Chapter 20
Technology Integration and Urban Schools:
Implications for Instructional Practices

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ABSTRACT

With the call for educational reform in American public schools, various school districts have embarked on the process of reforming classroom instructional practices through technology to enhance quality education and student learning. This article explores the implications for educational technology practices within the context of urban schools. Additionally, this article highlights the need for administrators, policy makers and other educational stakeholders to reflect on effective ways to eliminate inequities and the gaps that exist between high and low Social Economic Status (SES) schools and teachers related to practices, resources, training, and professional development.

INTRODUCTION

The restructuring of the educational learning environments within the past decade has produced a growing emphasis on a type of learner that has been characterized as the urban learner. The urban learner is best defined in the context of socially-related problems including poverty, structural and institutional racism, class, and gender bias (Obiakor & Beachum, 2005). These learners tend to fall behind socially, developmentally, economically and academically (Obiakor & Beachum, 2005). While public urban schools have realized some success in Internet access and technology resources (Parsad & Jones, 2005), evidently, over time, it is far easier to acquire hardware, software, and access than it is to capture the potential of technology to bring about significant student learning outcomes (Cuban, 2001; Keengwe, 2007; Oppenheimer, 2003).

The major challenge facing teachers is how to integrate technology to help students learn well and become actively involved in the teaching and learning process (Bauer & Kenton, 2005;

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Keengwe, 2007; Tulloch, 2000). For technology to have a greater impact within the public educational system, teachers and students alike must not only have access to technology, but also have access to technology in a contextual matter that is culturally relevant, responsive, and meaningful to their educational practices. To this end, technology tools have great potential to narrow the achievement gap of selected student groups in the US educational system (Kulik, 2003; Magolda, 2006).

Amidst the euphoria and craze over the power and potential of educational technology to transform the way students learn, communicate, and the ways in which societies function, there is an increasing debate as to who has access and the consequences of that access. This debate has serious implications for classroom instruction, specifically for teachers and students who work and learn in the low Social Economic Status (SES) school contexts. Students from higher income families have been found to use computers in school and in their homes more frequently than students from economically disadvantaged families (Becker, 2001; Fulton & Sibley, 2003; Jin & Bagaka, 2005). This trend continues to put low SES teachers and students who belong to racially diverse or economically disenfranchised communities at an educational disadvantage.

The educational and academic underachievement of students in low SES schools has been well-documented (Council of Great City Schools, 2008; Johnson, 2002). Despite the constraints on public school funding in most states, schools continue to devote an increasing percentage of their annual budgets to technology resources (Oppenheimer, 2003). However, evidence of digital divide, parallel to historical disparities, continues to distinguish low SES schools from their affluent counterparts (Guttentag & Eilers, 2004; National Center for Education Statistics, 2004). Further, although there are on-going government initiatives to help bridge the information and technological divide, there exist disparities in the ability of American school-children to access and use modern educational technologies.

A historical measure of digital equity has been based on the ratio of the number of computers divided by the number of students. However, a more recent measure involves determining levels and quality of Internet access, quality in equipment, and quality of use. A different dimension of this problem relates to questions about differences in home access to technology that might impact low SES student achievement. Studies conducted by Bauer and Kenton (2005); Becker (2001), and Finneran (2000) established that low SES schools are more likely to use technology for drill and practice, whereas high SES schools use technology in innovative teaching strategies. Further, high SES students are more likely to use technology for school assignments, e-mails, and relevant educational programs. Pinar (2004) reports that computer technology is often used for remediation, to drill, and to demoralize students into passing standardized test, contrary to promoting quality teaching and active student learning. Further, the current use of technology such as computer tools in low SES schools generally helps its users (students) to become disengaged and alienated subjects, lowering their motivation to learn. Additional supply of computer tools and software cannot change the face of learning; many questions remain unanswered as to whether or not the large financial investments in technology has impacted student learning (Burnham, Miller, & Ray, 2000). Therefore, there is need to motivate, train, and equip educators with the skills necessary to enhance proper use and integration of computer tools into instruction (Keengwe, 2007).

A National Consideration of Digital Equity report prepared by International Society for Technology in Education (ISTE, 2007) in collaboration with Macro International suggests that when considering the role of technology in development