

# Review of: "Paulian Approach to Critical Thinking: Assessing an Intervention Program"

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Potential competing interests: No potential competing interests to declare.

Improving critical thinking in India is a worthwhile effort and the article showcases an important approach. Given predecessors', overall reviews, I highlight few specific suggestions for improvement (and if these were addressed in the present study, I should give a higher rating). I will later add some practical and broader discussion that may be useful for future work in this area.

## Suggestion: Cite specific framework components:

Paul (and Elder's) work is popular and the approach is quite encompassing. To facilitate reading, the author may want to easily include a direct full citation (snapshot) of the criterion/rubric framework they used (out of Paul's extensive work), an example of the task (format) if available, and the scoring (rubrics?) how the holistic score is derived or how any sub scores are used - in the article or as appendix. Otherwise, I find it hard to judge what any of the reported supposed quantitative improvements mean. Include some information on how the responses were scored and why a reader should like to rely on the scorers' judgment (e.g., with interrater reliability). If the author contracted external scorers, at least cite their public information on the scoring.

#### Suggestion: Cite scoring and sub-scores

From my prior look at published rubrics, they seemed to prompt scorers to reflect on each of the criteria and to give a somewhat holistic judgment. Without more detailed description, e.g., behavioral anchors - or elements explicitly addressed in writing, scorers may pass subjective judgments (and researchers run into a number of rater effects). The limit of the CT score can be the limit of the framework that the scorer has in mind, i.e., their understanding of CT. It may be more insightful to report how students improved (or not) in each of the sub-skills, elements, or dispositions - and it may be more helpful to the students, as well.

### Suggestion: Show results

Please show the mentioned achievement scores. I did not understand: Did achievement scores improve and/or did scores on Paul's task improve?

#### Suggestion: Use sample's affordances

Given the sample of student teachers, the present study examines the student teachers' own critical thinking



improvements. It would be helpful to know what topics/issues they were trying to solve or master at the time. It might be a missed opportunity to not follow up with an analysis on their instructional skills of CT in future research, when they have entered the profession.

## Suggestion: Narrow down claims

A number of claims appear too broad: To pick two: With a sample of 47 students teachers (from one institution?), we can hardly conclude about all of India; please narrow down to state or even locale (while keeping anonymous).

Further, I didn't see how any improvement in CT can be attributed specifically to the applied instruction approach in the current study design, e.g., without a control group. I.e., maybe the researcher got talented students. (Some in-depth analsis of the journals might still enable some substantiation by linking instruction units and reported insights or practices over time).

Discussion "comprehensive" understanding"... there are approaches that are complementary, so 'unfortunately', even Paul and Elder do not cover it all. (see later discussion)