Confronting Barriers to P-12 Mobile Technology Integration

Wendy Loewenstein

University of Nebraska at Omaha

Abstract

Mobile devices are not being utilized to their full potential in P-12 classrooms. Researchers have identified various barriers that prevent educators from effectively integrating technology in learning environments, such as resources, attitudes, and beliefs. This research brief investigates how district leaders can support P-12 educators in breaking down these barriers and examines how they can be addressed in order to create powerful 21st Century, learner-centered classrooms.

does not provide quick access of information to students who have their way through childhood. se active, digital learners conflict with traditional teaching styles and preferences of educators (Sheninger, 2014, p. 15). By acknowledging this gap and accommodating

the nation that have started mobile device initiatives involving faculty and students (Educase, 2012). In response to the increase of mobile devices in higher education, many Midwest school districts are beginning to implement initiatives that will put technology in the hands of students in order to prepare them for these high-tech learning environments. For example in Nebraska, Springfield Platteview Community Schools iPad initiative is for educational purposes and to recruit students to their district (Braden, 2012). Bellevue Public Schools has implemented an iPad Academy in which teachers can apply to participate in the academy and receive iPads for their classroom along with technology integration support from the districts instructional technology team. Westside Community Schools is currently awaiting school board approval of a plan that will provide iPads to Kindergarten through 6th grade students (Anderson, 2014). This access will put Westside Community Schools on the map as the only district in the Omaha, Nebraska metropolitan area that provides access to mobile devices for all students. Locally and nationally, districts are at various stages of planning the integration of mobile devices beyond iPads. Council Bluffs, Iowa; Leyden, Illinois; and Richland Two, South Carolina, all announced in 2012 that they were going 1:1 with Chromebook laptops (Vander Ark, 2012). As found on the Council Bluffs Community School District website (2014), Council Bluffs will expand their 6th-12th grade, 1:1 initiative to include 3rd-5th grade students in the fall of 2014.

Regardless of the type of mobile devices that are used in a district, they are not being utilized to their full potential in P-12 education. In response to this phenomenon, researchers have identified various barriers that prevent educators from creating effective

adoption of the Internet. In 1995, only 14% of adults polled were users of the Internet. In 2014 that number grew to 87%. Even more staggering is that 97% of young adults (ages 18-29) utilize the Internet today (Fox & Rainie, 2014). According to a study released by Nielsen (2013), 70% of teens (ages 13-17) own a smartphone. For a frame of reference on the rapid increase of smartphone adoption amongst this age group, 58% of American teens owned a smartphone in 2012, and 36% in 2011 (Kerr, 2012). Students are accessing the Internet at home and on the go, utilizing various mobile devices for entertainment and communication purposes. Educators must leverage technology that is already in the hands of our students in order to engage learners. This can be accomplished through building teacher self-efficacy with technology.

Teacher Self-Efficacy

In order for technology to be utilized in the classroom, district leaders need to

emphasizes the importance of this second-order barrier by identifying a strong

decisions, and classroom practices. Teacher beliefs influence professional practice, which is why confronting these beliefs is an integral step in integrating new technologies in the classroom. Bandura (1997) defines self-

learn or perform actions at certain levels. Bandura emphasizes that self-efficacy is not

-level, but on the *belief* that one can complete a task. This makes self-efficacy a predicament for technology integration in that if a teacher believes he/she can accomplish technology integration then he/she will attempt it. But, if the teacher does not have the skills to do so, then he/she will not even try it. A 2010,

professional learning must and concerns about technology in order to increase the likelihood of technology adoption in individual classrooms.

Technology Support

Other effective teaching practices that support students in the classroom, and will do the same for teachers as technology learners, are follow-up and support. When students learn a new concept or skill, they have to work independently to practice their new learning,

learning process. Technology professional learning for teachers does not always follow this effective teaching practice. Massive, large-group, stand-alone technology trainings are not an effective use of professional learning funds if teachers are not expected to follow-through and do not have an identified support system. Support can be provided through the establishment of PLCs, the awareness of technology teacher leaders in the building, identified personnel that provide technology support, online tutorials and examples, books, etc. Having a variety of support access points that accommodates the variety of teacher learners and their stages of concern will provide a return on investment in these support systems in that teachers will accommodate the variety of teacher learners

outside their school, that can provide the help they need, can have a dramatic impact on the success of technology integration & Mouza, 2008, p. 31). Having a support plan in place that is clearly communicated to teachers in a variety of different formats will indicate that technology integration is a priority and expectation and respect the individual teachers learning styles.

natural that the curriculum and instruction team can share what types of technology would best support the curriculum. The technology department can search for the best device that would accomplish this while the staff development department can create a plan to reach teachers at varying levels of ability in order to build efficacy. This central office collaboration truly models the type of collaborative efforts that teachers and students do every day to expand learning and problem solve.

Applications for Metropolitan Omaha Educational Consortium

Currently, Metropolitan Omaha Educational Consortium (MOEC) has task forces created for assessment, curriculum and instruction, executive steering, human resources, staff development, student services, and technology. MOEC districts should take further advantage of the professional networks that are already established within the task forces and go beyond idea sharing, but consider resource sharing as well. Even though these task forces meet regularly and have productive discussions on current happenings, the discussions need to shift to a larger perspective on how to improve more teachers practices and ultimately impact more throughout the districts in the consortium. In turn, more productive and innovative learning environments can be created to truly ignite the paradigm shift that needs to occur in all classrooms across the city. Pockets of innovation in one classroom, one school, one district, are no longer acceptable when innovation should be occurring in every classroom, school, and district. MOEC has the potential to work together to create this visiona

Utilize the partnership with the University of Nebraska at Omaha for collaborative research endeavors in which the effectiveness of professional learning practices can be measured and data can be used for future decision-making. Large research grant proposals can be submitted in order to receive additional funding for professional learning and technology support for multiple districts. Research could lead to training for district personnel on how to effectively deliver technology integration professional learning in districts across the city. This would pool together the knowledge and research-based practices from UNO. This partnership would be able to create effective technology integration training plans that seem less expensive and more effective than flying in internationally known motivational speakers whose message is forgotten days later.

The Partnership for 21st Century Skills (2009) articulates that a focus on creativity, critical thinking, communication, and collaboration is essential to prepare students for the future. It is imperative for

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Author's Information

Wendy Loewenstein is currently the Coordinator of the IDEAS Room in the College of Education at the University of Nebraska at Omaha. Within this role, she provides professional learning opportunities for the faculty and candidates of the College of Education in the area of educational technology. In addition to these roles, she also teaches graduate and undergraduate courses for the Library Science department. Wendy has taught in both elementary and secondary buildings as a school librarian and English teacher. She has also held various leadership roles within the buildings she has taught and at the district level.