



Introduction & Background

Leadership development training in undergraduate medical education has gained significant traction over the last several years with many schools searching for the most effective and efficient way to develop leaders of tomorrow's healthcare. Literature review has yielded plenty of models that have been successful in business schools, however there is no consensus on what is the best model in medical schools.

We wanted to see whether a flipped classroom approach to leadership development in pre-clinical medical students would prove to be effective. There are few studies analyzing this in a leadership session. Several use the flipped-classroom approach for teaching medical students other topics and have had success.

Evidence of a flipped-classroom being an effective approach to training pre-clinical medical students in leadership would allow other medical schools to implement this approach with regard to their specific leadership training, resulting in advancement of leadership training within the medical education community.

Objectives

To determine whether a flipped-classroom approach serves a useful role in leadership training in pre-clinical medical students

Methods

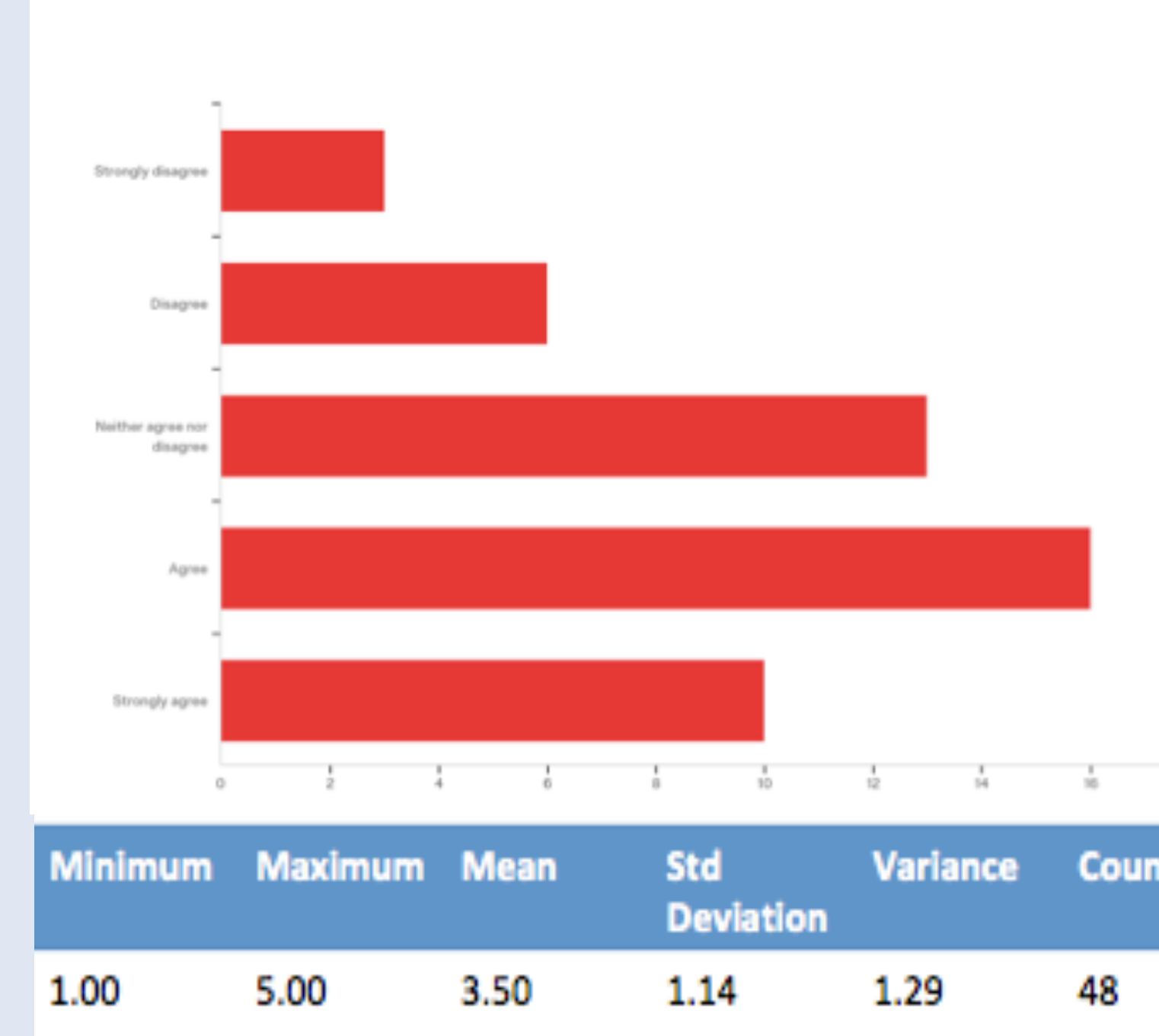
Three in-person leadership classroom sessions were held between August 2019 and December 2019 (two for M1 students and one for M2 students), and students were required to watch several short videos (<15 minutes) focused on particular leadership skills/characteristics as pre-work to these sessions. The videos were chosen from BigThink's large online video library after being viewed to ensure that the content was appropriate and aligned with the respective sessions.

