for the residency seminar model analyzed in this study.

Literature review

Effective teacher preparation increasingly demands approaches that move beyond traditional, front-loaded coursework toward embedded, practice-based experiences that support novice teachers in developing instructional skill, professional identity, and contextual adaptability. Central to this shift is the integration of apprenticeship and co-teaching models that facilitate authentic engagement with the work of teaching. This literature review synthesizes research on apprenticeship learning, co-teaching and co-planning, professional goal-setting and feedback, and the structural challenges and affordances of implementing such models in residency-based programs. Together, these studies provide a foundation for understanding the theoretical and practical grounding of the descriptive case study, while also situating its unique contribution within a critical gap in the literature.

Apprenticeship models and situated learning

The apprenticeship model in teacher preparation is grounded in the theories of situated learning (Lave & Wenger, 1991) and cognitive apprenticeship (Collins, Brown, & Holum, 1991). These frameworks emphasize the importance of learning through participation in authentic activities, where pre-service teachers observe, practice, and reflect alongside mentor teachers in contextually rich environments. Mishra (2020) and de Bruin (2019) extend this model to teacher education, arguing that apprenticeship allows teacher candidates to internalize not only the technical aspects of teaching but also the tacit knowledge embedded in decision-making, relational dynamics, and classroom improvisation. Billett (2011) reinforces this notion by recognizing that guided participation in practice settings leads to deeper professional learning than abstract instruction alone. In other words, it's one thing to learn about pedagogy in the University classroom, but it's another thing entirely to put it into practice.

Recent expansions of apprenticeship models have embraced interdisciplinary and practice-based orientations, including the maker movement (Halverson & Peppler, 2018) and core reflection in co-teaching contexts (Guise, Habib, & Thiessen, 2023). These models frame the classroom as a dynamic space for inquiry, experimentation, and shared learning. Within residency programs, this translates into a structure where teacher candidates are not merely observing or replicating mentor practices but actively co-constructing knowledge and instructional routines alongside experienced teachers.

Co-teaching, co-planning, and co-reflection

Co-teaching, defined as two or more educators collaboratively delivering substantive instruction to a diverse group of students (Cook & Friend, 1995), has emerged as a critical

component of clinically rich teacher preparation. [Friend, Cook, Hurley-Chamberlain, and Shamberger \(2010\)](#) describe co-teaching as a model that, when implemented with fidelity, can support differentiated instruction, relational trust, and mutual professional growth. However, research consistently highlights challenges to successful implementation, including a lack of role clarity, insufficient co-planning time, and limited training in collaborative practices ([Murawski & Swanson, 2001](#); [McTigue, Solheim, & Walker, 2022](#)).

Recent studies underscore the potential of co-teaching to support reciprocal learning between mentor and teacher candidates, especially when structures are in place to facilitate co-planning and reflective dialogue ([Eshchar-Netz, 2020](#); [Kervinen, Rintakorpi, & Reunamo, 2022](#)). [Pratt, Imbody, Wolf, and Patterson \(2016\)](#) identify co-planning as the linchpin of effective co-teaching, arguing that shared planning time enables alignment of instructional goals, distribution of responsibilities, and real-time adjustment based on student needs. These findings align with [Guise et al. \(2023\)](#), who emphasize the importance of scheduled benchmarks for reflection and shared sense-making throughout the co-teaching process.

Goal-setting and feedback loops in professional learning

Despite the promise of co-teaching and residency-based preparation, research suggests that without intentional structures for professional goal-setting and feedback, opportunities for growth can remain diffuse or inconsistent ([Friend et al., 2010](#); [Villa, Thousand, & Nevin, 2013](#)). Goal-setting frameworks offer a means of focusing preservice learning around clear, achievable targets that are responsive to both teacher and student needs. Researchers ([Baker, Weisgrau, & Bristol Philyaw, 2022](#); [Criss, Konrad, Alber-Morgan, and Brock, 2024](#)) highlight the importance of context-sensitive, iterative goal-setting cycles that are embedded in authentic teaching experiences and reinforced through feedback and coaching. Intentionality is the backbone of these processes.

