

# Teachers as designers of technology enhanced learning

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# Teachers as Designers of Technology-Enhanced Learning Materials

Yael Kali, University of Haifa, Mt. Carmel, 31905, Haifa, Israel. Email: yael.kali@edtech.haifa.ac.il  
Susan McKenney, Open University of the Netherlands & Twente University, PO Box 2960, 6401DL Heerlen, the Netherlands. Email: susan.mckenney@ou.nl

**Abstract:** Research on factors affecting curriculum implementation has pointed to the importance of involving teachers, to varying degrees, in shaping the learning scenarios in their own classrooms. While the benefits of Teachers as Designers (TaD) are acknowledged in literature, far less is known about ways of shaping that involvement to yield those benefits. Research is needed to understand how teachers learn through design, how such activities may be supported, and how teacher involvement in design partnerships with researchers impacts the quality of the artefacts created, their implementation, and ultimately, student learning. This workshop speaks to that need by bringing together researchers and practitioners interested in further exploring various TaD aspects.

## Scientific foundations

Teacher participation in design can take the form of near-to-practice involvement in the form of critical reflection on and redesign of one's own practice (Raval, McKenney, & Pieters, 2010); evidence-based customization (Gerard, Spitulnik, & Linn, 2010); or teacher design teams collaborating within an educational affiliation (Voogt, Almekinders, Van den Akker, & Moonen, 2005). Yet teacher participation may also be realized as creating exemplary materials to be used in the classrooms of others (McKenney, 2005) sometimes designed in multi-professional expert teams (Kali, Markauskaite, Goodyear, Ward, 2011). The Teachers as Designers (TaD) line of research is recently gaining increased interest as free online tools that enable simple authoring (e.g. Google Apps) are becoming widespread, and new authoring environments and pedagogical design guidelines for technology-enhanced learning are provided by the Learning Design community (The Learning Design Grid, 2012)

Teacher involvement in educational design stands to yield multiple benefits. First, teachers find reflection on and re-design of their own practice insightful (Davis & Varma, 2008). Consistent with the notions of constructionism (Harel & Papert, 1991) and learning by design (Kolodner et al., 2003), this process, if appropriately sculpted, can contribute to teacher professional development (George & Lubben, 2002; Kali, & Ronen-Fuhrmann, 2011; Mishra & Koehler, 2005). Second, teacher involvement in curriculum design can positively impact the quality of implementation infusing a healthy reminder of practical realities into the design team ambitions (Könings, Brand-Gruwel, & van Merriënboer, 2007), and/or increasing ownership and commitment for implementation (Carl, 2009). Third, high-quality teacher involvement in curriculum and instructional design or customization can yield improvement of student learning (Corcoran & Siladner, 2009; Gerard, Spitulnik, & Linn, 2010).

While the benefits of teacher involvement in educational design are acknowledged in literature, far less is known about ways of shaping that involvement to yield those benefits. Research is needed to understand how teachers learn through design; how teacher design activities may be supported; and how teacher involvement in design impacts the quality of the artifacts created, their implementation, and ultimately, student learning. Existing conceptual foundations for such work are urgently in need of bolstering, and will definitely play a critical role in the future of learning.

This workshop speaks to that need by bringing together researchers and practitioners interested in further exploring various TaD aspects. Participants will share existing TaD research and practice, discuss areas needing additional research, and actively engage in synthesis activities. With the ultimate aim of improving the quality and relevance of research related to this theme, this workshop will help generate a conceptual foundation for understanding the notion of TaD, to be shared among a broader community, possibly via a special issue of a scientific journal.

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