

# Teacher Design Knowledge for Technology Enhanced Learning

*Ontwerpkennis van leerkrachten voor ICT-rijke leren*

Susan McKenney

Workshop held at the Welten conference on learning, teaching and technology: Theory and practice  
November 7, Eindhoven

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# Introduction

- Welcome
- Focus
- Who's who



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# About today's session

- Why offer this session?
- Goals for the next hour
  - Exposure
  - Sensitization
  - Stimulation
  - Why not knowledge transfer?
- Origins of the session content

**Teacher Design Knowledge for Technology Enhanced Learning: A workshop at the Welten conference on learning, teaching and technology: Theory and practice**  
7 November, 2014, ~~Exposon~~ Eindhoven, the Netherlands

*Facilitator:* Susan McKenney

*Purpose:* To explore ways of supporting the work of teachers as designers of technology enhanced learning given a design scenario from, or near, participants' own experiences.

*Structure:* Introduction (15 min); parallel discussions (30 min); plenary discussion (15 min)  
*Tool:* An ecological framework<sup>1</sup> for conceptualizing teacher knowledge for technology enhanced learning design. Derived from a synthesis of existing research in classical design fields, instructional design, and teacher design of technology enhanced learning, the framework can be used: (a) by researchers to study teacher design knowledge and work across projects; and/or (b) by developers and facilitators identifying key areas to encourage/support in teacher professional development programs that involve teacher-designers in specific settings.

Transferable teacher knowledge	Powerful design heuristics	Teacher-designer consciousness and situated experience	Realistic understanding of design practices
<b>Know-what</b> (fundamental knowledge base)	What is design thinking and which models or frameworks are likely to be most useful for teachers in a given situation?	What intuitive knowledge, awareness and experiences do teachers bring with them to design technology-enhanced learning?	What do teachers typically consider when designing technology enhanced learning and what issues do they typically overlook?
<b>Know-why</b> (productive beliefs)	Why is teachers' careful attention to shaping design processes (before and during their enactment), critical for successful outcomes?	Why are teachers more and less aware of their own decision-making rationales in certain situations?	Why do teacher designers make certain kinds of design decisions and how does this change with experience?
<b>Know-how</b> (repertoire for action)	How do healthy design processes proceed (and how similar or different are they from the natural design inclinations of teachers?)	How do teacher design schemas develop and how does this relate to their own intuitive knowledge?	How do teachers use their TPACK during design and in what ways does this influence their overall pedagogical design capacity?
<b>Know-when</b> (judgment of ideas and processes in various contexts)	When should teachers choose, re-assess or change a particular approach to guide the design process?	When do teachers decide to improvise and when are one's own ideas put to use, given the setting and goals?	When do teachers base decisions on tacit (rather than reflective) knowledge, and when do they draw on [other] design expertise?
<b>Know-who</b> (awareness for consulting relevant expertise)	Who should teachers consult for guidance on design processes and/or the products of design in certain contexts?	Who might enrich and inspire teacher awareness or educational connoisseurship?	Who do teachers consult during different stages of design work and for which main purposes?



# Gearing up

- Group member experiences with teachers as designers?
- Let's form 6 teams around similar types of experiences



# Let's work

- Rotating stations: three sessions, 10 min each
  - Powerful design heuristics
  - Teacher-designer consciousness and situated experience
  - Realistic understanding of design practices
- Teams choose which/how many prompts to discuss



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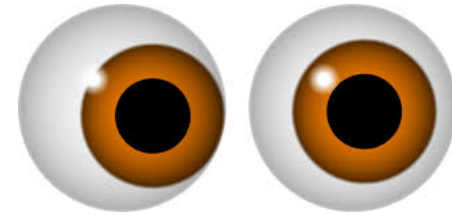
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# Let's discuss

- Overall impressions?
- Questions to group:
  - In what ways did the framework prompts help you explore the design work in your team's case?
  - How might the framework or these activities be improved?
  - Interested in continuing this exploration? How?



# Additional information

- [susan.mckenney@ou.nl](mailto:susan.mckenney@ou.nl)
- <https://sites.google.com/site/teachersastelldesigners/>
- [www.EducationalDesignResearch.org](http://www.EducationalDesignResearch.org)

This workshop and the framework discussed are based on the following publication:

McKenney, S., Kali, Y., Mauriskaite, L. & Voogt, J. (under review). *Teacher Design Knowledge for Technology Enhanced Learning: An ecological framework for investigating assets and needs.*

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