

# Designing for situated knowledge: methodological issues and more

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# Designing for situated knowledge: methodological issues and more

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When it comes to the type of complex questions such as to how to design for situated knowledge in a world of change, much has been written and said about the gap between education and teaching practice. In other words, what is suitable research methodology to address such complex and interwoven problems? How can we research it in such a way that we come to results that are valid and can and will be used in educational practice?

Actually, this is the central theme of the EARLI 2017 conference: 'The role of research in advancing education is being challenged as are the funding opportunities for educational and psychological research.' (EARLI, 2016). The gap between educational practice and educational science is not that of teachers simply not using insights from educational science (although this is also a problem) but that results from science are not applicable or even worse, are incorrect or oversimplified (e.g., Kuhl, 2001; Reeves, 2006)

Indeed, since many researchers and policy makers believe this gap is too wide, over the years initiatives have been taken to address this problem. Such as the founding of EAPRIL, an EARLI associated research organization that puts emphasis on the impact and applicability of educational research.

Unfortunately these problems, that seem to result in a low impact of educational science, appear to be tenacious, even making it the general challenge that this EARLI 2017 conferences will address: 'to increase the impact of research in the political and societal decision-makers' (EARLI, 2016).

In this presentation we take a closer look at the (methodological) causes for this gap. We will take a deeper look into the debate of what some have started to call 'the replication crisis', which is leading to a heavy and sometimes emotional debate in for instance the field of social psychology. Translating this to educational research, we are confronted with the same discussion. Our analysis suggests that at the heart of the problem is the fact that educational science (and social science) in general struggle with research methods that deal with 'complex' problems, with strongly interwoven variables (Kuhl, 2001) such as many of the problems and challenges in education are. This leads to problems such as empirical studies that can't be replicated, contingency issues, the file drawer problem which decreases the change of incorporating negative or unclear results in meta-analyses, and so on (Reeves, 2006).

It is not so much that there is a lack of research methods that are intended to understand 'complex' problems or situations, but maybe more a matter of general acceptance within academia. Well-known examples are for instance the precede-proceed model (Green & Kreuter, 2005), mode 2 research (Gibbons, Limoges, Nowotny, Schwartzman & Scott, 1994), design based research (Reeves, 2006) and more in general qualitative, participatory, practice based or interpretive research (Lodico, Spaulding, & Voegtler, 2006; Silverman, 2010). A summarizing overview of these methods will be presented. A common denominator of all these methods lies in increasing the interaction between practice and research. A specific way to do this is through what is sometimes described as valorization: the attempt to get the maximum value and usefulness out of research for the benefit of

society. But the simple fact that these tried and tested research methods – aimed at addressing intertwined complex problems – are available, may not be enough. The gap is still there and we are still missing a piece of the puzzle. Therefore we need to expand our view by taking into account other aspects of academic culture, such as the academic reward system, publication strategies, increased competition between researchers (Van den Brink, Scholten, & Jansen, 2016), the mechanisms to build up academic reputation and the difference between multi-disciplinary approaches and inter-disciplinary approaches. This too will be analyzed.

Finally, as a case study, a recent policy initiative in the Netherlands will be described and reviewed as an attempt to change this university reward and evaluation system, an initiative which may solve part of the puzzle. In the Netherlands, in a joined effort of the Ministry of OCW (Education, Culture and Science), the VSNU (the Association of Dutch universities), KNAW (Royal Dutch Academy of Sciences) and NWO (Dutch Organization for Scientific Research) redesigned the national Research Quality Assurance with its Standard Evaluation Protocol (SEP). All research at Dutch universities, NWO and Academy institutes is assessed every six years using this Standard Evaluation Protocol. This protocol, which sets out in detail how assessments take place, has evolved over more than twenty years, and its current version (2015-2021) has a new set-up with much more emphasis on societal impact and valorization. We will illustrate how this new approach might help to solve the gap between research and educational practice and as such increase the impact of educational research. The SEP's new emphasis on valorization is expected to strengthen the interaction between research and practice. And eventually this should make it more difficult to avoid dealing with the complexity of educational practice.

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