

# Tightening research-practice connections: Applying insights and strategies during design charrettes

## Citation for published version (APA):

McKenney, S., Gomez, K., & Reiser, B. (2012). Tightening research-practice connections: Applying insights and strategies during design charrettes. In J. van Aalst, K. Thompson, M. J. Jacobson, & P. Reimann (Eds.), *The Future of Learning: Proceedings of the 10th International Conference of the Learning Sciences (ICLS 2012) - Volume 2, Short Papers, Symposia, and Abstracts* (Vol. 2, pp. 590-591). International Society of the Learning Sciences.

## Document status and date:

Published: 28/12/2012

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

<https://www.ou.nl/taverne-agreement>

## Take down policy

If you believe that this document breaches copyright please contact us at:

[pure-support@ou.nl](mailto:pure-support@ou.nl)

providing details and we will investigate your claim.

Downloaded from <https://research.ou.nl/> on date: 09 Aug. 2022

Open Universiteit  
[www.ou.nl](http://www.ou.nl)



# Tightening research-practice connections: Applying insights and strategies during design charrettes

Susan McKenney, Open University of the Netherlands & Twente University, PO Box 2960, 6401DL Heerlen, the Netherlands, susan.mckenney@ou.nl

Kimberley Gomez, University of California, Los Angeles. Box 951521, Los Angeles, CA 90095-1521. kimgomez@ucla.edu

Brian Reiser, Northwestern University, Room 339, 2120 Campus Drive, Evanston, IL 60208-0001

**Abstract:** Design charrettes feature hands-on activities for capturing, analyzing and developing the knowledge, values, and vision of its participants. In this workshop, using a design charrette approach, participants will (a) consider how their research informs formal and informal practice, (b) learn about a variety of outlets for bringing research to practice audiences, and (c) consider who might benefit from learning about the research. Participants will discuss different modes of research-practice interaction, and their implications for the production and use of new knowledge. Individuals will analyze their current approaches to knowledge dissemination for use and participants will share existing strategies to stimulate fruitful and mutually informing research-practice connections. Participants will design their own research-practice connections, both through individual projects and through the ISLS community.

## Background

Educational research has long been criticized for its weak link with practice. Explicit attempts to close the research-practice gap have been underway for over four decades. These efforts have included design team approaches and researcher-teacher models aimed at making practice the object of investigation. Shrader, Williams, Whitcomb, Finn and Gomez (1998), for example, described a research for practice approach, in the Learning Sciences, that involved working collaboratively with teachers to design, enact, and refine science materials. Lampert (1992) and Ball (Lampert & Loewenberg-Ball, 1998) taught in classrooms and made their practice an object of study. Yet, while a robust, growing body of knowledge now exists to describe how policymakers and educators access, value and use research, much of the work that would be useful happens in silos, is known to a few, and is rarely leveraged by policy makers, school administrators and teachers to improve educational practice. We have learned much about what aspects of evidence-based practice and research utilization in other fields can be applied to education, yet, how to share current knowledge, generate and share new knowledge, and walk the knowledge-sharing communicative path between research and practice remains a significant challenge in the Learning Sciences. Internationally, enormous efforts have been launched to improve the practical relevance and actual use of research knowledge, especially in the fields of education and health care. However, both the scholarly insights and effective practices have yet to become widely spread.

In addition, even though researchers are becoming increasingly required to disseminate research findings among practitioners, few graduate programs devote serious attention to preparing researchers for the task and many researchers find it daunting. The proposed workshop addresses this problem by (a) sharing insights and practices from existing projects that stimulate fruitful research-practice connections during knowledge production and/or use; and (b) facilitating the design of strategies through which ISLS can tighten research-practice connections, both individually and as a community.

## Theoretical underpinnings

Informed by the work of Rogers (1969), and review of over 2600 research studies, Havelock (1971) published a landmark report on the dissemination and use of scientific outputs. Havelock identified seven general factors that could account for how scientific outputs are taken up and used: linkage, structure, openness, capacity, reward, proximity and synergy. He identified several modes in which those factors can be seen: social interaction; research, development and diffusion (RDD); and problem solving. More recently, attention has also been given not only to the use of scientific knowledge for educational practice (e.g. Hargreaves, 1999; Levin, 2004), but also to how it is produced (Vanderlinde & van Braak, 2010). Specifically, there is growing attention for how researchers and practitioners can collaboratively bear the responsibility for both producing and using relevant knowledge in education.

Burkhardt and Schoenfeld (2003) identify seven models to describe the relationship between research and practice, five of which feature strong divisions of labor, relate more to evidence-based practice and align well with the RDD model described by Havelock (the reading model; the summary model; the professional

development model; the policy model; the 'long route') and two of which show more characteristics of Havelock's problem solving model (design experiments; and the engineering model). De Vries and Pieters (2007) add an eighth model which shares elements of Havelock's social interaction model and highlights equal collaboration: knowledge communities. Each of these models denotes different assumptions and expectations regarding the roles of practitioners and researchers in the generation and application of theoretical understanding. Taken together, three broad types of research-practice interactions during knowledge production can be distinguished today: RDD, design research and communities.

## Workshop structure

To meet these aims, the workshop is divided into two main stages. The first stage is intended to sensitize and inform participants by sharing insights and strategies from existing projects that stimulate fruitful research-practice connections during knowledge production and/or use. Strategies for sharing (emerging) insights will be discussed in terms of: content (focus), form (products and activities), medium (face-to-face, online, etc.) and time (sustained, bursts, frequency, etc.). During the second stage of the workshop, participants will be encouraged to consider, and design, specific strategies for tightening research-practice connections that can be put into action in the short to medium term. Participants may choose to develop action plans related to individual projects, or to a broader (sub-) set of ISLS work. Participants will be involved in design charrettes that will undertake the tasks of: establishing a focus, considering time, determining the form and choosing the media to enhance research-practice interactions in a project that is currently underway or recently completed.

## References

- Burkhardt, H., & Schoenfeld, A. (2003). Improving educational research: Toward a more useful, more influential, and better-funded enterprise. *Educational Researcher*, 32(9) 3-14.
- De Vries, B., & Pieters, JM (2007). The meaning of conferences, knowledge communities and knowledge conscious schools in a crackled education. *Educational Studies*, 84, 233-240.
- Hargreaves, D. (1999). 'The Knowledge-creating school.' *Journal of Education Studies*, 47(2) .
- Lampert, M. (1992). On teaching , in R. Glaser (Ed.), *Advances in instructional psychology*, 4. Erlbaum, Hillsdale, NJ.
- Lampert, M., & Loewenberg-Ball, D. (1998). *Teaching, multimedia and mathematics: investigations of real practice*. New York: Teachers' College Press.
- Levin, B. (2004). Making research matter more. Educational Policy Analysis Archives. 12(56).
- Shrader, G., Williams, K., Lachance-Whitcomb, J., Finn, L.E., & Gomez, L.M. (1999). Work in the work circle: Collaborative design to improve teaching practice. Paper presented at Spencer Conference on Collaborative Research for Practice, New Orleans, LA.
- Vanderlinde, R., & van Braak, J. (2010). The gap between educational research and practice: views of teachers, school leaders, intermediaries and researchers. *British Educational Research Journal*, 36(2), 299-316.