Following the in-person classroom session, students were asked to assess the efficacy of the videos with respect to leadership training and the associated classroom session by completing an anonymous and voluntary survey.

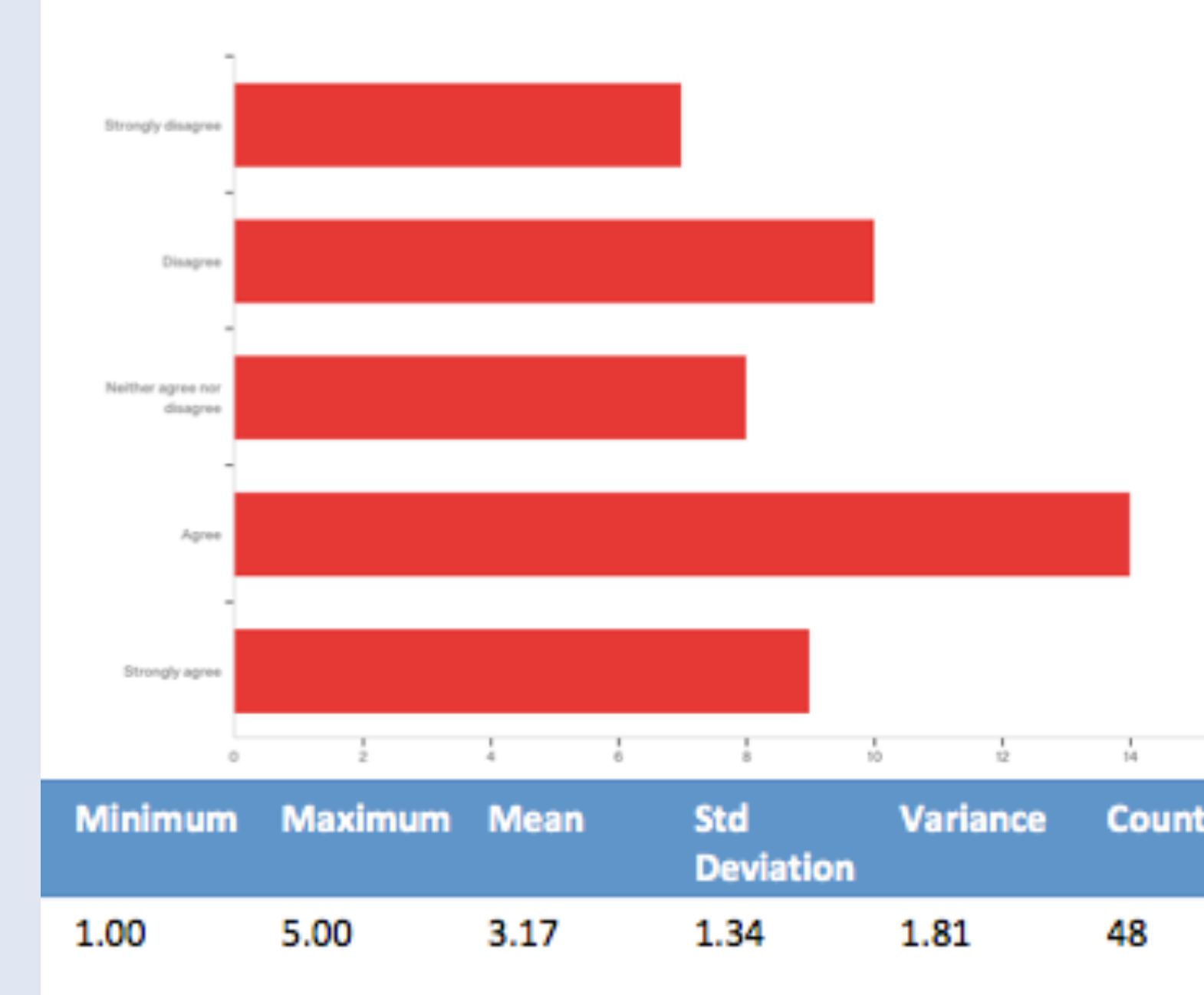
The survey utilized the Likert Agreement Scale to analyze five statements thought to represent Levels 1-3 of Kirkpatrick's Training Evaluation Model. The mean, standard deviation, and variance were used to analyze all responses to each individual statement.

