

An Examination of Teachers' Interactive Whiteboards Use within the Scope of Technological, Pedagogical, and Content Knowledge (TPACK)

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Abstract : The aim of the present study was to thoroughly investigate the teachers' interactive whiteboards (IWBs) use within the scope of the technological pedagogical and content knowledge (TPACK) framework based on the school practice observations of in-service teachers collected by pre-service teachers. In this study, teachers' use of IWBs in their classes was investigated by using phenomenography, which is a qualitative research method design. The participants of this study consisted of teachers working in a province of Turkey. Within the scope of the study, 337 teachers from 61 different schools were observed by preservice teachers during School Experience classes. The teachers use the IWBs to review the points not understood by the students, to share knowledge, to enhance motivation, to maintain student participation/practice and for in-process, formative assessment. The problems teachers face while using the IWBs can be IWB-based (touchscreen problems/frozen image/lack of software), administration-based, student-based and teacher-based (lack of knowledge of use, need for technical support). It is considered that technological knowledge (TK) is important in solving the problems experienced with IWBs, and technological pedagogy knowledge (TPK) and technological content knowledge (TCK) are important in using the IWBs in an interactive and pedagogically meaningful way that uses IWBs affordances and is relevant to the instructional objectives.

Keywords : TPACK, technology integration, interactive whiteboard, technology in education

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