

## **Peer Review: Visual Encoding**

The researchers presented a compelling project proposal to understand the scientific principles behind graph generation. The study is well-motivated with clear objectives, and the planned analysis seems thorough. It would have been useful to see some example charts in the presentation, so I am unable to comment on that aspect of the project.

I would like to offer some constructive feedback on some of the challenges that the researchers have encountered so far, as well as challenges that they expect. First, while I recognize the desire to remove bad responses from MTurk, I am not convinced that 5 attention checks are necessary (unless there is precedent for that in the original paper). Typically, researchers will use one or two attention checks, but that should not be one of the main parts of the study (i.e., every 5 graphs). To reduce the number of bad responses, I would instead suggest that the researchers set a screening requirement on the crowdworkers allowed to participate in the study. For example, only allowing crowdworkers with a completion score of >95% would help prevent cheating and ensure higher quality responses.

Additionally, I have some concerns about the timeline for the project. I am not sure how feasible it is for the researchers to perform all of the analysis in 2 days, and then write the paper in less than a week. I will point out, however, that data collection on MTurk is usually quite fast (a matter of days). Hopefully, the researchers will be able to wrap up the data collection and start the analysis sooner. If not, I would suggest moving some items around on the timeline to ensure that there is enough time to complete the project in a satisfactory manner.