

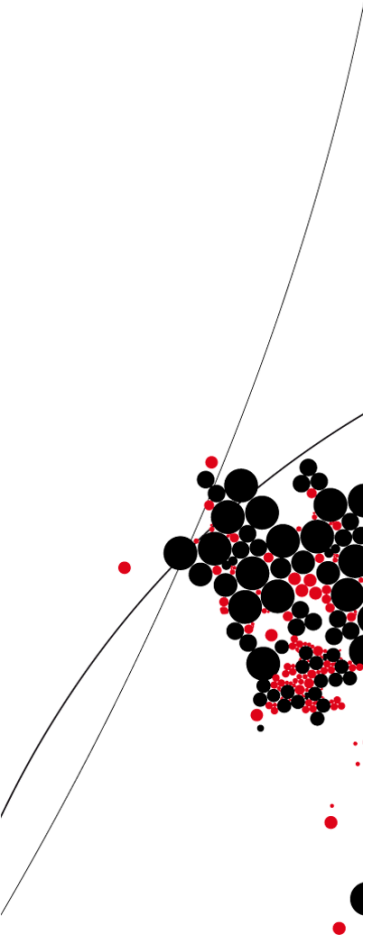
Paradigms & Principles Shaping Educational Design Research

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Susan McKenney

Open University & Twente University

UNIVERSITY OF TWENTE.



Position statement

Though specific research contexts offer both opportunities and constraints, the methodology of any kind of research (practice-oriented or otherwise) should be determined *primarily by its goals.*



What is educational design research?



“...a genre of research in which the iterative development of **solutions** to practical and complex educational **problems** also provides the context for **empirical investigation**, which yields **theoretical understanding** that can inform the work of others.”

- *McKenney & Reeves, 2012*

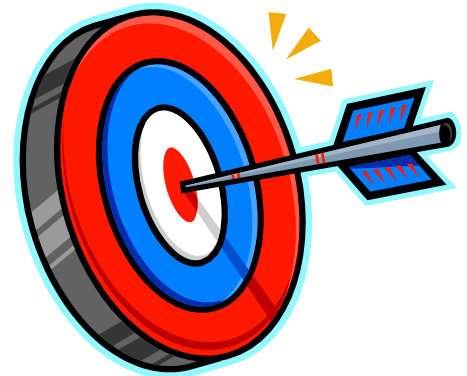
Goals of Educational Design Research

Sine qua non:

- Solutions to real and complex problems
 - Programs, processes, products, policies
- Theoretical understanding
 - Describe, explain, predict, prescribe

Often also:

- Professional development
 - Respondents, researchers, facilitators



Quality EDR must:



- Yields interventions that:
 - Address real and complex problems within given context;
 - Are effective and practical; and preferably also
 - Internally consistent and based on state-of-the-art scientific understanding
- Yields theoretical understanding that:
 - Helps describe, explain, predict and/or prescribe (how to achieve) specific phenomena
 - Is credible and justifiable; and
 - Constitutes a contribution to new knowledge (e.g. by challenging dominant thinking, or breaking new ground)

Quality EDR may also:

- Yield professional development
 - Of those involved, such as:
 - Researchers,
 - Practitioners, and/or
 - Facilitators
 - As indicated by
 - Changes in knowledge, skills and/or attitudes
 - Experimentation/use of new insights in daily practice
 - Improved task performance







Resources ↔ Goal Pursuit

- Human
 - Expertise
 - Energy
 - Opportunity
- Material
 - Tools
 - Workspace
- Facilitating
 - Time
 - Funding



Paradigms ↔ Goal Pursuit



- Ontologies

- Differing views of reality yield differing areas of focus
- One true reality?
 - Seeks consensus (e.g. inter-rater reliability)
- Multiple realities? High value on subjective impressions
 - Seeks multiple interpretations (e.g. and tries to describe them well)

- Epistemologies

- Different views on knowledge have implications for how it is sought
 - Researcher, participant and topic are independent?
 - Dualism, objectivism (e.g. reduce biases)
- Researcher, participant and topic are dependent?
 - Deeper insight through intense interaction (e.g. undercover agent)

Methods ↔ Goal Pursuit

- Different kinds of research questions can be answered with different kinds of instruments/data
- Different kinds of findings make different kinds of contributions to theoretical understanding
- In EDR, we often ask things like:
 - Are effects present?
 - Often, but not always involves quantitative data
 - How and why are effects (not) present?
 - Often, but not always, involves qualitative data



Take-home ideas

- The standards to be adhered to must be set in accordance with each goal of the initiative.
- The resources, paradigms and methods present powerfully influence how those standards are adhered to.
- EDR can accommodate multiple ontologies, epistemologies and methodologies.
- Researchers often find it difficult to value investigations departing from ontologies, epistemologies and methodologies differing from their own.



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Thank you!
For discussion beyond today...

Susan McKenney

www.EducationalDesignResearch.org

susan.mckenney@ou.nl

susan.mckenney@utwente.nl

UNIVERSITY OF TWENTE.

