Exploring Undergraduate Students' Perceptions of AI vs. Human Scoring and Feedback

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INTRODUCTION

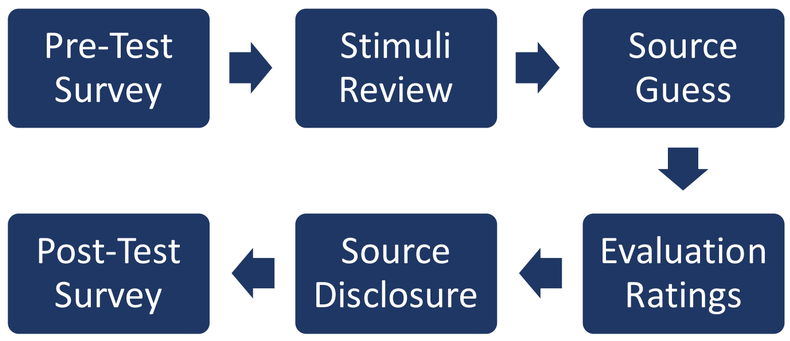
- Artificial intelligence (AI)-based assessment offers scalable solutions but raises concerns about reliability, fairness, and trust.
- Most research focuses on AI performance, not student perceptions. Understanding how students interpret AI evaluation is essential because learning outcomes depend on how feedback is received, processed, and acted upon.

RESEARCH QUESTIONS

1. Can students distinguish AI-generated from human-generated scoring and feedback?
2. How do grading type (AI vs. human) and source recognition impact students' perceptions?
3. How do students' perceptions change after the source is disclosed?
4. What individual factors, including comfort with technology, AI familiarity, and frequency of AI use, predict attitudes toward AI scoring and feedback?

METHODS

Participants: 159 undergraduate students from a Canadian university



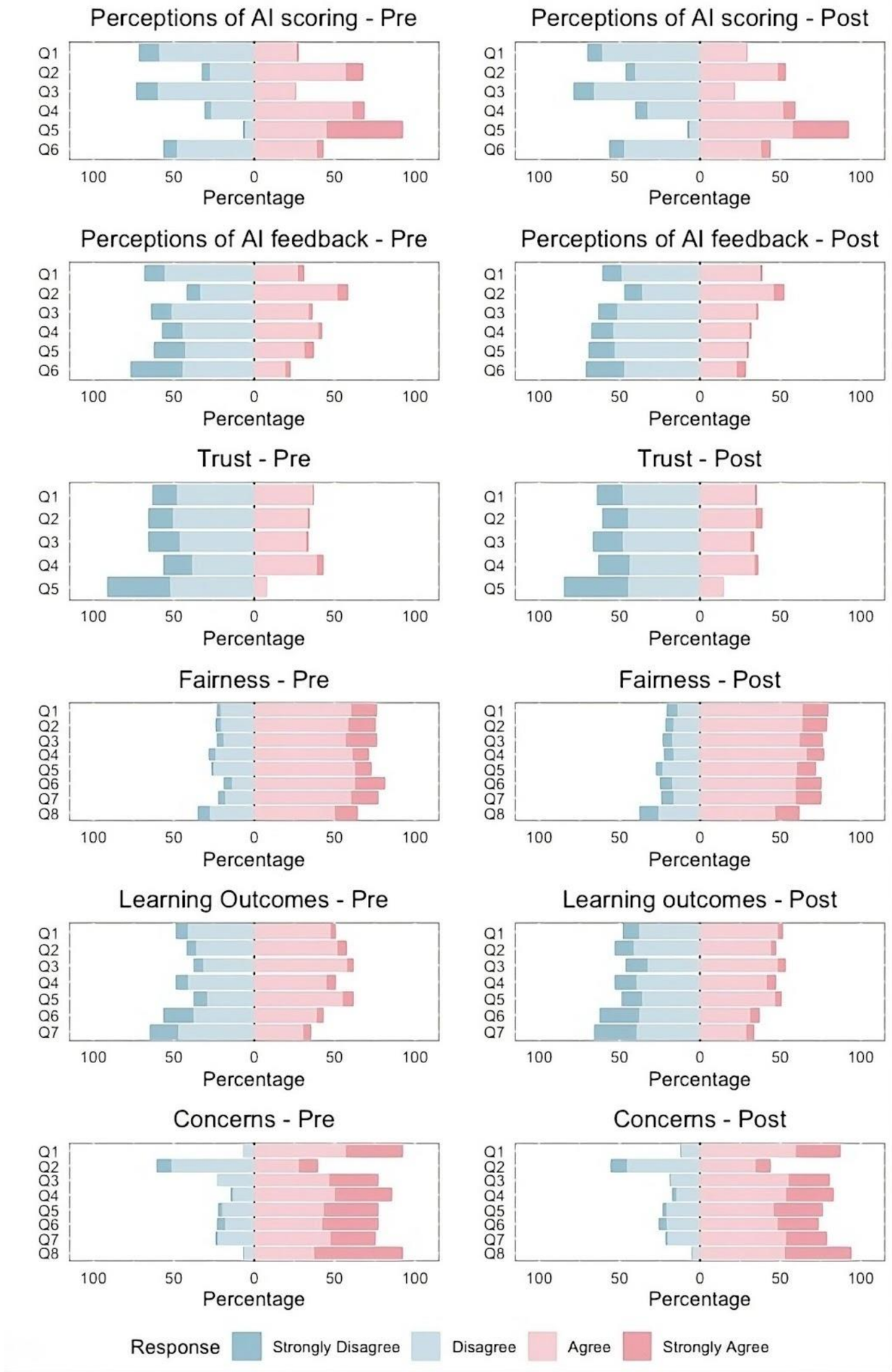
DISCUSSION

- Students' ability to identify AI is inconsistent, and misattribution affects trust and engagement, highlighting cognitive bias and algorithm aversion.
- Human feedback is preferred for subjective evaluation, reinforcing the psychological value of personalized feedback in learning.
- Comfort and familiarity with technology shape perceptions, emphasizing the role of digital literacy in educational settings.
- Thoughtful AI integration can support learning when paired with human feedback and transparency, bridging AI innovation with pedagogical principles.

Student perceptions of AI scoring and feedback are nuanced and shaped by disclosure, prior experience, and familiarity with technology.

RESULTS

- Students struggled to distinguish AI vs. human evaluation with accuracy often close to chance.
- Human grading was rated significantly higher on accuracy, fairness, usefulness, and appropriateness for learning.
- After disclosure of the source, students' ratings of AI scoring decreased, even when their initial evaluations were positive, while feedback was less affected.
- Students who use AI frequently tended to rate AI feedback more positively overall.
- Students with lower technology comfort rated fairness and trust significantly lower for AI systems.



Distribution of Responses for Each Scale Across Pre-Test and Post-Test Surveys

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