JUST AS GOOD IS NO LONGER ACCEPTABLE: THE PROMISE OF EDUCATIONAL DESIGN RESEARCH

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[Monday, April 2 from 12:30pm -2:00pm ET]
PART I: FOUNDATIONS OF EDUCATIONAL DESIGN RESEARCH (EDR)

- Definition
- Motives and origins
- Outputs
- A generic model
DEFINING EDUCATIONAL DESIGN RESEARCH

…a genre of research in which the iterative development of practical solutions to complex educational problems also provides the context for empirical investigations that yield theoretical understanding that can inform the work of others.
MANY NAMES

- Educational Design Research
- Design-Based Research
- Design Experiments
- Formative Research
- Development Research
MOTIVES

- 90 plus years of NSD (No Significant Differences)
- Traditional research limitations
“JUST AS GOOD” IS NOT ACCEPTABLE
ORIGINS

- Ann L. Brown and Allan M. Collins

- The Learning Sciences
- Design-Based Research Collective
PASTEUR’S QUADRANT

Basic Science and Technological Innovation

Donald E. Stokes
# Pasteur’s Quadrant

<table>
<thead>
<tr>
<th>Quest for fundamental understanding</th>
<th>Quest for application</th>
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<tbody>
<tr>
<td>Yes</td>
<td>Pure Basic Research</td>
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<td></td>
<td>Bohr</td>
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<tr>
<td>No</td>
<td>Yes</td>
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<tr>
<td></td>
<td>Use-Inspired Basic Research</td>
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<td></td>
<td>Pasteur</td>
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<tr>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Applied Research</td>
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<td>Edison</td>
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CHARACTERISTICS

- Collaborative
- Utility-oriented
- Theory-informed
- Interventionist
- Iterative
- Rigorous
- Relevant
TWO PREDOMINANT ORIENTATIONS

- Research “on” interventions
- Research “through” interventions
EDR: OUTPUTS

- Fundamental understanding
- Applied use
A GENERIC MODEL FOR EDR
POLL 1

- Do you think that the quest for fundamental understanding and the search for practical applications can be successfully combined in one approach?
  - Yes
  - No
  - Unsure
DISCUSSION, Q&A 1

- Do you think that the quest for fundamental understanding and the search for practical applications can be successfully combined in one approach?
- Why or why not?
PART II: CORE PROCESSES

- Analysis & exploration
- Design & construction
- Evaluation & reflection
- Implementation & spread
ANALYSIS & EXPLORATION

Analysis
- Initial orientation
- Literature review
- Field-based investigation

Exploration
- Site visits
- Professional meetings
- Networking
DESIGN & CONSTRUCTION

Design:
- Mapping solutions
  - Requirements and propositions
  - Skeleton design
  - Detailed specifications

Design:
- Exploring solutions
  - Generating ideas
  - Considering ideas
  - Checking ideas

Construction
- Creating initial prototypes
- Revising prototypes
EVALUATION & REFLECTION

Evaluation

- Establish the focus
- Frame guiding questions
- Select basic strategies
- Determine specific methods
- Draft and revise a planning document
- Create or seek instruments
- Collect the data
- Analyze the data
- Report the study

Reflection

- Organic
- Structured
IMPLEMENTATION & SPREAD

- Implementation
  - Adoption
  - Enactment
  - Sustained maintenance
- Spread
  - Dissemination
  - Diffusion

- Mindset: Planning for actual use
- Determinants of implementation & spread
  - Intervention attributes
  - Strategies used
  - (System) context
  - Actors
POLL 2

- How natural or contrived would it be to align your own work with the generic model for conducting educational design research?
  - Very natural
  - Partly natural and partly contrived
  - Very contrived
  - Unsure
DISCUSSION, Q&A 2

- How natural or contrived would it be to align your own work with the generic model for conducting educational design research?
- Why?
- Can/should this change?
PART III: MOVING FORWARD

- Proposing EDR
- Reporting EDR
- Future EDR
PROPOSING EDR

- Different ways to position EDR studies

![Diagram showing different stages of EDR studies]

- Initial
- First
- Alpha
- Revisited
- Second
- Beta
- Third
- Gamma

Sub-study A
Sub-study B
Sub-study C
Sub-study D
REPORTING EDR

- Common concerns
- Understanding different audiences
- Writing recommendations
FUTURE EDR

- Challenges to be tackled
- Socially responsible research
- The EDR community
- The time is now
EDR AND PHD STUDENTS

Susan McKenney & Harini Raval

Tom Reeves & Eunjung Oh
EDR RESOURCES - BOOKS
EDR RESOURCES - WEBSITES

- http://projects.coe.uga.edu/dbr/expertinterview.htm
- http://edr.sagepub.com/content/41/1/16.short
POLL 3

- To what extent do you think that engaging with educational design research could be useful in your own context?
  - Very much
  - Some
  - Very little
  - Unsure
DISCUSSION, Q&A 3

- What might facilitate and/or hinder you or your colleagues in engaging with educational design research?
- Why?
WE WELCOME COMMENTS

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