In a study of co-teaching in literacy education, [McTigue et al. \(2022\)](#) describe teacher candidates feeling as though they are “building the plane while flying it” (p. 187), pointing to the need for structured, supportive systems that scaffold professional growth. From the perspective of the university site coordinator, the POP (pre-conference, observation, post-conference) Cycle, as employed in this descriptive case study, offers such a structure. It formalizes the coaching process by embedding collaborative planning, live observation, and reflective dialogue into a goal-oriented cycle, thereby operationalizing many of the feedback mechanisms emphasized in the literature. This process is then supported by smaller informal observations, referred to as Walk-throughs, in which targeted coaching feedback is provided on the teacher candidate’s goals between formal observations. Most importantly, these structures are sustained through on-going, intentional co-planning and co-teaching between the teacher candidate and mentor teacher.

Programmatic structures and the implementation gap

While the value of co-teaching and apprenticeship models is widely acknowledged, relatively few studies describe how these models are implemented and sustained at scale across diverse school-university partnerships. [Vagi, Pivovarova, and Miedel Barnett \(2017\)](#) and [Goldhaber, Krieg, Naito, and Theobald \(2020\)](#) call attention to the variability in residency models, with program outcomes often contingent on site-specific factors such as mentor quality, time allocation, and faculty involvement. Moreover, research on program design and sustainability ([Guha, Hyler, & Darling-Hammond, 2016](#)) highlights the need for scalable structures that support consistent, high-quality clinical experiences.

This study addresses this gap by introducing a residency seminar model grounded in co-teaching practices, apprenticeship learning, and structured feedback cycles that anchor professional goal-setting. Implemented within a large urban teacher residency program, the model provides a scalable and replicable approach for preparing novice teachers across diverse

contexts while cultivating the reflective, collaborative learning culture identified in the literature as essential to sustained professional growth and effective teacher development.

Context of study

The (blinded) university's Educator Preparation Program (EPP), in collaboration with University-School Partnerships for the Renewal of Educator Preparation (US PREP), prepares diverse educators through a yearlong teacher residency emphasizing co-teaching and co-planning. Within this model, Mentor Teachers (MTs) and Teacher Candidates (TCs) collaboratively design lessons, analyze formative data, and align instruction to meet diverse learners' needs. Structured goal-setting, observation, and debriefing cycles reinforce reflective practice and position TCs as active agents in their professional growth.

This partnership's collaboration with multiple districts demonstrates the adaptability of the apprenticeship model across varied demographic and institutional contexts. By embedding these structures within the residency seminar, the EPP advances a scalable framework for linking theory and practice in contemporary teacher preparation.

Theoretical framework

This descriptive case study anchors itself in the apprenticeship model of teacher preparation, emphasizing experiential learning, immediate feedback, and iterative practice. Co-planning serves as a structured collaborative process between mentor teachers and teacher candidates, fostering the practical application of pedagogical strategies within authentic classroom environments.

This research explores the question: How does the apprenticeship model support the development of teacher candidates' professional competencies and reflective practices? Key elements of the apprenticeship model include:

- (1) Collaborative Expertise: Teacher candidates and mentor teachers co-develop lessons, implement co-teaching strategies, and assess instructional effectiveness.
- (2) Goal-Setting and Feedback Loops: Structured co-planning sessions facilitate actionable feedback and guide candidates in refining professional goals.
- (3) Continuous Improvement: Iterative reflection and data-driven planning ensure that instructional strategies evolve to meet the diverse needs of students.

Positioning these practices within a reflective teaching paradigm, the apprenticeship model enables teacher candidates to engage in inquiry cycles that critically analyze and refine instructional approaches. By incorporating adaptive learning frameworks, the model fosters real-time adjustments based on observational data and feedback, reinforcing its emphasis on dynamic professional learning.

By embedding these practices in diverse school contexts, the model also highlights its alignment with equity-centered pedagogy. Teacher Candidates actively engage in addressing systemic inequities by designing inclusive instructional practices, thereby strengthening their capacity to lead responsive classrooms.

Methodology

This descriptive case study was situated within a clinically rich, year-long residency program that places teacher candidates in partner schools four days per week. The seminar, which meets weekly on campus, is facilitated by university-based clinical faculty and is designed to support candidates' development of instructional skills, professional identity, and collaborative teaching practices. Core seminar components include the POP Cycle (pre-conference, observation, post-conference), collaborative goal-setting, and targeted feedback aligned with the Texas Teacher Evaluation and Support System (T-TESS) rubric.

