Identification of positions in literature using Thematic Network Analysis: The case of early childhood inquiry-based science education

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Reviews and meta-analyses often summarise research within a given field to provide succinct and accessible information about state of the art as well as gaps for future research to address. In educational research such information may include different positions within a field; for example, theoretical positions underpinning empirical studies. Such theoretical positions may influence interpretations of research results, and they remain a challenge to map and present. In this paper, we show how to use thematic analysis combined with network analysis to map, identify and analyse theoretical positions within educational research. We use early childhood inquiry-based science education (ECIBSE) literature as a case, because of its historical roots in Dewey’s educational philosophy. This allows us to discuss our findings in light of a well-known theoretical framework. Using our methodology, we identify and analyse four theoretical positions for teaching and learning: (1) that science should be learned/understood through inquiry, (2) that teaching should model scientific practices, (3) that children should develop science-related competencies, and (4) that the child’s exploration and experience should take precedence. After discussing these positions in relation to Dewey, we turn to the methodological possibilities and challenges of using thematic network analysis for literature reviews.

Keywords: mixed methods; network analysis; thematic analysis;

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