4TU. CENTRE FOR ENGINEERING EDUCATION

Conducting Educational Design Research:
An Introductory Workshop for (Higher Education) Teachers, Academic Staff, and Doctoral Students

Expert: [Prof. (em.) Thomas C. Reeves](#), University of Georgia, Athens (US)

Date/Time: 12 December 2018, 10.00-16.00 hrs
Location: University of Twente campus
Register via email: i.wilmink@utwente.nl
Max 35 participants.

Overview

Educational design research (EDR) addresses two primary goals: 1) improving educational effectiveness in specific practical settings, and 2) identifying empirically grounded and sharable design principles and models for enhancing educational effectiveness beyond specific settings. A third, but nonetheless important goal, is professional development for all participants, both practitioners and researchers. Since its formalization in the early 1990s, EDR (also known as "design-based research" and by several other names) has become increasingly adopted by educational researchers and collaborating practitioners working in fields such as educational technology, the learning sciences, and healthcare education. EDR goes beyond "action research" by combining the solution of real world practice problems with the search for reusable/replicable intervention design principles. The emphasis in this workshop will be less on the theoretical aspects of EDR and more on the "nuts and bolts" of how it can be done by all types of educational researchers and practitioners as well as by doctoral students. The presentation aspects of the workshop will be kept to a minimum to enable sufficient focus on planning exercises and feedback to the participants.

Objectives:

Workshop participants will be able to:
1) distinguish EDR from other types of educational research,
2) decide when EDR is the most appropriate methodology for their research goal, problem, and questions;
3) present a rationale for conducting EDR in a specific context, and
4) prepare a preliminary proposal for an EDR study to address a particular set of problems in a specific practice setting using an EDR design template.

Degree of expertise required by workshop participants:
This tutorial is primarily intended for doctoral students, early career researchers, teachers, and other scholars unfamiliar with the unique and powerful educational design research approach to educational inquiry.

Description of the workshop:
The emphasis will be on how educational design research can be planned, implemented, and reported by doctoral students, collaborating teachers, and other educational researchers. Several examples of educational design research studies done by doctoral students supervised by Professor Reeves and other scholars will be shared. A hands-on small group planning exercise will enable the participants to prepare a preliminary prospectus for an educational design research study to address a particular set of research problems.

The first phase of EDR, Analysis and Exploration, begins with the exploration and clarification of a problem or practice challenge that educational researchers identify in close collaboration with practitioners. The nature of the problem is additionally illuminated by rigorous literature review and careful needs assessment.

The second major phase of EDR, Design and Construction, involves the development of a prototype solution to the problem, often referred to as an intervention. This development phase is also accomplished working closely with practitioners such as teachers or curriculum specialists.

EDR's third phase, Evaluation and Reflection, involves three or more iterative stages of testing, analysis, and re-design to improve the intervention systematically and refine the theoretical design principles that undergirded the initial prototype design and subsequent re-designs. Again, work in this phase involves collaboration with teachers, other practitioners, and when appropriate, students.

Concurrent with these three major phases is attention to Implementation and Spread in an effort to optimize the resultant intervention and design principles for wider dissemination to other practitioners and researchers. Ideally, an EDR initiative concludes with the synthesis of all the previous research and design efforts into an enhanced prototype and a robust set of design principles that can be used to guide further research in the local practice setting as well as research conducted by educational researchers in other areas. Typically, the results of EDR are published in both research journals and practitioner-oriented publications. Finally, EDR, by being both rigorous and relevant, strives to maximize transfer from theory to practice.

Related Publication:
McKenney, S. E., & Reeves, T. C. (2019). *Conducting educational design research*. London: Routledge.