ChatGPT Validation of an Anti-Racism in Medical Education Questionnaire

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Background

Survey creation, validation, and item optimization is challenging. AI can help! This study used ChatGPT to validate and improve a bias-related medical learning environment survey.

The survey was adapted from the Johns Hopkins Learning Environment Scale (JHLES) and was edited by a panel of experts. Then researchers queried ChatGPT versions 3.5 and 4.0 with a series of prompts.

AI swiftly identified survey weaknesses and made suggestions for improvement. Compared with the student focus group results, it is a cost-effective and quick addition to a survey developer's toolbox.

Methods

Learning Environment Survey Creation

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Validation with ChatGPT version 3.5 and version 4.0

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Validation with Student focus group

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Comparison of results

Sample Learning Environment Survey Items

1. My school teaches basic and clinical sciences in an unbiased way.
2. My school provides equitable opportunities to excel for students of all racial backgrounds.
3. There are people at my school who will serve as my allies if I experience racial bias.

ChatGPT Input Process

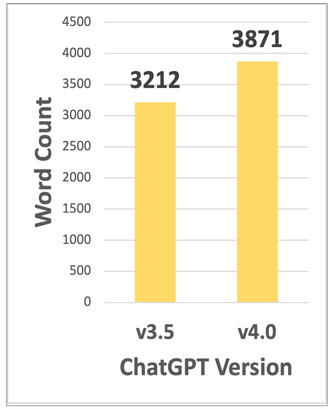
Input Survey Questions and Context

Input ChatGPT Prompts

1. Summarize the goals of the survey
2. Identify phrases in the survey that are ambiguous
3. Identify ways to clarify those unclear phrases
4. Incorporate suggestions into a new question

Results

Word Count of ChatGPT Outputs



ChatGPT v3.5 and v4.0 Comparison of Item Recommendations

Original Q3: There are people at my school who will serve as my allies if I experience racial bias	
Version 3.5	Version 4.0
"To what extent do you believe there are people at my school, including peers, faculty, staff, or administration, who would serve as allies and provide support if you experience racial bias? Please provide specific examples or experiences to support your response."	"There are people at my school who would actively support me and challenge racial bias if I experience it."

Discussion

	ChatGPT	Target Group
PROS	• Quick • In-depth • Extensive suggestions • Low cost • Accessible • Large volumes	• Context expert • Familiarity with terminology • Minimize bias

	ChatGPT	Target Group
CONS	• Time-consuming • Lack of context • Lack of trans-parency	• Time constraints • No survey expertise • Costs • Less attention to detail

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