A Review of the Evolving Definition of Orchestration: Implications for Research and Design

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ABSTRACT
The term orchestration describes how teachers manage learning in the classroom. However, interpretations of the term have influenced the application of the definition in research. In this paper, we discuss a review of orchestration technology and analyze the definitions of orchestration with respect to the research conducted and the design of orchestration tools to support teachers. We then discuss implications for the design of orchestration tools.

RESEARCH QUESTION: How have the different definitions of the term orchestration influenced the research that has been conducted?

METHODS
Searches conducted on ERIC, JSTOR, and PsychINFO databases for articles with orchestration in the title and abstract
- ERIC: 124 articles
- JSTOR: 22 articles
- PsychINFO: 81 articles

Inclusion criteria:
- Empirical studies
- Published in peer review journals
- Published 2009 - 2018
- Formal education contexts

24 INCLUDED ARTICLES

Coded for:
- Definition of orchestration (citation)
- Context – location and students
- Subject of research questions

FINDINGS
- Dillenbourg is the most cited definition of orchestration
- Evenly distributed across classrooms and lab studies
- More K12 studies than postsecondary
- Recent emphasis of methods studies
- Little emphasis on design
- Definitions focus more on the teachers than the students

FUTURE WORK
- Do more comprehensive searches
- Analyze full definitions and analyze the relationship between how it was applied to the paper

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