

Pharmacist Engagement and Perceptions of a Virtual Continuing Pharmacy Educational Activity

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Background

The COVID-19 pandemic triggered a shift from in-person to virtual delivery of educational activities. More specifically, continuing education providers stopped in-person events during the pandemic and adopted virtual programming and on-demand activities.¹ Likewise, as an accredited provider of continuing pharmacy education (CPE), the Pharmacy Continuing Education Program (PCEP) transitioned all in-person CPE to a virtual or hybrid (i.e., in-person and virtual learners) format. While this shift has increased accessibility, it is unclear whether learner engagement and overall learning is at least equal to that of in-person events.

An engaged learner is involved behaviorally, emotionally, and intellectually.² In 2021, Dickinson et al. published a tool called the virtual in-class engagement measure (VIEM) to assess learner engagement in online surgical education events.³ This tool is a modification of the STROBE in class engagement measure which has been used to assess the engagement of healthcare professionals during in-person learning events.⁴ The VIEM tool involves the collection of learner and instructor behaviors by trained observers using a behavioral scale in combination with learner self-assessment of engagement.

Primary Aim

The primary objective of this study was to determine the feasibility of a modified tool for measuring learner engagement in the virtual delivery of a CPE activity.

Methods

This study was approved by the University of Texas MD Anderson Cancer Center (MD Anderson) Institutional Review Board (IRB).

Eligibility: Pharmacist preceptors employed by the Division of Pharmacy at MD Anderson with five (5) or more years of experience as a preceptor were eligible to participate (n=97). The virtual CPE activity had a maximum of 30 participants.

Informed Consent Process: A registration email and activity flyer with study information was sent to all eligible pharmacists. Participation was voluntary and the Zoom registration link contained a final question to obtain consent and participation in the research study.

Data Collection Methods: The VIEM tool included two parts: observer assessment and learner self-assessment of engagement. Members of the PCEP team were trained to use the VIEM tool to observe and document instructor and learner behavior. Each observer was tasked to randomly choose three (3) pharmacists participating via video (if available) and three via audio/chat (i.e., camera off or call-in). An optional and anonymous learner self-assessment survey was sent to the participants after the activity. A 5-point Likert scale was used for each statement. (Tables 1 and 2)

Table 1. VIEM tool: observed behaviors

Learner Behavior	Instructor Behavior
<i>Video</i> 1. Engaged with non-educational material 2. Reading chat or taking notes 3. Listening to the instructor and engaged with computer screen 4. Talking to the instructor/class or typing in chat 5. Talking with small group in break out room	1. Didactic pre-recorded or live virtual session (learners passive receivers) 2. Instructor is talking/asking (large group discussion) 3. Instructor is listening/monitoring (large group discussion) 4. Instructor is talking/asking (small group discussion) 5. Instructor is listening/monitoring (small group discussion)
<i>Audio/Chat (i.e., camera off or call-in)</i> 1. No verbal interactions 2. Contribution to discussion when asked by instructor 3. Spontaneous contribution to discussion 4. Participation in chat – asking questions 5. Participation in chat – responding to questions	