Participants and setting

Participants included teacher candidates and mentor teachers from three local school districts that partnered with the Educator Preparation Program (EPP). These districts represented diverse educational environments, encompassing urban, suburban, and rural contexts. Teacher candidates participated in year-long residencies within these schools, allowing them to engage directly with students and instructional practices in real-time classroom settings. Mentor teachers were selected based on their expertise, experience, and ability to model effective teaching practices while supporting the professional growth of teacher candidates. Participants included 24 Teacher Candidates (TCs) and 18 Mentor Teachers (MTs) in five elementary schools across three partner districts. The schools involved in the study served diverse student populations, including significant proportions of multilingual learners and students from historically underserved communities. This diversity provided teacher candidates with opportunities to develop culturally responsive teaching strategies and address systemic inequities in education. Structured co-planning and observation sessions occurred within these settings, ensuring alignment with district standards and curriculum goals. To understand how candidates developed professionally within this setting, the following section outlines the study's data sources and analytical approach.

Research design

This study employed a descriptive case study design (Yin, 2018) to examine how a university-led residency seminar, grounded in apprenticeship principles, supported teacher candidate development. The case was bounded by the implementation of a single-semester seminar delivered across multiple partner campuses within a large urban teacher residency program. The purpose of the study was to document how structures such as the POP Cycle, co-planning, and goal-setting contributed to professional growth, instructional clarity, and equitable teaching practices among novice teachers.

Researcher positionality

The researchers served as university site coordinators and seminar facilitators within the teacher residency program. This dual role provided direct knowledge of program structures and participant experiences while also requiring reflexivity in interpretation. To mitigate bias, multiple data sources were triangulated, and ongoing reflective dialogue between the co-authors supported alignment between emerging interpretations and participant perspectives.

Delimitations

This study is delimited by its single-case, descriptive design situated within one university-led teacher residency seminar. Because the findings draw from a specific institutional partnership, district context, and cohort of TCs and MTs, the results are not intended to be generalized across all teacher preparation programs. Instead, the study provides a context-specific illustration of how apprenticeship-based structures, such as co-planning, goal-setting, and the POP Cycle, operate within a particular residency model. These delimitations frame the study's contributions as descriptive and illustrative rather than comparative or causal.

Leveraging observation and feedback loops

The seminar employs a phased structure to operationalize the apprenticeship model. In Phase 1, Teacher Candidates (TCs) observe Mentor Teachers (MTs) implementing strategies aligned with specific growth goals. TCs document their observations and engage in reflective debriefs to identify effective practices and areas for refinement. In Phase 2, TCs apply these strategies

while MTs observe and provide side-by-side coaching or whisper feedback as needed. This iterative structure exemplifies the model's emphasis on continuous improvement.

Structured observation phases also emphasize adaptability. TCs and MTs collaboratively adjust instructional strategies in response to immediate classroom dynamics, ensuring a responsive and student-centered learning environment. These iterative processes reinforce the model's focus on experiential learning and adaptive expertise.

Data sources and analysis

Data were collected from multiple sources embedded within the seminar experience. These included candidate-created artifacts (e.g., goal-setting documents, reflection journals, and self-assessments), University Supervisor field notes, and documentation from the POP Cycle (pre-conference planning forms, observation notes, and post-conference reflections). End-of-semester synthesis reflections and co-planning logs were also reviewed to capture longitudinal patterns in candidate thinking and growth.

A qualitative, thematic analysis approach was used to identify recurring patterns across participants and campuses. Data were first reviewed holistically to surface broad themes aligned with the seminar's stated goals, such as instructional clarity, collaboration, and culturally responsive practices. From there, key segments were coded inductively, allowing categories to emerge from the data while remaining anchored in the theoretical framework of cognitive apprenticeship and feedback loops. Triangulation across multiple data types and seminar sites increased trustworthiness and provided a nuanced understanding of candidate growth and seminar impact. Coding was conducted collaboratively by the two researchers using an inductive process. Preliminary codes were compared and refined through consensus to enhance reliability, and data were organized manually using shared spreadsheets and coded documents to identify and track emerging themes.

