
Computer Based Technology And Classroom Assesment

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Abstract

This study aims to identify and understand the computer based technology and classroom assessment. Computers can also help provide students with greater access to test items, maintain records, and explore data . The method used in this study uses a library method or approach (library research). Data obtained through observation and literature study. The results showed that The five ways in which computers can assist teachers with formative assessment during instruction. These uses include diagnosing students' misconceptions, polling the class about their knowledge, recording students' writing process, providing formative feedback on student products, and observing students as they work on assignments diagnosing..

Keywords: *Computer Based Technology, Classroom Assessment*

INTRODUCTION

The presence of computer-based technologies in schools has increased dramatically over the past twenty years. In the mid- 1980s, schools had approximately one computer for every 100 students. Today, that ratio has decreased to approximately one computer for every four students. At last count, more than 1,000 schools had introduced laptop programs in which every student and teacher is provided with a portable computer. The widespread availability of computers in schools creates opportunities for teachers to increase the efficiency, accuracy, and scope of the assessments they conduct during all phases of the instructional process. Computers can be used to help teachers get to know their students, to collect formative information during instruction, to assess outcomes of instruction, and to communicate with parents and guardians. Computers can also help provide students with greater access to test items, maintain records, and explore data. And the Internet can provide access to a wide variety of lesson plans, resources, and assessment instruments. Besides aiding efficiency, technology can break down traditional barriers, enhancing the value of products and services. One such barrier was the age-old relationship between richness and reach (Evans & Wurster, 2000).

The prevailing conception of education is that of a process that helps change students in desirable ways. To define the ways in which teachers are expected to help students change, schools develop a curriculum. The curriculum describes the skills and knowledge students are expected to learn in school. To help students develop the skills and knowledge described by the curriculum, teachers employ a variety of instructional strategies.

In this model of education, teaching and learning begin with a curriculum that is delivered through instruction. Earlier, it divided the instructional process into three interrelated components: planning instruction, delivering instruction, and assessing student learning. Teachers refer to the curriculum during the planning phase to determine what they are to teach, and then select instructional methods they believe will best help foster desired changes in students. These methods are then applied while delivering instruction.

Recently, teachers have also begun using computers to assess student learning. As will be described more fully below, a variety of computer based tools have been developed to help teachers diagnose problems students are having within a specific area of the curriculum. Computer based tools are also used to efficiently collect information about students' current state of knowledge and understanding of a specific content area and provide immediate feedback that teachers can use to modify instruction. Increasingly, state testing programs are also using computer-based tests to assess the outcomes of instruction.

In addition to having an impact on curriculum and instruction, computer related tools are also used by teachers and administrators to support communication and productivity. While planning instruction, teachers use Web browsers to access information over the Internet and develop worksheets or other instructional materials using a word processor. To communicate with parents, teachers use e-mail and create newsletters using word processors or graphic layout software. And to develop individual education plans, teachers access students' records through a database program and correspond with counselors via e-mail. Rather than fitting neatly into any one part of the model of education, the use of computer-based tools to support communication and productivity surrounds the model. But learning how to use new technology once is not enough. Businesses that currently use technology routinely upgrade to remain competitive. Those businesses that do not yet use technology eventually will. Thus, job entry requirements are likely to increase continually, as they have for the past several decades (Moe & Blodget, 2000).

Computers are often referred to as a tool that can enhance instruction. In reality, a computer is more like a toolbox than a single tool. A computer is capable of running a wide variety of software applications. Computers can also provide access to a vast array of resources and applications available on the Internet. Whether they reside on the Internet or on a computer's hard drive, these resources and applications are the tools teachers can use to enhance assessment.

RESEARCH METHODS

The method used in this study uses a library method or approach (library research), Literature study or literature can be interpreted as a series of activities that regarding the methods of collecting library data, reading and recording and processing materials research (Zed, 2003:3).

In literature research, there are at least four main characteristics that the author need to pay attention to, among others: First, that the author or researcher is dealing directly with the text or numerical data, not with direct knowledge from the field. Second, library data is "ready to use" means that the researcher does not go directly to the field because the researcher is dealing directly with data sources in the library. Third, that library data is generally a source of secondary, in the sense that the researcher obtains material or data from second hands and not

data original from the first data in the field. Fourth, that the condition of the library data is not limited by space and time (Zed, 2003:4-5).

Based on the foregoing, the data collection in the research This is done by reviewing and/or exploring several journals, books, and documents (either in the form of print or electronic) as well as other sources of data and/or information considered relevant to the research or study.

RESULTS AND DISCUSSION

To learn about students' cognitive skills and knowledge at the start of the school year, teachers can turn to two sources of information. By reviewing students' past test scores, particularly on end-of-year state tests, much can be learned about students' strengths and weaknesses. Most state testing programs and standardized tests make efforts to return test results to teachers prior to the start of a new school year so that teachers can use this information to identify areas in which a student may need additional instruction. In addition to formal test scores, a short quiz or test given during the first weeks of school can also provide valuable information about students' current state of knowledge and understanding. Computers can be useful in analyzing past test scores and administering tests or quizzes. There are at least five ways in which computers can assist teachers with formative assessment during instruction:

1. students' misconceptions.

