This paper discusses creating a successful learning environment in the one-computer classroom. The first section addresses why the one-computer classroom has evolved. The second section covers what an instructor can accomplish with just one computer in the classroom, including the following four elements that are generated by the computer in the classroom educational environment: (1) personal productivity; (2) presentation tool; (3) interactive group software; and (4) learning station. The importance of professional development for educators is emphasized. (MES)
Title: Creating Successful Learning Environments Using a Web-enhanced One Computer Classroom

Authors: Terri Edwards
Instructional Technology Specialist
University of Houston
Deer Park Independent School District
United States
tedwards@deer-park.isd.tenet.edu

Sue Hilburn
University of Houston at Clear Lake
sehilburn@earthlink.net

Caroline M. Crawford
University of Houston – Clear Lake
Houston, Texas, USA
crawford@cl.uh.edu

Note:

This manuscript was previously published in WebNet2000’s proceedings. Following is the reference:

Abstract: One computer classrooms have become the bain of numerous educators since the first computer was placed in the first classroom. Away from all the other computers, sitting quietly in the corner collecting dust. Yet the classroom environment is slowly changing and evolving to include ... a Web-enhanced one computer classroom. The Web-enhanced one computer classroom is a useful environment, once the seeds of disparity are overcome.

Introduction

Since Vannevar Bush (1945) first imagined the creation of an intelligent machine that could hold all of the knowledge in the world and the machine could learn from trying to duplicate a human’s mental process in an artificial manner, man has been moving steadily towards the Information Age. With the rise of the World Wide Web’s existence, and open access for use by the general public in the early 1990s, the information that is accessible by a computer has become insurmountable. Even as early as 1980, Seymour Papert suggested the existence of a simplistic computer that would offer easy access and learning opportunities to the learning environment.
I believe that the computer presence will enable us to so modify the learning environment outside the classrooms that much if not all the knowledge schools presently try to teach with such pain and expense and such limited success will be learned, as the child learns to talk, painlessly, successfully, and without organized instruction. (Papert, 1980, p. 9)

With such prophesies as these, the technologies have led us towards the dawning of the new Information Age, where anything is possible. The one significant difference between the technology and its appropriate and successful use within a learning environment is the influence of the instructor; only the instructors has the subject matter expertise and the instructional design skills to appropriately and successfully integrate the technologies available today. After all, “Computers are not an end in themselves. The goal of technology integration into the classroom and curriculum is not to expose students to computers and the Internet. Technology, by definition, is a tool” (Dockterman, 1998, p. 21). Perhaps the most difficult aspect to help educators realize is that technology is just a tool, just as a pencil or paper or a chalkboard have been touted as revolutionizing elements within a classroom environment, so shall the computer. Yet a one computer classroom is the environment that many educators find themselves in these days, with Web access an element that must be further discussed.

Why the One Computer Classroom?

The drive to place computers in every single classroom has become a driving force over the previous eight year period. Numerous levels of the community heard the need and the desire for
computers in the classroom and a push began to entrench the hardware in the schools to enhance the learning environment. The hardware is advancing by leaps and bounds, but what of the professional development opportunities that must follow the hardware? Educators must have the time and opportunity to delve into the numerous capabilities of a Web-enhanced computer that sits on their desk. There are so many possibilities for a one computer classroom that it is astounding. Yet three overriding themes concerning a one computer classroom have been designated.

What Can an Instructor Accomplish With Just One Computer?

A computer can help an educator accomplish numerous aspects of the professional day’s events. One computer in a classroom environment can be a tool that not only enhances the educator’s daily chores, but also enhances the learning environment. Dockterman (1998) offers at least four elements that are generated by the computer in the classroom educational environment.

- One computer for personal productivity
- One computer as a presentation tool
- One computer and interactive group software
- One computer as a learning station (Dockterman, 1998, p. 23)

The educator has the opportunity to enhance personal productivity of tasks such as student attendance and digital gradesheet software. Further, the educator has the ability to hook the computer up to a television set as a presentation tool, or load the computer with Web-enhanced
interactive group software to enhance active learning environments that could also enhance the computer as a Web-enhanced learning station. Only the creativity and opportunity for professional development opportunities that enhance the educator's creativity will further the integration of technology within the learning environment. However, time must be set aside for the educator's specific professional development opportunities to encourage the integration of the technological endeavors into the curriculum; time is one element of which all educators find lacking and this must no longer be the situation if educators are to enhance not only their technological skills but also the learning environment for their students.

Conclusion

As with all innovative and creative possibilities, a risk must be taken in order to learn and improve upon the opportunities for the learning environment. After all, "The goal is to support an underlying educational purpose. And that underlying purpose and understanding will remain with the students regardless of what happens to the technology" (Dockterman, 1998, p. 22). Creating a successful learning environment is the focus of every professional educator, and all tools must be appropriately used towards the accomplishment of the lesson objectives. The use of a Web-enhanced one computer classroom is merely one way to reach these goals.

References


I. DOCUMENT IDENTIFICATION:

Title: Creating Successful Learning Environments Using Web-based Computers

Authors: Sue Edwards, Sue Hillman, Carlyin M. Crawford

Corporate Source: University of Houston - Clear Lake

Publication Date: 03/30/98

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options below and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2A

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2B

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature: Carlyin M. Crawford

Printed Name/Position/Title: Carlyin M. Crawford, Assistant Professor

Organization/Address: University of Houston - Clear Lake

2700 Bay Area Blvd.

Box 50

Houston, TX 77058-1098

Telephone: 281.283.3567

FAX: 281.283.3567

E-mail Address: Crawford@cl.uh.edu

Date: 01.31.02

http://www.ericit.org/database/specific_release.html