Poster Presentation Dialogue – IUT Conference

Opening (20–30 seconds)
Hi—thanks for stopping by. This poster looks at how student-created artifacts—things students design, build, and keep—can do more than support active learning. Specifically, we explored how artifacts can anchor peer interaction and build classroom community, not just reinforce technical skills. The work comes from several manufacturing and engineering technology courses where instruction evolved from lecture, to demonstration, to student-produced artifacts.

Framing the Problem (30 seconds)
Active learning strategies like peer instruction and group discussion are widely used, but they don't always lead to sustained connection between students. What we wanted to understand was: When students have a tangible artifact in front of them, does that change how they talk with each other, how they reflect on learning, and how they see themselves as learners or future professionals?

What We Did (30–45 seconds)
We examined three courses over a three-semester sequence. Instruction progressed from lecture-only formats, to live demonstrations, and finally to student-produced take-home artifacts such as CNC parts, routed components, and robotic weldments. Data included quantitative survey measures and qualitative instructor interviews.

Key Findings (45–60 seconds)
Quantitatively, we did not observe statistically significant shifts in reported interest levels. However, student engagement increased, reflected by higher participation and survey response rates once artifacts were introduced. Qualitatively, artifacts became conversation starters—supporting peer explanation, informal teaching, and reflective dialogue. Career interest was linked more strongly to the process of making than the finished product.

Artifacts and Community (30–45 seconds)
Artifacts functioned as shared reference points. Students used them to compare approaches, critique decisions, and normalize mistakes. This shifted the classroom culture toward collective problem-solving and peer-supported learning.

Barriers and Practical Takeaways (30–45 seconds)
Common challenges included time constraints, uneven participation, grading concerns, and resource limitations. Effective strategies included scaffolded milestones, structured peer feedback, and reflection prompts that emphasized learning over polish. Intentional alignment between artifacts and learning objectives was critical.

Closing (15–20 seconds)
This work suggests that artifact-centered active learning supports not only understanding, but also confidence, identity formation, and classroom community. I'd be happy to hear how active learning is working in your teaching context.