



Design of Technology-enhanced Learning: Integrating Research and Practice

Matt Bower (2017)
Emerald, pp. 472.
ISBN-13: 978-1838679200

Homa Freeman

Curriculum Co-ordinator
Avondale University College, Cooranbong, NSW

The book *Design of Technology-enhanced Learning: Integrating Research and Practice* offers research-based evidence to formulate learning design. The deep and detail-oriented technology-enhanced learning research enables readers to formulate principles that can be applied in the learning design process. The focus of the book is around understanding the nature of technology-enhanced learning design, based on the idea that educators should be able to transfer their design knowledge to a rapidly changing technological context.

Focusing on the key drivers in integrating technology with learning, the book provides evidence in improving learning outcomes such as:

- facilitating personalized and collaborative learning as well as peer-to-peer support;
- facilitating higher-level problem solving and thinking skills;
- promoting engaged learning;
- providing simulations to support experimental learning;
- offering teachers platforms to analyse learning;
- and providing teachers with tools to assist students with special needs.

The book highlights the fact that current educators are teaching a generation who are very comfortable with technology, yet they may not be as 'tech-savvy' as their students. However, it reminds readers that educators have to focus on understanding the effective pedagogical strategies, rather than just technology itself. Therefore, by providing research findings associated with the use of technology, the book aims to enhance the readers' design thinking; and to indicate the pitfalls of using technology.

Chapter 2 and 3 (my favorite chapters)

formulate the underpinning pedagogical thinking. Chapter 2, from a theoretical perspective, scrutinises how different dimensions of technological, pedagogical and content knowledge (TPACK) integrate together. From a pedagogical perspective, behaviorism, cognitivism, constructivism, social constructivism and connectivism are discussed in detail (chapter 3), while a brief explanation is provided on how technological tools can be applied to support each of these pedagogical approaches.

The book discusses the potential of learning technologies; however, educators must have a clear understanding of how technology may impact knowledge acquisition. To achieve this, educators need to have a design thinking that includes frequently reframing the problem, focusing on the solution and centering around the user, and both flexibility and tolerance for ambiguity. Factors such as establishing a clear pedagogical motivation and selecting technological tools based on Technology-Pedagogy-Content Knowledge (TPACK) are discussed as major principles in technology-enhanced learning design.

From a practical perspective, the author discusses the web 2.0 technologies (more focus on blogs and wikies) in detail and elaborates as to how these technologies enhance not only collaborative knowledge building, but also boost students' motivation and engagement, in addition to facilitating feedback and developing multimedia skills.

Considering the fact that pedagogy should be the driver and technology is just a mediating tool to distribute knowledge, the intention of the book is to place the reader in touch with the work of researchers and designers from across the world to learn from their shared insight and wisdom. In short, 'Design of technology-enhanced learning: integrating research and practice' articulates the science and art of learning design through a review of the literature.

This book would be on my recommended reading list for teachers and educators who are not only interested in using technological tools in their classrooms, but also eager to adopt evidence-based teaching. [TEACH](#)

“
educators
have to focus
on under-
standing
the effective
pedagogical
strategies,
rather
than just
technology
itself.”