Results

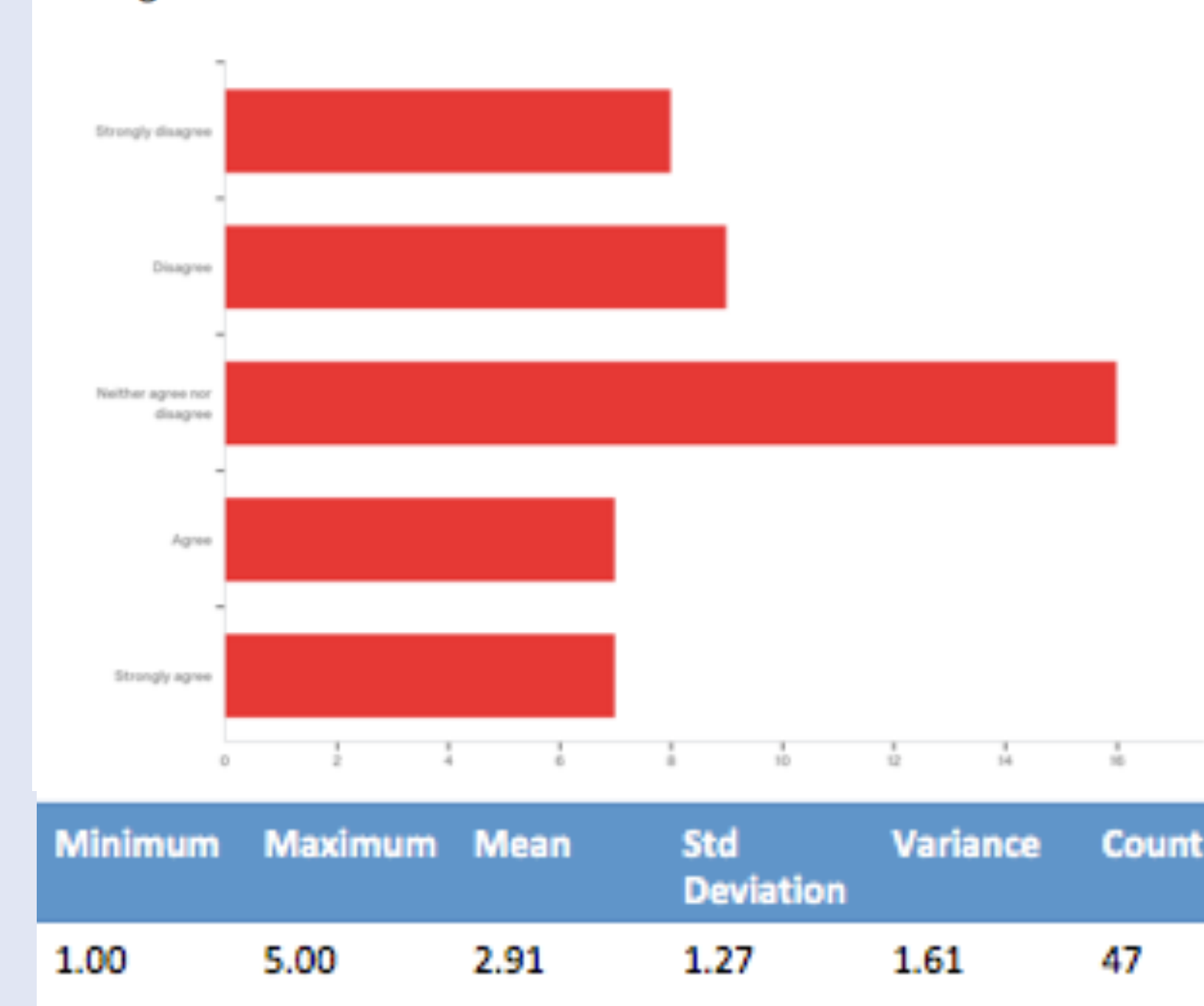
Q1 - I was satisfied with the video overall.



Q2 - The content of the video increased my knowledge of the subject material as it pertains to leadership.