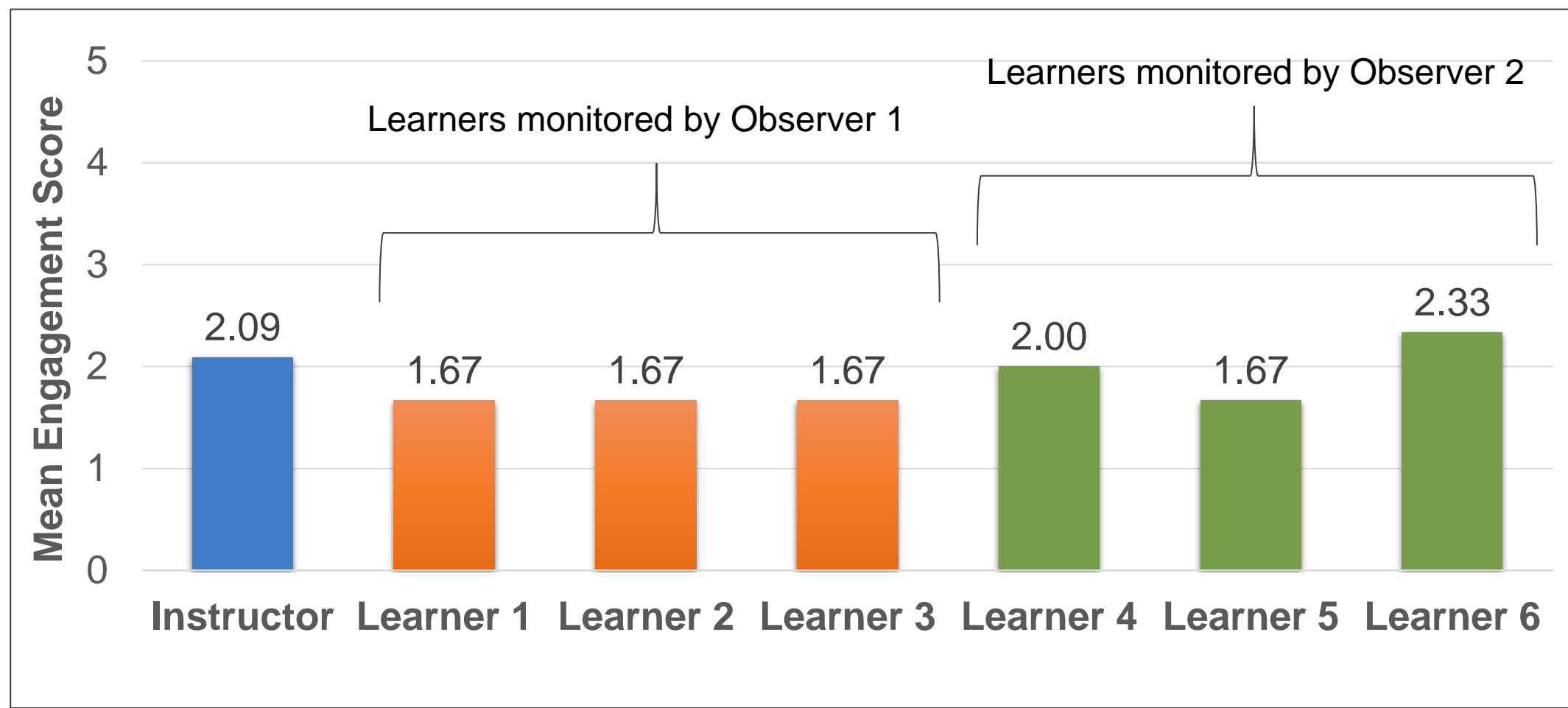
Table 2. VIEM tool: learner self-assessment engagement survey

Behavioral	<ul style="list-style-type: none">Devoted my full attentionPretended to participate
Emotional	<ul style="list-style-type: none">Enjoyed learning new thingsFelt discouraged
Cognitive/Intellectual	<ul style="list-style-type: none">The activities really helped my learningI tried a new approach or way of thinking about the content

Results

Observed behaviors: Twenty-four (24) pharmacists attended the virtual activity. The instructor was available via video while all pharmacists participated via audio/chat. Observer 1 and Observer 2 each monitored three (3) audio/chat learners. The learners' engagement scores (range 1.67 to 2.33) correlate to the instructor's score (2.09). The instructor spent the most time talking and asking while the learners only contributed to the discussion when asked. (Figure 1)

Figure 1. Mean engagement scores (Instructor vs. Learners)



Learner self-assessment of engagement survey: The response rate for the learner self-assessment of engagement survey was 88% (21/24). (Figures 2 to 4)

Figure 2. Learner self-assessment of behavioral engagement (n=21)

