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A Systematic Methodology to Improving Literature Review Results

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A Systematic Methodology to Improving Literature Review Results

Abstract

Summary: This presentation makes a case for a systematic and transparent literature review process, which increases the rigor and strength of primary research. Methods for collecting, screening, mapping, appraising, and synthesizing literature are presented. Application examples are included to solidify presentation concepts.

Disciplines

Agriculture | Bioresource and Agricultural Engineering | Engineering Education

Comments

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School Administration

A Systematic Methodology to Improving Literature Review Results

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Need: For novel research to produce the highest impact, it should be solidly grounded in germane literature. As graduate students, research staff, and faculty strive to produce exceptional research in engineering and technology fields, inequalities in the rigor between primary research and literature reviews can exist. By using a systematic and transparent methodology, researchers can increase the strength of evidence informing their research.

Overview: This presentation will present a process for constructing a sound, data-driven foundation on which to frame research questions. To accomplish this, we present a systematic methodology that includes a clearly defined review strategy, enabling a researcher to make robust screening, mapping, quality appraisal, and synthesis decisions on each source of literature within a literature review. This methodology will bolster the credibility and clarity of a study's conclusions as well as the fidelity of the literature review.

Major Points:

- Why literature reviews should be systematic
- Methodology for systematizing literature reviews
- Systematic reviews as primary research

Summary: This presentation makes a case for a systematic and transparent literature review process, which increases the rigor and strength of primary research. Methods for collecting, screening, mapping, appraising, and synthesizing literature are presented. Application examples are included to solidify presentation concepts.