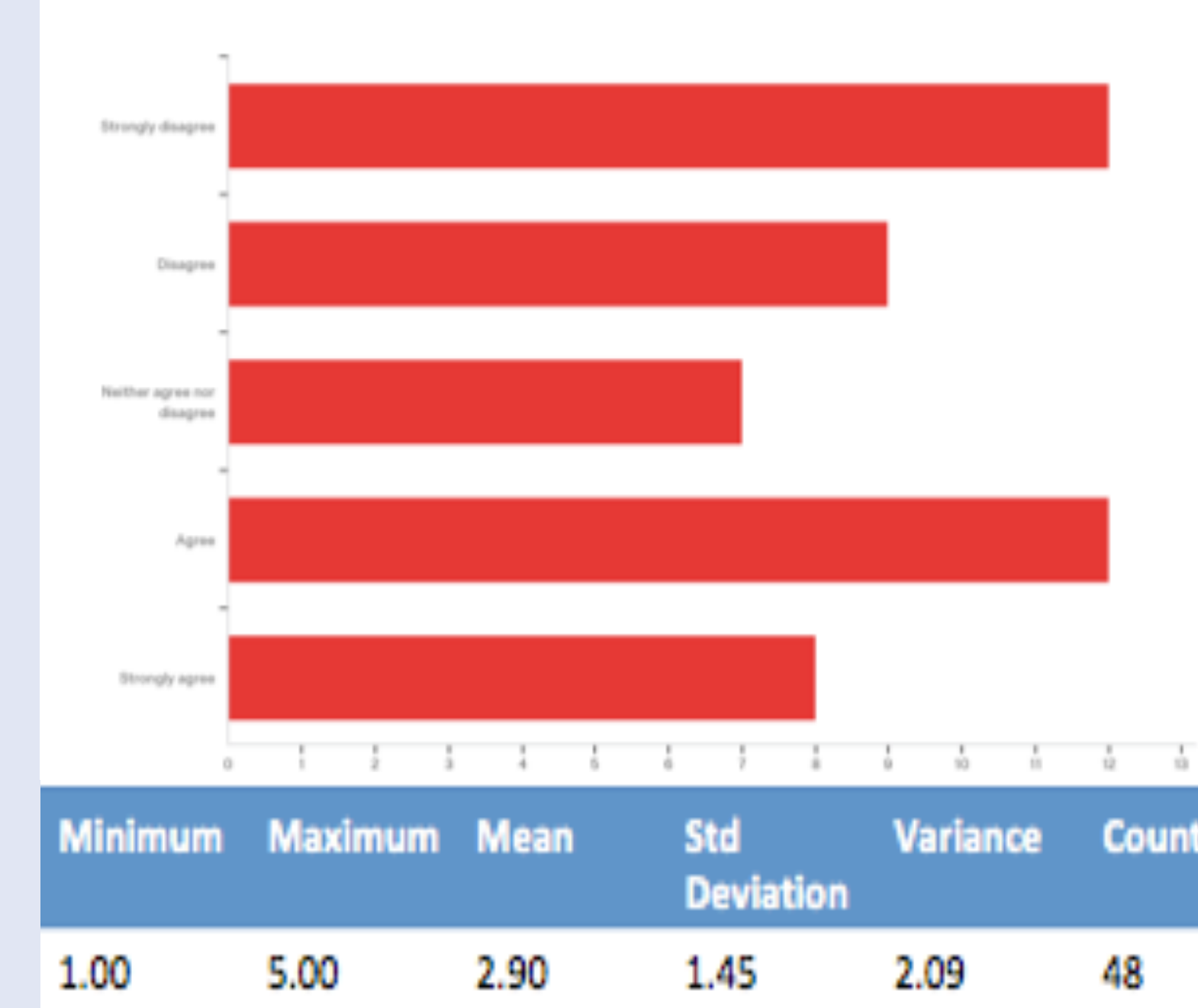
Q3 - The content of this video will impact my leadership behaviors moving forward.



Q4 - Watching videos pertaining to leadership as pre-work prior to attending live sessions is an effective way to learn about leadership.



Q5 - I would recommend this method of watching leadership videos as pre-work to others seeking leadership development.



Conclusion & Discussion

For all of the questions, the mean responses ranged from 2.90 to 3.50 corresponding to the text "neither agree nor disagree," thus the data neither supports nor denies the efficacy a flipped-classroom approach with pertinent videos may play a role in leadership development in undergraduate medical education.

In a society in which the act of learning is shifting from books and lectures to virtual media, I hypothesized that medical students would find the videos and flipped-classroom approach to leadership development as both effective and efficient. Although the results do not disprove it as a possibility for leadership development, they do not support it either. This could be do to a variety of reasons (of which are listed below). Even still, this may be a better alternative than what was previous done: assigning a paper to read as it is less of a time commitment and more interactive.

Limitations

- Delay in survey sendout
There was an unplanned delay between students watching the videos and the survey being administered.
- Small sample size
Likely the result of this being a voluntary survey. Also may be partly due to the delay in emailing of the survey.
- Two distinct target populations (first year medical students vs second year medical students).
The survey also did not account for what year of medical school each student is in. Perhaps this approach to leadership development better suits one year over another based on prior experience.

Next Steps

More data needs to be obtained for a clearer picture on the efficacy of video lessons prior to in-class session with respect to leadership development.