

Methods in a Minute: Systematic Review

1. Researchers publish studies at such a high rate that it can be challenging to grasp the full research landscape.
2. Adding to the confusion, different researchers often publish studies investigating the same research topic and get different results.
3. The method of systematic review was born to address these related issues.
4. In systematic review, researchers collect, organize, synthesize, and translate every study conducted on a specific research question.
5. The result is a complete, holistic picture of the research landscape.
6. To begin, researchers define the problem to be examined, as well as the criteria they will follow select studies for the systematic review.
7. For example, AIR was part of a team that conducted a systematic review of programs that seek to reduce cyberbullying among primary school students.
8. After determining the review's purpose and inclusion criteria, researchers conducted a comprehensive and systematic search of the literature.
9. For the cyberbullying project, researchers identified 11,304 potential studies of such programs.
10. At this point in systematic reviews, researchers use the predetermined criteria to identify which studies to include.
11. Then, researchers find each study's key information and format it, allowing for further analysis.
12. Using the extracted information, researchers can describe the studies' similarities and differences, especially regarding their findings.
13. For the cyberbullying project, AIR researchers extracted information from 50 studies. The authors also grouped studies into categories of similar strategies.
14. Overall, cyberbullying prevention programs show promise in reducing both cyberbullying and traditional bullying, and programs that included a skill-building component showed particular promise.
15. Providing this kind of information can help school personnel decide which types of programs to invest in.
16. Some systematic reviews may also use descriptive analyses to summarize the who, what, where, and why of the existing research.
17. Going beyond descriptive analyses, information about the effectiveness of the strategy tested in each study is extracted and synthesized.
18. The process of synthesizing effect sizes is known as meta-analysis.
19. With a systematic review, researchers can present the full picture of a topic's research. This ensures that positive, null, and negative findings are represented in the review.
20. These results can help policymakers and practitioners make informed, evidence-based decisions about particular programs or practices.
21. Learn more about evidence synthesis methods and AIR's synthesis projects at mosaic.air.org.