

A Novel Application of AI in DPT Education: Enhancing Clinical Reasoning in Neuroscience

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Purpose

The purpose of this project was to explore Doctor of Physical Therapy (DPT) students' perceptions of learning with an Artificial Intelligence (AI) integrated problem-based activity in a Neuroscience course

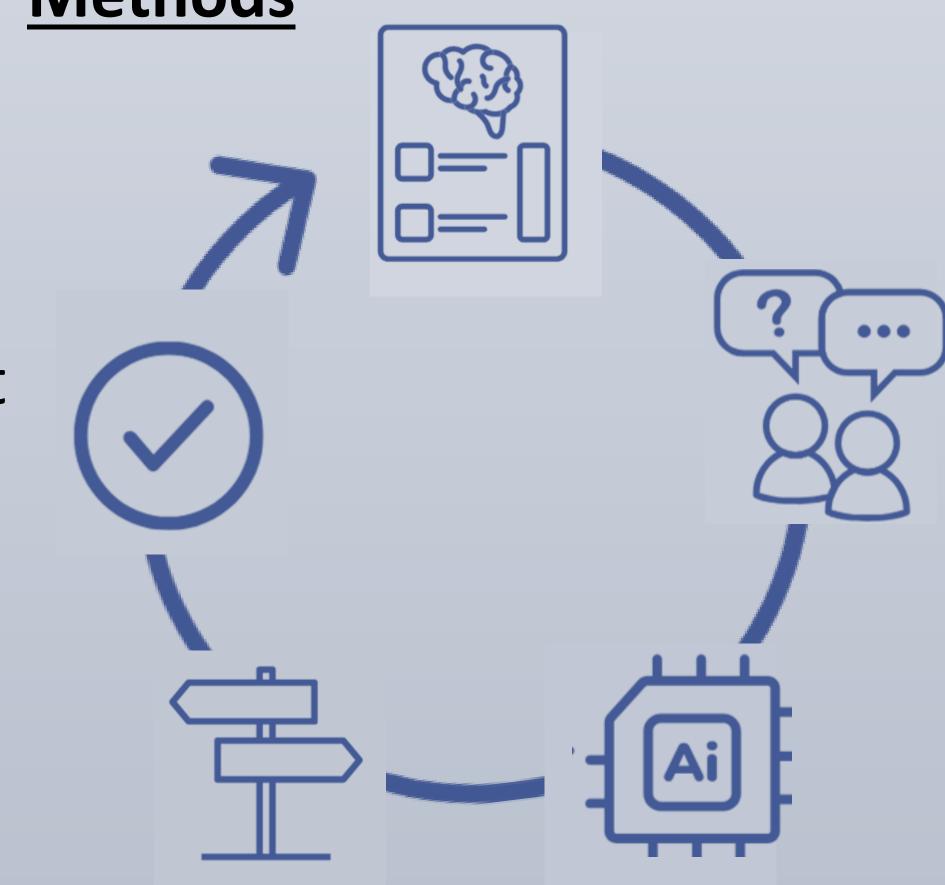
Available Knowledge & Rationale

- Clinical reasoning is a core skill for DPT students¹
- Problem-based learning fosters clinical reasoning^{1,2}
- Al is novel contributor to healthcare workflow^{3,4}

How can healthcare educators ethically embrace AI as a healthcare tool while fostering clinical reasoning?

<u>Methods</u>

 A problem-based learning activity was transformed to incorporate student discernment between correct and incorrect Algenerated responses