Findings

The findings from this descriptive case study illustrate how structured co-planning, feedback cycles, and reflective practice—anchored in an apprenticeship model—contributed to teacher candidates' professional growth. Analysis across artifacts, field notes, and POP Cycle documents revealed four recurring themes.

Growth in instructional planning and differentiation

Across goal-setting forms and post-conference reflections, teacher candidates demonstrated significant progress in designing, implementing, and adjusting instructional strategies. Co-planning sessions, facilitated by Mentor Teachers and University Supervisors, enabled candidates to refine lesson pacing, differentiate for diverse learners, and integrate formative assessments.

Co-planning is going well. After discussing and planning together, we divide parts of the lesson. My teacher candidate has been bringing new ideas to the table, and it's helping us differentiate more intentionally. - Mentor Teacher

This evidence of instructional adaptability suggests that candidates were not merely applying strategies but internalizing decision-making processes that align with cognitive apprenticeship theory.

Feedback loops and structured reflection supported a growth mindset

Feedback provided through the POP Cycle was consistently cited as essential to candidate learning. Reflection documents revealed that candidates used supervisor and mentor input to assess lesson effectiveness and identify the next steps.

I need to command the room more and use my teacher voice consistently, but my MT's feedback helped me break that down into steps I can work on. – Teacher Candidate

This iterative structure—plan, act, reflect—cultivated a growth mindset and allowed candidates to approach mistakes as learning opportunities. The integration of theory and practice became more evident as candidates began to anticipate and address classroom challenges independently.

Reciprocal learning strengthened professional community

The residency seminar model fostered not only candidate development but also professional renewal among mentor teachers. In feedback logs and field notes, mentors frequently acknowledged how the collaboration enhanced their own instructional practice.

[The teacher candidate] is confident with the students and models well. We're having rich conversations about small group instruction and modifying activities - I have grown from this too. - Mentor Teacher

This reciprocal learning dynamic reinforced a sense of shared responsibility for student success and contributed to a stronger professional community within partner schools.

Increased confidence in culturally responsive teaching. Multiple candidates set and refined goals related to culturally responsive pedagogy, particularly in addressing multilingual learners and inclusive participation strategies. These themes appeared frequently in co-planning documents and reflective writings.

The students in my class are being supported by both adults. My teacher candidate checks for understanding and gives multiple entry points into the lesson - it's creating space for all students. - Mentor Teacher

By explicitly addressing equity during planning and reflection, candidates demonstrated growing competence in tailoring instruction to diverse learners and creating inclusive classroom environments.

These findings reinforce research from Professional Development School (PDS) models, which emphasize clinically rich preparation, shared responsibility, and collaborative structures that strengthen coherence across school–university partnerships (Darling-Hammond, 1994; Clark, Tinni, & Angel, 2023), core principles that align closely with the apprenticeship-based residency structures examined in this study.

Implications for teacher residencies

This study offers several practical implications for teacher residency programs seeking to strengthen clinical preparation through intentional structures grounded in apprenticeship learning.

(1) Integrate Structured Coaching Cycles

Residency programs should embed structured cycles of planning, observation, and feedback—such as the POP Cycle—into both coursework and fieldwork. These cycles promote developmental coaching by providing a consistent structure for goal-setting, actionable feedback, and reflective practice. University Supervisors and Mentor Teachers need training and time to engage meaningfully in these cycles, making institutional support essential. Given the time pressures of P–12 settings, residency designers should explore ways to protect shared planning time and use flexible scheduling to enable reflection and observation cycles.

(2) Prioritize Co-Planning as Professional Learning

Co-planning should be treated not just as logistical prep but as a form of instructional inquiry. Allocating regular time for teacher candidates and mentors to co-plan reinforces habits of

collaboration, elevates lesson quality, and supports candidates in learning how to make instructional decisions in context. When treated as a meaningful professional development practice, co-planning also becomes a space to foreground equity goals and adapt lessons to meet diverse student needs.

