TPACK In Situ: A Design-Based Approach Supporting Professional Development in Practice

# Details

## Year

2019

## DOI

10.1177/0735633118783180

## Issued

2018

## Language

English

## Volume

57

## Issue

5

## Start Page

## End Page

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## Type

Journal article

## Journal

Journal of Educational Computing Research

## Publisher

SAGE Publications

## Topics

Learning

## Sample

13 different schools from seven municipalities in three Nordic countries (Denmark, Norway, Sweden), totalling more than 66 in-service elementary school teachers, 32 researchers specializing in information technology and learning, subject-specific didactics, or school management from four different universities and more than 1,000 students from various socioeconomic areas.

## Implications For Educators About

## Implications For Stakeholders About

Researchers

# Abstract

Technological pedagogical and content knowledge (TPACK) is a well-known conceptual framework for what knowledge teachers need in order to teach successfully using technology. Most recent TPACK studies address assessment of teacher TPACK by quantitative self-reporting surveys. Such an approach provides little guidance for teachers in how to develop their everyday teaching practice. We argue for a revival of the original TPACK design-based approach and propose a design-based, operationalization of the framework that is situated in action, context specific, and integrated in practical teaching. The approach has been developed, evaluated, and validated in a school development project in a Nordic Elementary School context using design-based research. The project engaged more than 100 professionals: in-service elementary teachers, school administrators and researchers, and more than 1,000 students during 3 years. The theoretical development evolved from rich descriptions of 38 didactic design as delimited units of teaching including planning, implementation, and evaluation of specified learning tasks acted out in practice. Contributions include framing teaching practice as design activity and a TPACK in situ model and methods targeting reflective practitioners. Our proposed approach addresses current limitations of TPACK and is aligned with advocated professional development methods.

# Outcome

"We argue for the revival of a design-based approach for TPACK development, an approach that is situated, context specific, and puts the DD in the foreground. This article contributes to the TPACK community by extending current research in TPACK by suggesting a design-based operationalization of the TPACK framework to support in-service teachers’ professional development in practice." (Authors, 1221)