As students learn new concepts, they can develop misconceptions that interfere with their ability to apply a concept. Teacher-developed and standardized tests provide useful measures of whether or not a student understands a given concept. However, for students who perform poorly, these tests generally do not provide useful information about why students have performed poorly. Recently, several organizations have begun developing computer based tests that are designed to help teachers diagnose students' understanding and misunderstandings. These assessment tools are often referred to as diagnostic assessments.

The diagnostic assessment tools described above provide teachers with valuable information about student learning in a timely manner, but they require teachers to take time away from instruction so that students can spend 10 to 30 minutes performing a given assessment. At times, however, a quick assessment of student understanding is needed during instruction. One strategy for assessing how well students are understanding a new concept or are acquiring new knowledge is to pose a question to the class and select one or two students to respond. Although this strategy is commonly used, a major limitation is that it depends on a small sample of students to represent the entire class. It would be far better to know how the entire class would respond than only the few students who are called on.

2. Polling the class about their knowledge.

Electronic polling tools enable teachers to do just this. Electronic polling tools consist of either a set of small handheld devices, similar to a television remote control, which communicate wirelessly with software running on a teacher's computer. A teacher poses a question and presents students with answer choices, and students then respond using their handheld devices. The software tabulates the students' responses and provides teachers with an immediate summary. Electronic polling systems are often used with an LCD projector, which displays the question and response options, although the use of a projector is not required.

Polling the class about their knowledge. Electronic polling tools are useful for learning about students' understanding or knowledge. By taking a few minutes to pose a problem that students

must solve or asking a series of questions about the book or historical event that the class has been discussing, electronic polling tools allow teachers to quickly collect assessment information from all students. Depending on the teacher's preference, this information can be collected anonymously or each individual student's response can be recorded. In addition to assessing students' cognitive skills, electronic polling tools can also be used to learn about students' beliefs and opinions. By systematically recording and summarizing students' beliefs, a teacher can use this information as a springboard for further discussion or can make decisions about whether there is a sufficiently high interest level to continue a discussion.

3. Recording students' writing process.

Writing is a process that involves idea generation, drafting, revising, and editing. Research indicates that the use of a word processor throughout the writing process leads to the production of higher-quality writing (Bangert-Drowns, 1993; Goldberg, Russell, and Cook, 2003). Students' use of computers during the writing process also allows teachers to capitalize on three features of Microsoft Word that facilitate formative assessment during the writing process also allows teachers to capitalize on three features of Microsoft Word that facilitate formative assessment during the writing process. These features are Track Changes, Comments, and AutoText.

4. Providing formative feedback on student

When providing formative feedback on an entire set of papers, combining Word commenting and AutoText features can increase the efficiency with which teachers provide feedback on students' writing.

Recording comments electronically has several advantages. *First*, for many people, it is faster to type comments than to write them by hand. *Second*, entire sections of an essay can be highlighted and commented on, allowing teachers to focus the student's attention on the specific block of text in need of revision or editing. *Third*, students often have an easier time reading typed text than handwritten (often cursive) comments. *Fourth*, and perhaps most important, when a student revises a paper in which comments are inserted, the comments are preserved. This preservation allows teachers to view their previous comments as they read the new version, saving considerable time otherwise spent looking back and forth between multiple drafts printed on paper.

5. Observing students as they work on assignments diagnosing.

When students work on a computer, it can be difficult to monitor their activity. Whether students are working on desktop computers in a computer laboratory or on laptop computers in the classroom, screens can block eye contact with students and require teachers to look over students' shoulders in order to observe their work. Several products, however, have been created to help teachers view students working on computers without having to peer over their shoulders. Teachers can use these tools to check whether students are on task or to observe specific students to see if they are experiencing difficulty with the assignment. If students are not on task or are experiencing difficulty, the teacher can then physically move to the student to provide assistance. By asking students to record their thinking about a topic or issue, these tools can also be a useful way to quickly view students' responses and to use these responses to launch a discussion about the topic. When using tools that enable teachers to monitor student work on a computer, it is important to inform students that their work may be monitored. While students are expected to follow their school's technology use policies and to be on task, informing them that their work may be observed builds trust and helps improve the effort they put forth while working on a computer during class time.

CONCLUSION

Increased access to computers in schools creates many opportunities for teachers to increase the efficiency, accuracy, and scope of classroom assessments conducted during all phases of the instructional process. Computers provide teachers with tools to help plan instruction, deliver instruction, examine the effects of instruction, and communicate with colleagues, administrators, parents, and students.

The five ways in which computers can assist teachers with formative assessment during instruction. These uses include diagnosing students' misconceptions, polling the class about their knowledge, recording students' writing process, providing formative feedback on student products, and observing students as they work on assignments diagnosing.

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