(3) Use Goal-Setting to Anchor Growth

Professional goal-setting, when tied to observable practice and student outcomes, gives candidates a clear path for growth. Programs should integrate goal-setting templates and reflection prompts that are aligned with relevant teaching frameworks (e.g., T-TESS) and support individualized teacher development. Structured coaching cycles provide an ideal mechanism for revisiting and revising goals in response to data and feedback.

(4) Foster Reciprocal Mentor-Candidate Relationships

Mentor teachers are not just modeling best practice—they are learning alongside candidates. Programs should recognize and nurture this reciprocal dynamic by building in opportunities for mentor feedback, reflection, and shared leadership. However, many mentors benefit from additional support in transitioning from the role of expert model to that of instructional coach. Providing mentors with training, tools, and ongoing support in this area strengthens their impact on candidate development and deepens the collaborative culture of partner schools.

(5) Design for Scalability and Flexibility

While deeply embedded residency experiences are ideal, they must also be scalable. The seminar model described in this study offers a portable framework that can be adapted to diverse placement sites, content areas, and mentor styles. To ensure implementation fidelity across campuses, programs should also consider developing shared tools, communication protocols, and expectations to maintain alignment across school-university partnerships.

Discussion

The findings from this descriptive case study highlight how apprenticeship-based structures, particularly co-planning, feedback cycles, and goal-setting routines, shaped TC development within the residency seminar. Interpreting these descriptive patterns alongside the study's theoretical grounding offers several insights into how such structures support novice teachers.

First, the growth documented in instructional planning and differentiation aligns with cognitive apprenticeship theory, which emphasizes modeling, guided practice, and gradual release (Collins *et al.*, 1991). The POP Cycle and co-planning routines created repeated opportunities for TCs to observe expert practice, rehearse instructional moves, and refine them with targeted feedback, supporting the development of adaptive expertise.

Second, the prominence of structured feedback and reflection mirrors the literature on guided participation (Billett, 2011; de Bruin, 2019). TCs repeatedly described feedback as actionable, allowing them to translate broad instructional goals into concrete adjustments. This reflects prior scholarship describing the importance of making thinking visible and breaking complex teaching practices into developmental steps.

The reciprocal learning described by MTs further illustrates the collaborative potential of co-teaching models. Consistent with Eshchar-Netz (2020) and Friend *et al.* (2010), MTs reported professional renewal through co-planning and shared instructional decision-making. These dynamics demonstrate that apprenticeship-based structures can benefit both novice and experienced educators.

The emphasis on culturally responsive teaching across artifacts also reflects the increasing need for equity-centered practice in teacher preparation. As TCs applied varied participation structures and adjusted lessons for multilingual learners, they demonstrated early proficiency

in aligning instructional decisions with student diversity, echoing [Criss et al. \(2024\)](#) and [Villa et al. \(2013\)](#).

At the same time, the seminar's implementation revealed persistent challenges. Time constraints, particularly limited shared planning time, posed barriers to consistent co-planning and reflection. Communication across multiple campuses also varied, complicating alignment of expectations among TCs, MTs, and university supervisors. These constraints underscore the need for structural supports and protected time when scaling residency models.

Together, these interpretations suggest that apprenticeship-based structures can meaningfully bridge theory and practice when supported by intentional design, clear communication, and consistent coaching routines. The seminar model demonstrates promise for supporting novice teachers' development of reflective, equity-centered instructional practice within clinically rich preparation contexts.

Conclusion

This study illustrates how a residency seminar grounded in apprenticeship theory, structured coaching cycles, and collaborative planning can support meaningful growth for teacher candidates. By embedding the POP Cycle within a university-led seminar, the model provided teacher candidates with repeated opportunities to plan, teach, reflect, and revise, all within a supportive, feedback-rich environment.

Findings highlight growth not only in instructional clarity and reflective practice, but also in culturally responsive pedagogy and professional confidence. Mentor Teachers also reported reciprocal benefits, suggesting that such models can strengthen the broader professional community within partner schools.

While implementation challenges such as time constraints and communication across sites surfaced, the model remained flexible and impactful. These insights underscore the importance of intentional design and clear structures when scaling clinically rich preparation experiences.

Future research might examine how this model adapts across content areas, certification pathways, or program contexts. As teacher preparation evolves, this residency seminar offers a sustainable approach to bridging theory and practice through authentic, collaborative engagement.

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