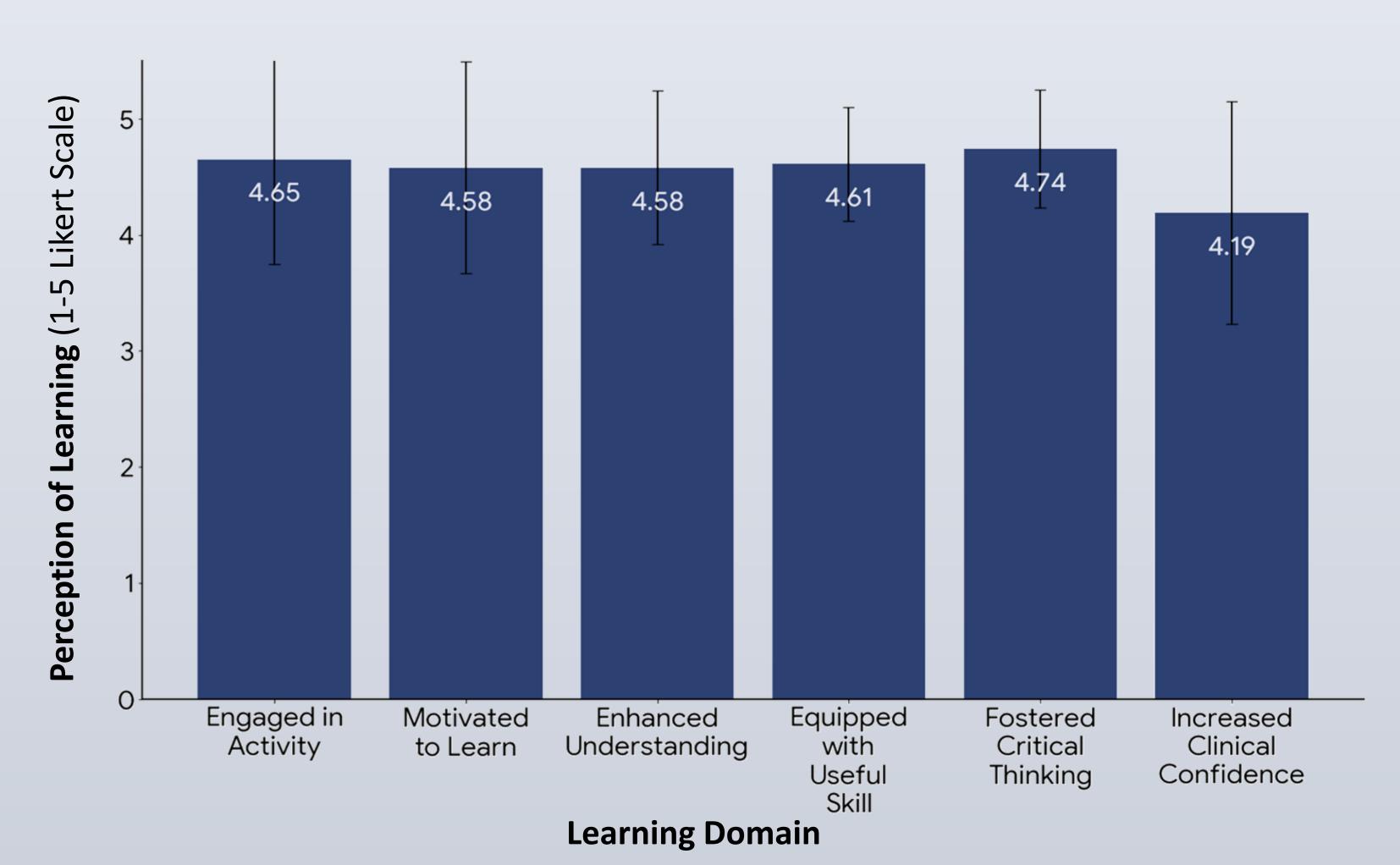
 An optional, anonymous 7-question Likert-scale survey based on the Kirkpatrick Model assessed student perceptions of learning and Al⁴

Data Analysis

Descriptive analysis was performed on student responses (n = 31)

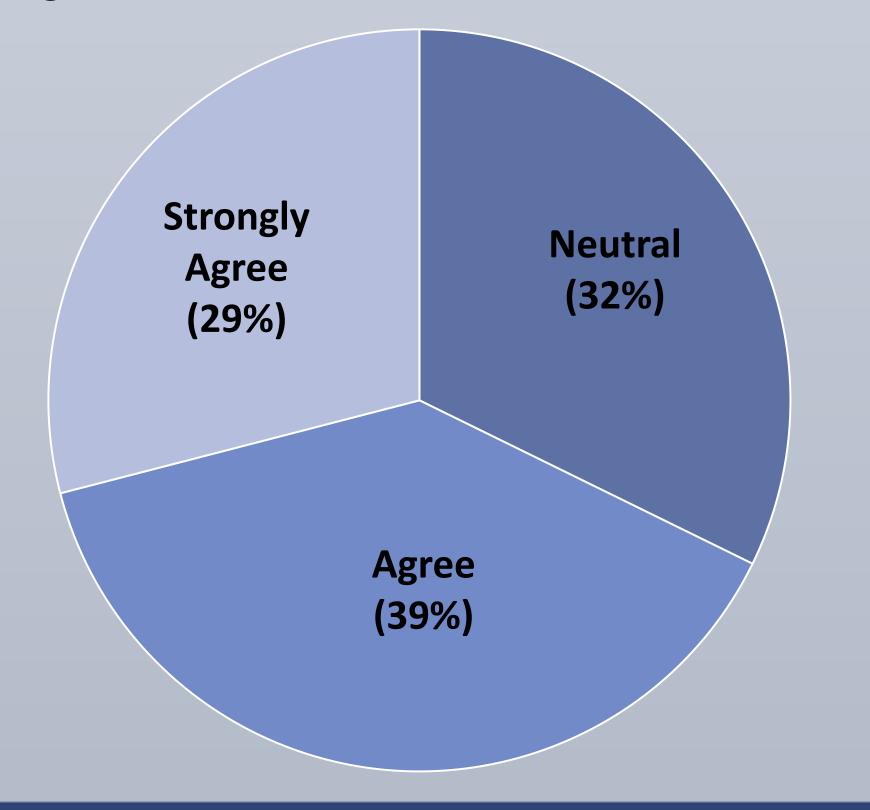
Results

Student Perception of the AI Learning Activity



Student Beliefs About AI in DPT Education

Statement: Students should be exposed to AI in an academic setting during their DPT education



Discussion

- Survey results from the AI-integrated problembased activity indicated high value perception for learning across all the assessed domains
- A majority of DPT students believe AI should be integrated into their graduate education

Conclusions

Integrating AI into a case-based activity to cultivate clinical reasoning is a novel, feasible pedagogical strategy to enhance DPT student learning in applied Neuroscience.

- Healthcare educators should consider incorporating similar AI-integrated methodologies to develop adaptable and discerning practitioners for evolving clinical workflows
- Additional innovative pedagogical applications of Al in healthcare education remain to be explored⁵
- Future large studies are needed among variable healthcare learner groups and learning subjects⁵

References & Contact Information

