

Teachers' Perceptions and Teaching Styles as Facilitators and/or Barriers to ICT Usage in the Classroom (Poster)

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Abstract

The study examines teachers' perceptions towards new pedagogy among 22 college professors, after one year experience in a new Active Learning Classroom (ALC) designed for teacher training. Data was collected via structured personal interviews. Mixed qualitative and quantitative analysis was used in order to recognize and classify teaching patterns, usage of pedagogical and technological innovations and barriers/facilitators to teacher ALC usage. The relationships between teaching patterns, demographic factors and professional factors were examined using TPACK framework as an underlining model. Initial analysis identified four teaching patterns related to TPACK sub-forms and recognized a correlation between ALC usage frequency and teacher choices of pedagogical and technological traits in the classroom.

The "Program for Adapting Teacher Education Colleges for the 21st century" was introduced by the Israeli MOE on 2011, encouraging teacher education colleges to expose the students to "new pedagogy" techniques and to train them in intelligent usage of ICT (Ministry of Education, 2011). Achva Academic College has built a special Active Learning Classroom (ALC) designed to provide the environment and tools to encourage cooperative learning, to support any pedagogic requirement and to promote innovative pedagogy (Kolloffel, Eysink, & de Jong, 2011).

Acceptance of the methodological changes and experiencing innovative teaching-learning process, are essential for supplying education students with real-life experience of innovative pedagogies (Fullan, 2001). The effectiveness of the changes depend on pedagogical skills and beliefs of the teachers (Borko, 2004).

During the first year of activity the ALC served as a laboratory for both faculty and staff. The study examined teachers' perceptions towards the ALC, looking for teaching styles, pedagogical and technological innovations and to test barriers and facilitators to ALC usage using TPACK framework as an underlining model.

Participants included 22 college professors who used the ALC, teaching various courses with different groups of students. Semi-structured interviews were administered at the end of the academic year, testing participants' ALC experience. With TPACK serving as the underlining model we identified

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indices of technological knowledge (TK) and pedagogical knowledge (PK) perceptions and tested ALC usage, motivation, strategies, barriers, advantages, disadvantages and perceptions.

We identified two distinctive TK levels (Low Vs. High) and two distinctive PK levels (Traditional Vs. innovative). Integrated results revealed four distinctive teaching styles – Traditional teaching: The teacher uses the ALC as a standard classroom. Limiting teaching: The teacher uses traditional pedagogy but uses the technology innovatively with passive students. He believes that technology is important for teaching. Rewarding teaching: The teacher applies "new pedagogy", but fails to use new technologies. He believes that learning should be flexible and relevant but controls most of the learning process. Enhancing teaching: The teacher applies new pedagogy, using new technologies. Traditional and enhancing teachers apply their perceptions to the full extent while limiting and rewording teachers display a gap between their perceptions and their implementation.

Teachers with higher PK used the ALC 24-32 times while teachers with lower PK used the ALC only 1-4 times during the year.

Our findings suggest that the implementation of "new pedagogy" and using innovative technological tools and methods varies according teachers' PK and TK levels, and their perceptions of teaching and learning roles and their expectations from the teaching and learning processes.

We suggest that becoming enhancing teachers requires structured training, in order to provide TK, PK and hands-on experience.

Keywords: active learning classroom, faculty ICT usage, teaching styles, TPACK.

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