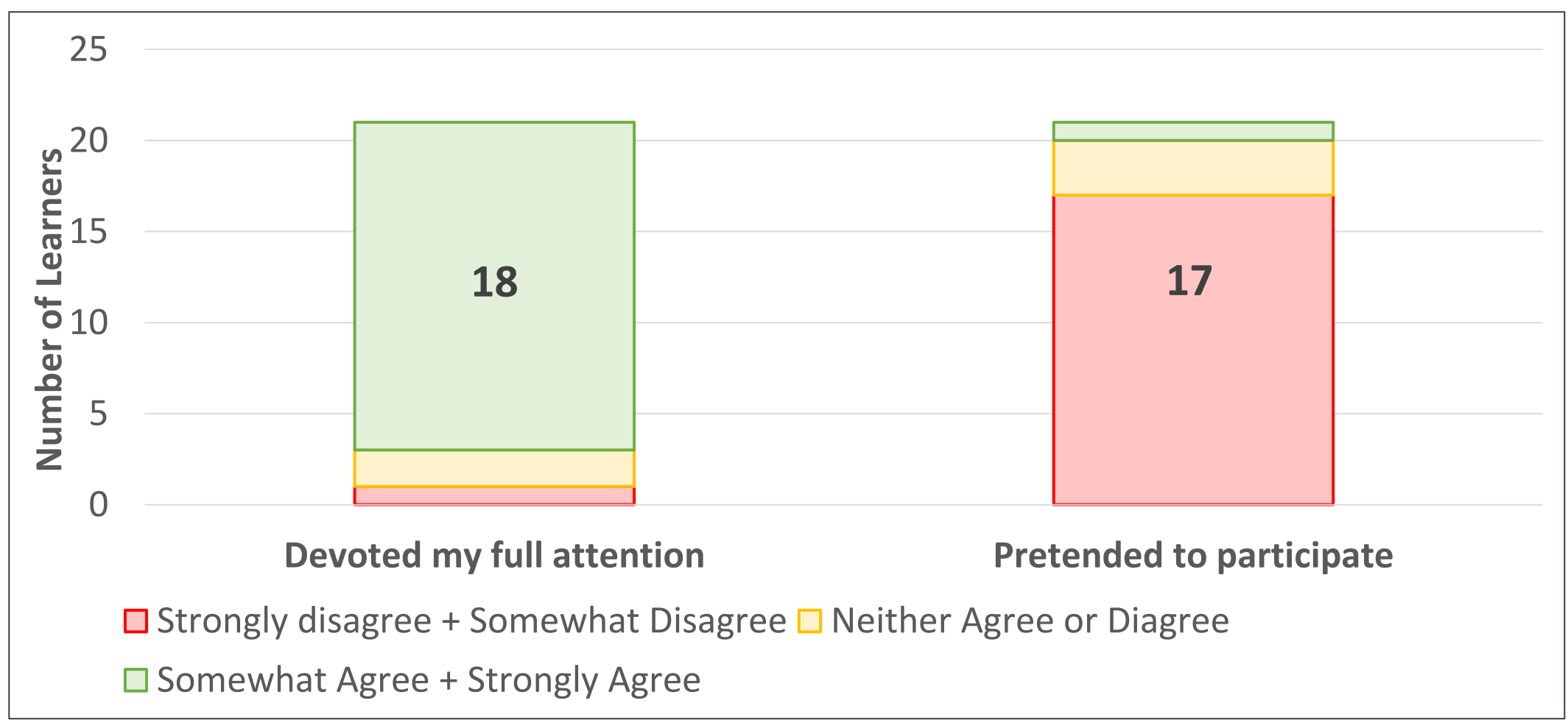


Figure 3. Learner self-assessment of emotional engagement (n=21)

