



Teaching Design and Development Research

D&D Roundtable 08

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Conference Theme: Learning in the Age of Globalization

Global citizens “must be able to competently negotiate cultural differences, manage multiple identities, comfortably interact with people from different cultures, and confidently move across cultures as well as the virtual and physical worlds” (Zhao, 2007)

Why teach D&D?

In my Fall F2F Design and Development Research course I showed a video clip of a TED talk from a 12-year old, who developed his own APP on his own time for his own reasons.



http://www.youtube.com/watch?feature=player_embedded&v=ehDAPI0Q9Zw#

- How as educators do we help these young people?
- What learning experiences will we be designing?
- How do we study what we design and try out?

Teaching Research Questions

- What should be learned by graduate students?
- What should the “content” be for such a course?
- What is the knowledge base: Readings?
- What should students do? using the Design and Development process, design experiments?
- How do graduate students and new faculty develop habits of studying what they teach?

What I’ve tried this fall:

- Richey & Klein (2007). *Design and Development Research*. Erlbaum.
- D&D readings (see page 2)
- D&D proposal
- F2F peer feedback on readings/proposal
- Research focus, research questions, data sources, collection, analysis

See above link to download syllabus, task guidelines for readings and research proposal, and reading list.

Design & Development Research

IDT 693 88192 FALL 2012
Mondays 4.00 - 6.50 pm 510 Allen Hall
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A major research methodology in the IDT field is Design & Development Research, which provides a systematic cycle to study how a designed tool, product, model, or course assists student learning. Conceptually, the design/development cycle is similar to the Instructional Design process you may have learned in EDP 640.

Strand A | READINGS

Design & Development Research Text
Classic Design Research Papers
Summaries: AECT Handbook Chapters
Critiques: Sample Research Papers

Strand B | RESEARCH PROPOSAL

Research Focus
Research Questions
Data Collection & Analysis Procedures
Rationale & Limitations

During the semester we will be reviewing classic and current papers on Design & Development Research, while at the same time drafting a research proposal using this methodology. This course is designed for doctoral students who are considering

Reading List

Tab 1: Readings from Tom Reeves

Reeves, T. C., Herrington, J., & Oliver, R. (2005). Design research: A socially responsible approach to instructional technology research in higher education. *Journal of Computing in Higher Education*, 16(2), 96-115.

Reeves, T. C., Herrington, J., & Oliver, R. (2004). A development research agenda for online collaborative learning. *Educational Technology Research and Development*, 52(4), 53–66.

Tab 2: Beginnings of Design Research – Design Experiments

Collins, A. (1992). Towards a design science of education. In E. Scanlon & T. O’Shea (Eds.), *New directions in educational technology* (pp. 15-22). Berlin: Springer.

Brown, A. (1992). Design experiments: Theoretical and methodological challenges in creating complex interventions in classroom settings. *Journal of the Learning Sciences*, 2(2), 141–178.

Tab 3: Review of 10 Years of Design-Based Research

Anderson, T. & Shattuck, J. (2012). Design-based research: A decade of progress in education research? *Educational Researcher*, 41(16), 16-25. Also online at: <http://edr.sagepub.com/content/41/1/16>.

Tab 4: AECT Handbook Chapters (2nd, 3rd editions)

Richey, R. C., & Klein, J. D. (2005). Developmental research methods: Creating knowledge from instructional design and development practice. *Journal of Computing in Higher Education*, 16(2), 23-28.

Richey, R.C., Klein, J., & Nelson, W. (2004) Developmental research: Studies of instructional design and development. In D. Jonassen (Ed.) *Handbook of Research for Educational Communications and Technology* (2nd ed.) (pp. 1099-1130). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Spector, J. M, Merrill, M. D, Van Merriënboer, J., & Driscoll, M. P. (2008). *Handbook of Research for Educational Communications and Technology* (3rd ed.). New York: Routledge/Taylor & Francis Group.

Tab 5: Development Research Examples

Shambaugh, R. N., & Magliaro, S. G. (2001). A reflexive model for teaching and learning instructional design. *Educational Technology Research & Development*, 49(2), 69-92.

Hung, W., Smith, T. J., Harris, M. S., & Lockard, J. (2010). Development research of a teachers’ educational performance support system: The practices of design, development, and evaluation. *Educational Technology Research & Development*, 58(1), 61-80.