

Teaching Critical Source Evaluation - A Meta-Analysis on Source Credibility Interventions

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Critical evaluation of information is crucial in today's largely ungated digital landscape, as misinformation can threaten public policies, health, and democracy. However, these critical skills do not develop naturally, even among highly educated individuals, necessitating structured interventions. Various approaches, including historical thinking, multiple document literacy, sourcing, and lateral reading, have been described to enhance source credibility judgment.

Our multilevel meta-analysis synthesizes research on these interventions, evaluating their effectiveness and the influence of participant and intervention characteristics. We analyzed 59 studies with 249 effect estimates, encompassing 15,858 participants. Results indicate that interventions significantly improve source credibility judgment ($g = 0.41$, $p < .001$), though with notable heterogeneity. Lateral reading demonstrated the highest effectiveness. Additionally, curriculum-based interventions and university settings showed stronger effects, suggesting structured, repeated practice may enhance learning. Digital technologies also moderated the effects, with e-learning platforms and open Internet resources yielding the most effective interventions, highlighting the importance of ecological validity.

Our findings suggest that interventions tailored to higher education environments are particularly beneficial, likely due to students' familiarity with research-based reasoning. Moreover, sourcing interventions that integrate interactive components and real-world settings tend to be more impactful, as they encourage active engagement and practical application of credibility assessment strategies. These insights highlight the importance of designing interventions that not only convey theoretical knowledge but also provide hands-on experience with evaluating online information.

In the presentation, we will discuss the implications of these findings for education on critical reasoning skills. We will also discuss the role of participant characteristics such as age and gender, as well as intervention characteristics like study countries and control types.

Is the first author also the speaker?

Yes

If first author is not the speaker, please indicate speaker's name here:

Please indicate up to five keywords regarding the content of your contribution

Sourcing, Lateral Reading, Source Credibility, Meta-Analysis

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