Digital Didactical Designs as research framework: iPad integration in Nordic schools

# Details

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## Topics

## Sample

"In total, we observed 64 classrooms from preschool to 11th grade in five municipalities in Denmark (seven schools), Sweden (seven schools), and Finland (two schools) taught by 31% male teachers and 69% female teachers. The teacher ages ranged from 27 to 60 with the mean age of 43.2 years.
The class sizes ranged from four to 27 students with a mix of male and female students, except for one class with 27 female students and one class with four male students."
(Authors, 5)

## Implications For Educators About

* School innovation
* Professional development
* Other

## Implications For Policy Makers About

Other

## Other PolicyMaker Implication

Digital tool impact on curriculum, strategy, assessment in schools

## Implications For Stakeholders About

Researchers

# Abstract

In this research, the design of teaching and learning with web-enabled technologies, such as iPads, in 64 one-to-one (1:1) Nordic classrooms was explored using the Digital Didactical Design (DDD) framework. DDD focuses on both teachers' activities and students’ learning activities in the classroom and how web-enabled technologies are integrated into teaching, learning, and assessment. Semi-structured classroom observations were conducted to investigate how teachers apply the elements of DDD in their classroom practice, and what kinds of learning they support. The analysis resulted in three clusters: Cluster A demonstrates integration and alignment toward meaningful learning; Cluster B shows the potential for deep learning but a semi-alignment of teaching, learning, assessment, roles, and technology; and Cluster C indicates non-integration of the five elements. The findings point out that tablet integration needs the alignment of all five DDD elements to achieve meaningful learning. Pedagogy has to evolve to include new uses of the technology: it is a co-evolutionary growth of the five DDD elements together. DDD can be used by teachers for planning, self-assessment or reflective collaboration with peers and by schools to plan, document, evaluate, and rethink the interwoven pedagogy-technology relationship in tablet classrooms.

# Outcome

"When teachers redesign teaching and learning toward deep, meaningful learning with iPads, their roles change, their students’ roles change, classroom activities involve the use of available online and offline resources, and students learn differently. Such changes may conflict with expectations of assessment in the curriculum, standardized testing, and even the basic assumptions held in a school or educational system about what constitutes learning and assessment of that learning. Thus, 1:1 implementations require larger considerations of curriculum, strategy, and alignment with assessment in schools." (Authors, 14)