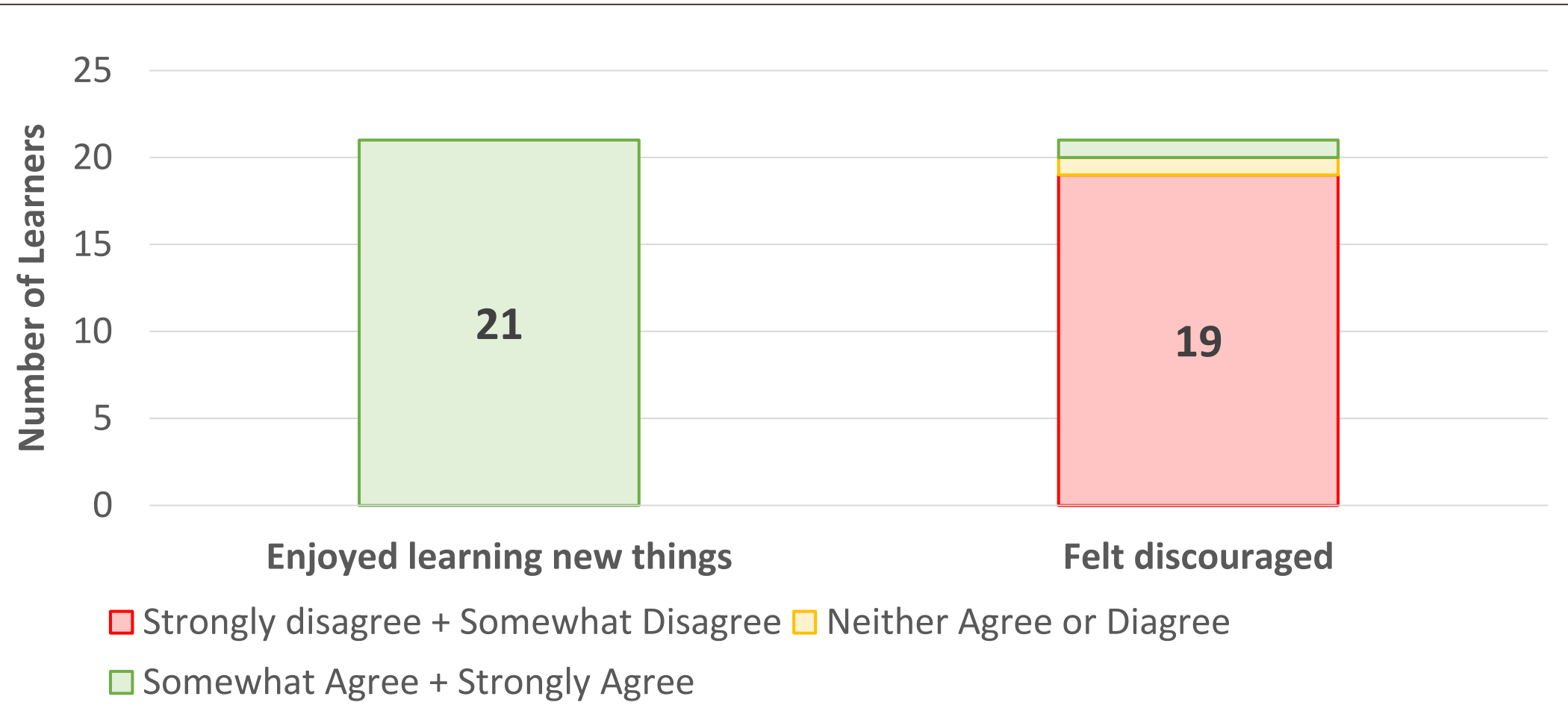
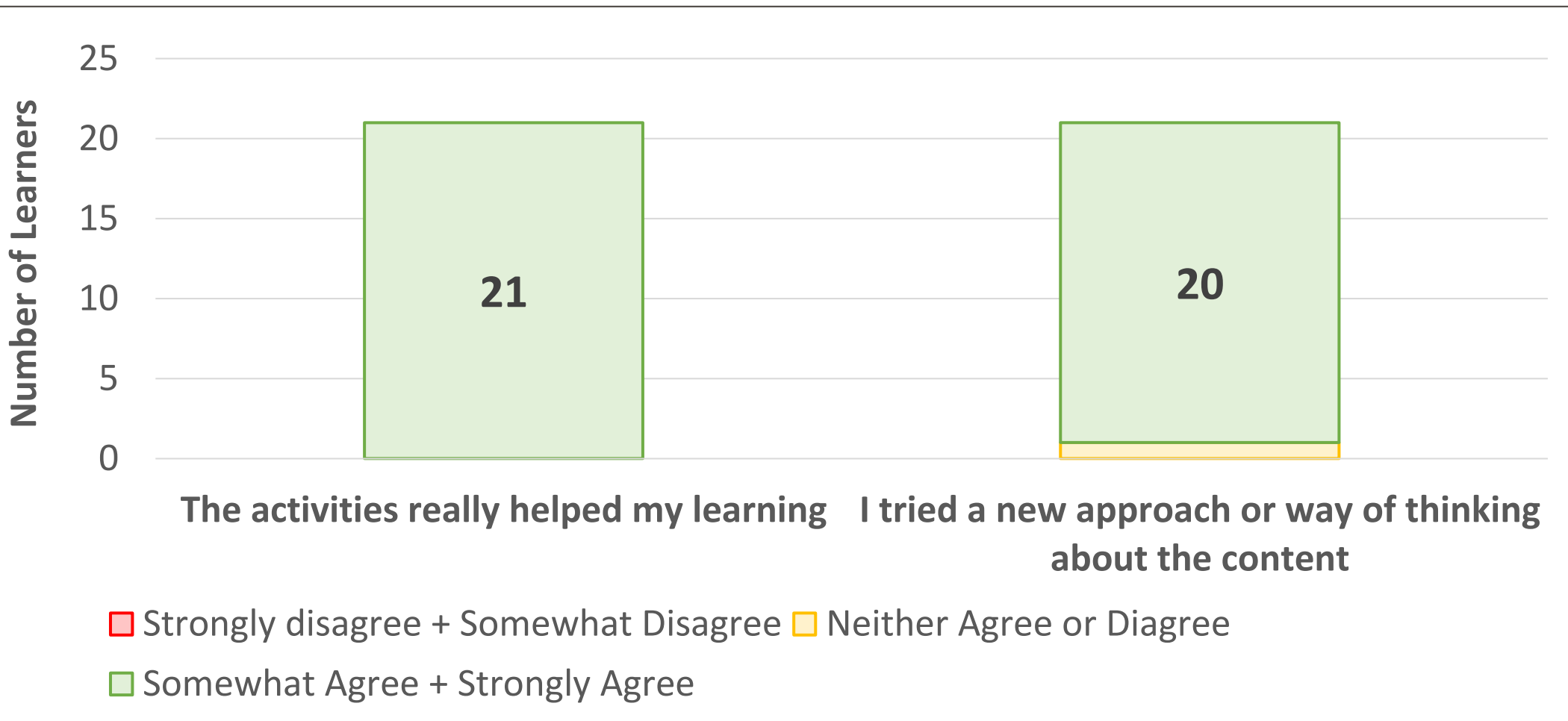


Figure 4. Learner self-assessment of cognitive engagement (n=21)



Limitations

A limitation of this study is interobserver variability. When engagement scores were compared, there was a slight difference between observers. Another limitation is that all learners attended the activity via audio/chat. Engagement of learners via video was not possible.

Conclusion

Learner observation using the VIEM tool was manageable by the observers. The engagement scores for this CPE activity compares to what has been reported in the literature when used in the online surgical education setting. However, while previous studies show that learners have reported pretending to participate in the online setting, the learners for this virtual CPE activity did not report this behavior. Overall, the VIEM tool is a feasible method to determine learner engagement in the virtual setting and may be used by the PCEP team in future activities.

References

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Disclosure

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