The Impact of Computers on Student Learning Behaviors with reference to MCA students in PCMC area

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Abstract :
The purpose of this study was to determine the impact of laptop computers on student learning behaviors. This study is to analysis how computers play effective role in students leaning abilities. Many times student use mobile or laptops for study but the role of desktop also cannot be denied. Hence this study is effort to understand utility of computers and impact of capability of academic outcomes.

Keywords: Computers, Learning environments, Personalized learning**,** Technology in education, E learning

I) Introduction

Technological advances, such as more powerful personal computers, directly affect the way people live in this information age. In the analysis of Fifty Trends Now Changing the World, Cetron and Davies (2001) noted that technology is increasingly dominating both the economy and society. Schools are no exception. The Digest of Education Statistics (National Center for Education Statistics, 2000) reports that the percent of students using computers at school more than doubled between 1984 and 1997. Similarly, Education Week notes that the United States, along with Australia, leads the world in the number of students per computer, with a ratio of five to one in 2003 (Technology Counts, 2004).

Students' lives today are filled with technology that gives them access to information and resources 24/7. Students are able to create multimedia content and immediately share it with the world and participate in social networks where people from all over the world share ideas, collaborate, and learn new things. Outside of the classroom, students have the freedom to pursue their passions in their own way and at their own pace. Opportunities for today's students are limitless, borderless, and instantaneous (Office of Educational Technology, Department of Education Government of Maharashtra, 2010) so it only logical that their learning environment should reflect their everyday lives. Educational Technology in the field of Education is calling for a 21^{st} Century Model of Learning Powered by Technology (2010). This model calls for engaging and empowering experiences for all learners through the power of technology to provide personalized learning instead of a one-size-fits-all curriculum, pace of teaching, and instructional strategies. In order for this to happen, students need access to technology that mirrors their everyday life and the reality of their future. The Office of Educational Technology through the Department of Education Government of Maharashtra is recommending that students and educators have adequate broadband access to the Internet and adequate wireless connectivity both inside and outside of College

II) Review of Research and Development in the Subject:

Across Colleges in every grade and in every subject, students involved in one-to- one initiatives outperformed students in all other tech-distribution initiatives; however how the implementation of one-to-one initiative is implemented is equally important (Demski, 2012). “s tend to amplify what is already taking place in Colleges,” says Mark Warschaurer (2005), associate professor of education at the University of California-Irvine; “Whatever a school is doing well, it can probably do better with s” (p. 34). computers facilitate the kinds of learning, thinking and analysis that today’s world demands in the workplace. The computers give students “plentiful data at their fingertips” (p. 35) and they learn to access information, analyze it, critique it, and work into a wide variety of authentic products.

The literature about one-to-one initiatives demonstrates that although there is no significant effect on student achievement, student learning behaviors are positively impacted. Students are more engaged due to personalization and are demonstrating their knowledge through deep, rich learning experiences. Teachers indicated that there is increased communication and interaction in student-to-teacher and student-to-student relationships.

While there are exceptions to the rule, computer programs in general have not had any appreciable effect on student test scores. Even in Maine, whose achievement test scores are already the highest in the United States, scores failed to rise in the first phases of the state’s program (Warschauer, 2005). An impressive program in California was also examined and did not show gains in achievement test scores (Warschauer, 2005). An exception to this rule are writing scores. Bryan Goodwin (2011), author of *One-to-One Programs Are No Silver Bullet*, said writing scores “edged up 3.44 points (in range of 80 points) in five years” (p.78). Studies by Lori Holcomb (2009), assistant professor of instructional technology at North Carolina State University and author of *Results and Lessons Learned from 1:1 Initiatives: A Collected Review*, found that students in one-to-one programs earned significantly higher test scores and grades for writing. The percentage of students who produced writing samples that met or exceeded writing performance standards for their grade rose from 70% in fall to 92% the following spring. The number of students who met performance standards over the course of one year increased 22% (Jeroski, 2003, as cited by Holcomb, 2009). The reason for this increase is that students spent more time using their s to write, edit, and reflect on their writing (2009).

“The evaluators speculated that the reason other subjects have not shown measurable growth could be that the state assessment does not measure the 21st century technology skills that initiatives promote,” says Goodwin (2011, p. 78). Warschaurer (2005) agrees with Goodwin: “The learning advantages that s bring to students through greater ease in searching for information, using multiple media, and revising writing – do not necessarily show up on paper-and-pencil tests. And second, because programs are still in their infancy, and almost any technological innovation takes a number of years to have a full impact” (p. 34). The benefits and impact that 24/7 access to computers bring cannot be measured on state achievement tests. Joe Hofmeister, technology director at Cincinnati Country Day School, says, “If a kid gets excited about Hamlet because he worked on set design on his tablet PC in class, or he got to speak with actors playing Hamlet in the Globe Theater in London via ideoconference, how do you measure that? Passion is a hard thing to measure” (O’Hanlon, 2007, p. 28).

