Educational Leaders Best Practices for Encouraging Teacher Technology Use in Middle School Classrooms

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Abstract

Technology presents an exciting opportunity to educational environments but also challenges that must be addressed. This paper analyses the iPad as an instructional tool in a New York State K-12 public learning environment. We incorporate theoretical concepts, such as empowerment, that relate to teachers' use of instructional technology. Explanations of the six factors of empowerment are described along with the theory's origins and the creation of the teacher empowerment scale. We study the educational ecosystem's complexities as well as the pressure many schools are under to adopt technology.

The importance of teachers and the role they play in the successful implementation and appropriate use of instructional technology is explored. Details regarding the background of the New York State school district's current technology opportunity will be presented along with an explanation of the challenges they faced. This paper also reveals the objectives that educational leadership hoped to achieve as a result of the incorporation of the iPad as instructional technology.

We develop a new construct called "teacher technology use" (TTU) which represents teachers' use of instructional technology in the classroom. Case study and quantitative analysis was employed to assess TTU. Thirty teachers took part in this technology initiative. Twelve teachers were interviewed for one hour each and all thirty teachers participated in a survey. The teacher empowerment scale was used as a means to understand the affect empowerment had on technology use. The results of this survey are discussed.

Through regression and mediation analysis, it was concluded that teacher empowerment was predictive of TTU. Specifically, teacher's perceived impact accounted for significant variance in overall technology use. Technological innovation provides exciting possibilities for TTU. However, as this investigation discovered, the role of the teacher remains essential. Teacher empowerment proved to be pivotal for effective TTU.