Introduction / Problem

Teacher candidates frequently approach lesson planning as a procedural task rather than an act of instructional reasoning (Cevikbas & Kaiser, 2023; Lammert, 2025).

Despite expectations from:

- InTASC
- Danielson Framework
- Universal Design for Learning
- Backward Design



Candidates often struggle to:

- Justify instructional decisions
- Apply research meaningfully
- Reflect on student learning (Shih, 2024)

There is a need for tools that make pedagogical reasoning explicit and visible.

Purpose & Research Questions

Purpose

To examine how teacher candidates use a research-embedded lesson planning template to develop:

- Instructional reasoning
- Reflective practice
- Equity-oriented planning
- Professional identity



Research Questions

1. How do candidates justify instructional decisions using “Plan + Why”?
2. How do they connect research to practice?
3. How does reflection evolve over time?
4. How is equity enacted in planning?
5. How does the template shape identity and confidence?

Methods

Design: Basic Interpretive Qualitative Study (Merriam & Tisdell, 2016)

Participants: 15 student teachers (K–12 placements)

Data Sources:

- Lesson plans (draft + final)
- Written reflections (pre/post teaching)
- Optional interviews
- Cooperating teacher feedback



Analysis: Reflexive Thematic Analysis (Braun & Clarke, 2021)

Preliminary Findings

The template makes instructional reasoning visible and structured, but also introduces cognitive complexity for novices.



Theme 1: Reasoning is Prompt-Dependent

- Strongest in “Why/Research Link” sections
- Weaker where justification is not explicitly required

Candidates reason when prompted to do so (Supports Lammert, 2025)



Theme 2: Research is Referenced More Than Used

- Frequent citation of frameworks (UDL, CRP, UbD)
- Often generalized rather than applied

Indicates surface-level integration of theory (Shih, 2024)



Theme 3: Alignment Improves with Structure

- Clear connections between:
  - Learning goals
  - Assessment
  - Instruction

Template supports backward design thinking (Wiggins & McTighe, 2005)



Theme 4: Equity is Present but Not Yet Generative

- UDL, differentiation, and CRP included
- Often treated as add-ons

Equity is visible, but not yet driving design decisions (Paris & Alim, 2017; CAST, 2024)



Theme 5: Student Thinking is Anticipated but Underused

- Misconceptions identified
- Limited evidence of:
  - Instruction shaped by student ideas
  - Responsive teaching

Shift toward student-centered reasoning is emerging (Michaels et al., 2010)



Theme 6: Cognitive Load Shapes Template Use

- Template promotes deep thinking
- But initially:
  - Overwhelming
  - Difficult to complete

Scaffold is both a support and a barrier (Merriam & Tisdell, 2016)

Developmental Trajectory

Early Use

- Procedural completion
- Surface-level reasoning
- Weak alignment
- Equity as checklist



With Support & Iteration

- Increased justification
- Stronger alignment
- More intentional equity planning
- Emerging reflective practice

Aligned with novice-to-expert development in teaching practice (Cevikbas & Kaiser, 2023).

Discussion / Implications

For Teacher Education:

- Templates can make invisible thinking visible
- Explicit justification prompts are critical (Lammert, 2025)
- Candidates need:
  - Modeling
  - Feedback
  - Iterative use (Merriam & Tisdell, 2016)



Design Implications:

- Balance structure + usability
- Reduce cognitive overload
- Scaffold progression over time

Conclusion

Research-embedded lesson planning templates show strong potential to:

Support instructional reasoning
Bridge research and practice
Promote reflective teaching



However:

Effectiveness depends on scaffolding, revision, and repeated use (Braun & Clarke, 2021).

In Progress / Next Steps

- Analyze full dataset (lesson plans + reflections)
- Examine growth over time
- Compare early vs. revised template use
- Incorporate interview data



Making Instructional Reasoning Visible: Teacher Candidates’ Use of a Research-Embedded Lesson Planning Template

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