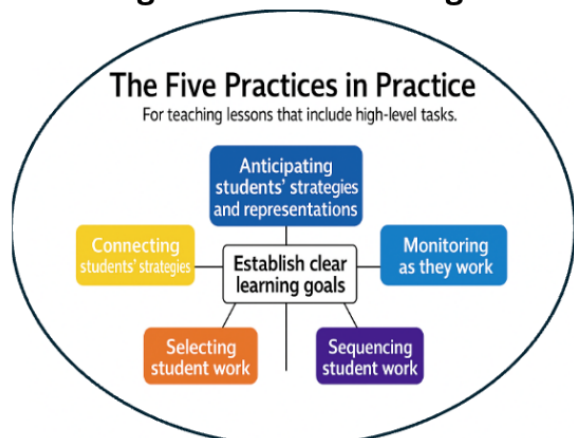


Using the Colleague AI Lesson Plan Platform to Support Ambitious Math Instruction

#2300291: An AI-Enhanced Colleague for Teachers: Developing and Studying an Innovative Platform for Efficient, Inclusive Middle-Grade Mathematics Lesson Planning

Using AI in an EPP setting



- Introducing the Five Practice Model (Smith, & Bill, & Sherin (2019).
- Pedagogy course before student teaching
- *How does the Colleague AI tool support the planning of a Five mathematics lesson?*

- Challenges writing lesson goals.
- Confusion with learning targets, learning goals, and objectives.

- Practicing writing lesson goals.
- Differentiating learning goals, learning targets, and objectives.
- Group discussions.

The Lesson planning journey (3rd Round)

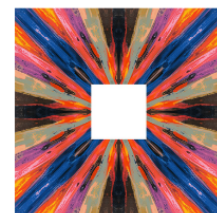
1st Lesson :
Group project
(No AI)

Final Lesson
Five practice
lesson using AI

Emphasis:
Technology &
Joy

Focus: Developing Learning Goals (*Sample work*)

Students will understand that discounts and taxes represent proportional relationships where percentages create constant multiplicative factors, and they will apply this understanding to strategically solve multistep problems involving sequential percentage calculations (discount then tax) within real-world constraints, using both forward and backward reasoning to make decisions and justify their solutions.



- Students will accurately calculate sale prices using proportional reasoning.
- Students will verify proportional relationships through multiple representations.

Progress with AI Tool

1 FIRST ROUND



Looked at Magic School AI resource then introduced Colleague AI (comparison)

2 SECOND ROUND



Survey to find out PSTs' views around using AI use. Required to share prompts used as they planned the final lesson.

3 THIRD ROUND



Grading rubric included points for uploading prompts with the lesson plan

Successes

- Stronger connections with Mathematics knowledge for teaching.
- Clearer distinction between: Learning targets, learning goals, objectives.
- Companion for modifying tasks from scripted curriculum during practicum and student teaching.

Future Directions

- Building a shared understanding of AI use in higher education.
- Analyzing AI outputs and prompting.