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.

Keywords: Computer Tools, Educational Technology, Professional, Professional Development, Student Learning, Technology Integration

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; 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

DOI: 10.4018/jicte.2010070105

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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 instruc-
tion, 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 under-
achievement 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 ac-
cess, 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 prac-
tice, 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 col-
aboration with Macro International suggests
that when considering the role of technology in
development of the 21st-century learner, digital
equity is more than a comparable delivery of
goods and services, but a fair distribution based
on students’ needs. The report offers suggestions
for addressing the issue of digital issue such as
technology training workshops for teachers.
The report also recommends the following five
strategies toward digital equity:

(a) Legitimize the significant role culture plays
in students’ educational experience
(b) Continue to challenge perceptions about
the role of technology in education
Opportunities and Opportunity Cost in Preparing Millennium Teachers
www.igi-global.com/chapter/opportunities-opportunity-cost-preparing-millennium/12296?camid=4v1a

The Development of a Virtual Farm for Applications in Elementary Science Education
www.igi-global.com/article/development-virtual-farm-applications-elementary/65531?camid=4v1a