One-to-one programs make a difference outside school walls, and the benefits ultimately spill out to the community and into individual homes. Anita Givens, senior director of instructional materials and educational technology at the Texas Education Agency, explained, “We hear stories that parents have been able to get better jobs by learning how to use a computer with these s – that they’ve gotten raises” (O’Hanlon, 2007, p. 78). This rings true with what popular

author Jim Collins (2001), author of Good to Great says about technology, "When used right, technology is an essential driver in accelerating forward momentum" (p. 159). The impact of computers is allowing students to become more engaged in their learning and provide optimal, personalized learning experiences. When students have access to computers, their classroom walls expand globally and their learning behaviors improve. The information students have access to, combined with the multiple ways of demonstrating their knowledge, results in deeper learning for the students and increased communication with their teachers. Students participating in one-to-one programs demonstrate higher levels of engagement, and engaged students spend more time on task, work more independently, enjoy learning more and take part in a multitude of learning activities at school and home (Warschauer, 2005). Lisa Wilson, director of Freedom to Learn, Michigan's one-to-one initiative, observed many classrooms and found that technology-equipped students are more in engaged in the education process. "I have never witnessed such a powerful transformation as now," she said. "I am in awe when I walk into the classrooms and see what these students are accomplishing, where students go with learning. There is no question that this is spurring a new way of learning. It's like night and day – students are fueled by their own drive and their own capacity to learning" (O'Hanlon, 2007, p. 28). Wilson adds that a major difference is the absence of downtime in the classrooms. "The moment they walk in the door, they are learning. The students are completely engaged, and when they are engaged, things happen" (O'Hanlon, 2007, p. 28).Studies by Holcomb (2009) showed that many one-to-one program ms have reported a decrease in absentee rates while Goodwin (2011) and O'Hanlon (2007) found that discipline problems decreased as well because students are engaged in the learning process instead of finding ways to get in to trouble. Chrystalla Mouza (2008), author of *Learning with s: Implementation and Outcomes in an Urban, Under-Privileged School*, observed that students became more motivated to complete their schoolwork and often went beyond required assignments, thereby improving the quality of their work. Thomas Greaves, CEO of the educational consulting firm The Greaves Group, suggested that "The student using technology is better able to personalize their learning than a teacher is" (Demski, 2012, p. 34). Students are more engaged because they have choice in how they represent their learning and understanding.

Technology provides an outlet to provide for a more personalized learning environment; Demski (2012) explained that personalizing learning is *not* individualized learning in which students share the same learning goals but progress through the curriculum at their own pace. Nor is it differentiated instruction where students share learning goals but receive instruction tailored to their individual learning needs. Will Richardson (2012), the cofounder of Powerful Learning Practice, a program that offers professional development to educators around the globe about 21^{st} century skills, explained that personalizing learning means allowing students to choose their own paths through a curriculum. The personalized learning experience is not just a possibility anymore, but an expectation. Karen Captor, director of the Office of Educational Technology at the Department of Education Government of Maharashtra, explained that access to technology is "the essence and the nature of the opportunity to provide a much more personalized learning environment for students" (Demoski, 2012, p. 34). She continued,

In any personalized learning model, the student – not the teacher – is the central figure. In a technophiles view of a personalized learning environment, students have access to traditional learning resources like books and hands-on materials, and time-honored support from people like

teachers, parents, mentors, coaches, and schoolmates. But critically, they have ubiquitous access to technology, which allows them to connect to learning communities, information management and communication tools, personal learning networks, information and data, expertise and authoritative sources, online tutoring and guided sources tailored to their needs, knowledge-building tools, and peers with common interests (Demoski, 2012, p. 34).

Personalized learning environments are powered by a student-centered classroom in which students have choice in what they learn, how they learn, and when they learn. When students have direct access to a computer, the learning switch is always on and there is a chance to constantly keep learning in motion. Richardson (2012) explained, "The ability to learn what we want, when we want, with whomever we want as long as have access creates a huge push against a system of education steeped in time and place learning" (p. 23). Personalization allows for a learning experience to be self-paced and diagnostically driven while still having the ability to adapt to a student's specific learning styles, interests and backgrounds (Demoski, 2012). When students have 24/7 access to computers and choice in how they demonstrate their understanding, learning becomes personalized for all learners.

In a personalized learning environment fueled by student choice, each child follows a rubric that covers areas such as standards, learning outcomes, work ethic, and general requirements for assignments. Learning such as this requires students to create something new, to reflect deeply on their efforts and assess their work and progress as they learn. Personalized learning is a fundamental part of developing skills and dispositions that continue a learning process after a class ends (Richardson, 2012). Personalized learning results in a deep and profound learning experience that is richer than memorizing facts and spitting them out on a paper-pencil test.

III) Significance of the study

Recently, a debate has begun over whether in-class s aid or hinder learning. While some research demonstrates that s can be an important learning tool, anecdotal evidence suggests more and more faculty are banning s from their classrooms because of perceptions that they distract students and detract from learning. The current research examines the nature of in-class use in a large lecture course and how that use is related to student learning. Students completed weekly surveys of attendance, use, and aspects of the classroom environment. Results showed that students who used s in class spent considerable time multitasking and that the use posed a significant distraction to both users and fellow students. Most importantly, the level of use was negatively related to several measures of student learning, including self-reported understanding of course material and overall course performance. The practical implications of these findings are discussed.

IV) Objective:

1. To study does the program have an impact on students' grade point average?
2. To study does the program have an impact on students' end-of course grades?
3. To study does program have an impact on students' essay writing skills?
4. To study does the program have an impact on students' standardized test scores?

V) Methodology

The purpose of this qualitative research study was to examine the impact of computers on student engagement as perceived by classroom teachers. Specifically, this study examined the impact of unlimited access to computers on student learning behaviors for middle school and high school

students through a subjective view from their classroom teachers. The data collected from this study were duplicated data from a study the researcher was co-researching titled, "The Impact of Technology on Teaching Pedagogy."

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