

## Methods

Two scenarios were authored entirely by a **human educator**, and two were **generated using AI assistance**, with no post-generation editing.

We then used 2 scenarios on a cohort of **62 ITU nurses** - Anaphylaxis (human), Asthma (AI).

We used **ChatGPT 4** to generate the AI scenarios, and fed it questions aligning to a simulation template commonly used within the department.

Feedback was collected through **post-session questionnaires and open group discussions**, with thematic analysis used to compare perceptions of scenario authenticity and clinical educational value.

## Learning points

**AI** can be considered **as good as human educators** when designing clinical simulation scenarios, and expansion of its use as an **assistive tool** should be considered.

Post-generation editing could be used to **enhance** the scenario and correct any errors.



# I'm afraid I can do that: using AI in simulation creation

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## Background

**Artificial intelligence (AI)** is increasingly integrated into healthcare and medical education<sup>1,2</sup>, yet its practical application in simulation-based learning remains **underexplored**. The construction of realistic, pedagogically sound scenarios is time-consuming and often reliant on expert educators. With recent advances in the artificial intelligence technology, there is potential for AI to support or streamline scenario creation. However, the pedagogical quality and learner reception of AI-generated content require evaluation<sup>3</sup>. The question posed - can **learners discern** whether a simulation was **designed** by an AI or a human being?

## Outcomes

Did you feel one scenario was more believable than the other?

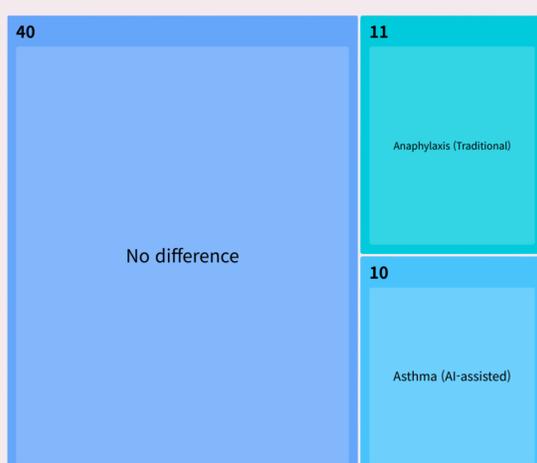


Figure 1. Learns' perception on the believability of scenarios

66% of learners reported **no differences in believability** of scenarios (figure 1), with equitable numbers reporting differences for AI and traditional (16% and 18% respectively).

Qualitatively, learners picked up on **subtle differences in clinical depth and nuance**, and this did challenge their immersion in the case.

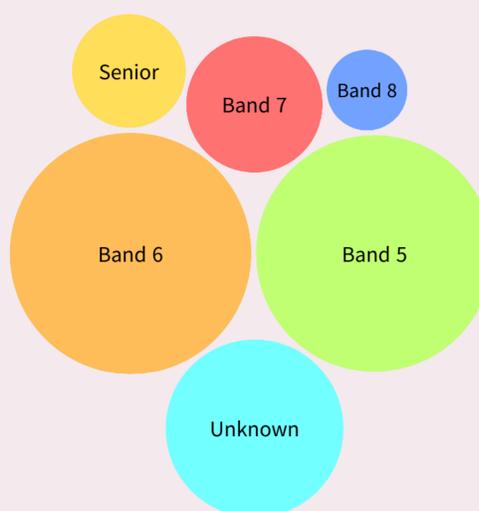


Figure 4. Grades distribution of learners (ITU nurses)

72% learners answered **'no difference'** to question of if either of the scenarios were more **applicable** for their clinical setting. 15% thought traditional method was more applicable for them, and 13% believed the AI-assisted scenario was.

Did you feel one scenario covered the learning points better than the other?



Figure 2. Learners' perception on the learning experiences of scenarios

Did you feel one scenario was more applicable to you than the other?

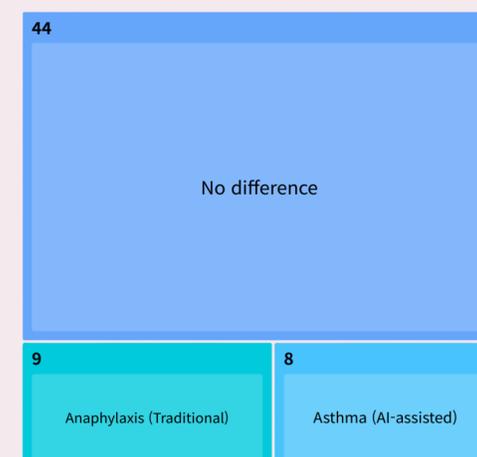


Figure 3. Learns' perception on the applicability to clinical needs

1. Davenport T, Kalakota R. The potential for artificial intelligence in healthcare. *Future Healthc J.* 2019 Jun;6(2):94-8. doi:10.7861/futurehosp.6-2-94.

2. Wartman, S. A., & Combs, C. D. (2023). Artificial intelligence and the future of medical education. *Academic Medicine*, 98(1), 20-26. <https://doi.org/10.1097/ACM.0000000000004823>

3. Chan KS, Zary N. Applications and challenges of implementing artificial intelligence in medical education: integrative review. *JMIR Med Educ.* 2019;5(1):e13930. doi:10.2196/13930.