

## REALLY GOOD STUFF

# Empowering educators to create AI-based pedagogical apps

## 1 | WHAT PROBLEM WERE ADDRESSED?

Many educators are interested in building AI-based tools but often encounter barriers. While there is an expectation to innovate, limited technical expertise, constrained funding and time pressures leave little capacity to engage with the development processes. Time constraints leave little bandwidth for learning development processes. Although large language models are increasingly accessible, most 'no code' platforms remain unintuitive for non-technical users. This forces educators to rely on expensive external vendors with lengthy procurement processes, creating a gap between their creative vision for AI-enhanced learning.

## 2 | WHAT WAS TRIED?

To address these challenges, we introduced a 1-day *Vibe Coding* workshop. *Vibe Coding* is a method that uses conversational language to create simple applications.<sup>1</sup> The full-day workshop was led by six facilitators and attended by 18 participants from diverse health care professional backgrounds with varying levels of technical experience. Facilitators were clinical educators or programme administrators: Two knew basic coding, and the rest had no coding background but were experienced *vibe coders*. Course enrollment included 1-month access to Claude Pro and Replit Core (both USD 20 per participant), which allowed learners to keep practicing and innovating beyond the workshop.

The session followed a challenge-based, scaffolded structure guided by a gradual release of responsibility. In the morning, participants used Claude Artefacts (a *Vibe Coding* workspace that helps translate prompts into runnable outputs). Conversational prompts were used to generate code snippets, supported by focused mini-lessons on specificity, context and iterative refinement. Immediate previews and small-group coaching built early confidence and encouraged experimentation.

In the afternoon, participants transitioned to Replit, an advanced web-based *Vibe Coding* platform. They completed tasks involving basic authentication and app deployment. The sequence progressed from guided tasks with feedback to more complex challenges requiring transfer of learning. Guardrails such as version rollbacks and security checks provided a safe and supportive environment for experimentation.

Pedagogical principles remained central throughout. We structured the workshop to progress through Kern's six steps: from problem identification to developing educational strategies. Participants mapped each feature to learning objectives aligned with Bloom's Taxonomy and Miller's Pyramid.

## 3 | WHAT LESSONS WERE LEARNED?

All participants successfully developed functional educational applications within the day. Example outputs included an AI-assisted plain-language rewriter for clinical communication and a simulated-patient language-practice module with immediate AI-generated feedback. This rapid prototyping approach significantly reduced barriers to educational technology development, enabling educators to test and refine pedagogical concepts without external funding or lengthy procurement processes.

Participant confidence in application development increased substantially, with self-rated competency scores rising from 3.3 to 4.2 out of 5 ( $n = 11$ ), indicating significant improvement in perceived technical capability. Initial concerns regarding development complexity were addressed through structured guidance and practical resource provision.

*Vibe Coding*, supplemented by technical support and cost-effective development assistance, establishes immediate iterative processes that allow educators to validate pedagogical concepts before pursuing major funding or institutional approval, providing a sustainable framework for testing innovations and building strong cases for full-scale development.

In conclusion, structured support enables clinical educators to become effective creators of pedagogically grounded educational technology, driving innovation from those who best understand learning needs.

## DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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**REFERENCE**

1. Chow M, Ng O. From technology adopters to creators: leveraging AI-assisted vibe coding to transform clinical teaching and learning. *Med Teach*. 2025;1-3. doi:[10.1080/0142159X.2025.2488353](https://doi.org/10.1080/0142159X.2025.2488353)

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