

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

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Potential competing interests: No potential competing interests to declare.

Here are some points of critique regarding the study:

**Limited Generalizability**: The study focused on a specific group of student teachers in a particular university in India. While the findings are valuable for this context, they may not be easily generalized to other educational settings, regions, or age groups. The study lacks diversity in its sample, which limits the broader applicability of its results.

**Research Design**: Although the study employed a mixed-methods approach, the qualitative data collection methods seem to lack rigor. For instance, the study conducted focus group discussions but did not mention specific guidelines for conducting and analyzing these discussions. More transparency in the qualitative research process would strengthen the study.

**Subjective Measures**: The study relied heavily on self-reporting by the student teachers, which can introduce bias. Participants may have overestimated their improvements due to the Hawthorne effect (the alteration of behavior by the subjects of a study due to their awareness of being observed). The study could have benefited from more objective measures of critical thinking skills.

**Lack of Control Group**: The absence of a control group in the study makes it challenging to attribute the improvements solely to the CTIP. Without a comparative group that did not receive the intervention, it is challenging to determine whether other factors may have contributed to the observed changes.

**Duration of Intervention**: The study mentions that the CTIP lasted for 50 hours. While this is a substantial intervention, it might not be sufficient to assess the long-term impact of the program. Critical thinking skills may develop and manifest over a more extended period, and the study does not explore this aspect.

Overemphasis on Academic Performance: While academic performance is an important outcome, the study primarily focuses on this aspect. Critical thinking is not solely about academic success but also about fostering skills for effective problem-solving and decision-making in various life situations. The study could have included a more comprehensive assessment of critical thinking's real-world applications.

**Limited Discussion of Challenges**: The study does not discuss potential challenges faced during the implementation of the CTIP. Understanding the difficulties encountered by both instructors and student teachers would have provided



valuable insights into the program's feasibility and effectiveness.

**Theoretical Underpinnings**: While the study relies on Paul's Model of Critical Thinking, it does not critically assess the model itself or explore alternative models or approaches to critical thinking. A more comprehensive discussion of different theoretical perspectives would have enriched the study.

In summary, while the study provides valuable insights into the effectiveness of a critical thinking intervention program for student teachers, it has certain limitations in terms of generalizability, research design, and the depth of analysis.

Addressing these limitations would strengthen the study's findings and contribute to a more robust understanding of critical thinking development in educational settings.