

RESEARCH AS A PILLAR IN STEAM EDUCATION - PROSPECTS TO FORMALIZE RESEARCH IN SCIENCE EDUCATION

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Paper Abstract

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HOW TO CITE THIS PAPER?

Abstract

Introduction: In the fast-paced landscape of contemporary education, Science, Technology, Engineering, Arts, and Mathematics (STEAM) education stands as a vanguard, aimed at equipping students with the skills required for the 21st century.

Problem: While STEAM education is increasingly recognized as a crucial educational approach, the precise role of research within it and how it can be effectively formalized remains a topic of inquiry. There is a pressing need to understand how qualitative research within STEAM can be harnessed to promote innovation, cultivate critical thinking, and develop problem-solving skills in students. This systematic review aims to address this gap in our knowledge.

Methods: This qualitative systematic review embarks on an exploration of the pivotal role of research within STEAM education, addressing the need to formalize innovation in science education. The systematic review approach is well-suited for synthesizing existing qualitative research, offering a robust method to gather insights from diverse sources and generate a comprehensive understanding of the role of research within STEAM education. Data for this systematic review will be sourced from peer-reviewed journal articles, conference papers, and reports that focus on qualitative research within STEAM education. The systematic review will involve data extraction, coding, and thematic analysis, using the COSTAQDA cloud-based software.

Expected Results: We anticipate that the systematic review will uncover recurring themes, challenges, and successful strategies related to qualitative research within STEAM education. By distilling these findings, we aim to provide a valuable resource for educators, curriculum developers, and policymakers, allowing them to better integrate research into STEAM education.

Conclusion: This systematic review aims to provide a comprehensive understanding of the role of qualitative research in STEAM education. By synthesizing existing knowledge, it can offer insights that guide curriculum development, pedagogical practices, and the integration of research within STEAM programs.

Keywords: Innovation, Research, STEAM



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Institutions

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Track

- 2. Qualitative Research in Education

Keywords

innovation; Research; Steam Education

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