Integrating Technology to Improve Reading & Writing Education, K-9

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Proceedings Abstract

For Roundtable Presentation

This report will describe specific projects focusing on the integration of technology and reading and writing instruction, K-9, that were implemented during our M.Ed. Reading Clinic and various school districts in SE Pennsylvania. Specific examples, products, and reflections will be shared. Discussion regarding participants' experiences and examples will also be encouraged.

Many pre-service and in-service teachers now have access to technology in their schools and classrooms but do not always make the best use of it except as a 'center' or for 'word processing'. Motivated by our observations of this phenomenon in our own districts, field placement sites, and our on-site summer reading & writing clinic, along with work completed by our colleagues, Wepner, Valmont, & Thurlow's recent publication (2000), we decided to incorporate specific technology integration projects into our graduate clinical experience for the preparation of reading specialists.

We will include a review of various materials concerning the plusses and pitfalls of technology use (Bruce, 1997; Glasgow, 1996-97; Greenlaw & Ebenezer, 2001; Himmelfarb, 1996; Matthew, 1997; Moeller & Huppert, 1997; Oppenheimer, 1997; Wepner, Valmont, & Thurlow, 2000). We will describe our program with special emphasis on authentic examples from our clinic and various school districts in SE Pennsylvania such as descriptive videos, closed captioning, I-movies, Web Quests, Electronic Portfolios, along with various software for both reading and writing that we have found effective.

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Here is a brief description of our main applications:

Captioned Programming. Captioned programming can be a highly effective, easily accessible tool for helping students of all ages build their literacy skills. Students can increase their sight vocabulary as they hear and see high frequency words repeated in a meaningful context. Comprehension can be enhanced as students read novel terms in a rich, pictorial context. Students can review videotapes independently and learn at their own pace. With its multisensory presentation and captivating entertainment qualities, captioned programming has the potential to build literacy skills and reduce learning anxiety.

I- Movies, Digital Video Cameras, Digital Cameras, and Web Quests. Teaching Reading in middle school is a challenge. By the time they get to eighth grade, students have seen and heard it all. As a Reading Specialist, I know it is crucial to incorporate the use of technology across the curriculum. Taking courses in computers has been a priority for me in the last few years. I was determined to learn everything I could and pass it on to my students. The University of Pennsylvania offered free courses to our district and teachers took advantage of them. We learned how to create I – movies, work the digital video camera, digital camera, and implement the use of Web Quests.

I-Movies are fascinating to learn and the students love to do them. The digital video camera is used to take pictures and the pictures are transferred to the I-Mac computer through the use of a fire wire. The pictures become clips the students can edit and create their own movie with through the use of sound, music, transitions, word art, and much more. Our students use it for research and the Bristol Project, creating movies about their poems, stories, plays, and more. The possibilities are endless. Please consider learning how to implement this wonderful tool in your classroom. It is not difficult and with time and perseverance it can be done. The use of the digital camera is an option if you do not have access to the digital video camera. Students can use it to take pictures of events or happenings in the classroom or teachers can use it to snap students in action.

Web Quests are wonderful ways for students to research a topic together using the Internet. Not only can you access those that are done for you, but also you can create your own. While reading The
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Diary of Anne Frank, students can access the Web Quest or create one of their own. This workshop will give you some ideas on how to use these tools creatively and effectively in your classroom.

Student Portfolios. A student portfolio is an assortment of student work collected throughout the year. The work shows the growth the student has made in various subject areas. In order to collect and document the student work, an electronic format is most helpful.

Digital cameras were used to photograph students while they completed certain science, social studies, and math projects. When the project was completed, it was scanned into the computer and saved to a disk. Students chose writing samples to be added to the portfolio. The samples showed the stages of the writing process the students used. The published piece was then added to the disk. A list of books read by the student can also be included.

Student reflection is the key element to portfolio use. Children assess the work they chose to include in the electronic portfolio. They should be able to tell why they chose each piece as well as the growth they made. Teacher modeling is essential to this process so the students are clear about what is expected.

At the end of the year, you can invite parents in for the "Portfolio Party". Students can share the portfolio with their parents.

Clinical Application. Through using technology to improve reading comprehension our graduate students in a summer clinical setting presented a staff development workshop on the following:

- Research supported: H.L. Stine (1994) found the use of CD-Rom Storybooks and Whole Language instruction with 2nd grade Ch 1 eligible students made greater gains in vocabulary & comprehension than those receiving WL alone.
- Pros:
- It can be used to develop a variety of skills
- Children can look back easily using 'page up' or 'arrows'
- Programs are 'user friendly' with animation, sound, video, color, and humor
- Multi-lingual
- Play and Pause and Repeat
- Highlighted text
- Fluency
- Sense of success for readers who are struggling
- Graphic Organizers for retellings

- Cons:
- Narrators may read too quickly or may be hard for some children to understand
- Some programs don't allow the user to pause
- Some stories at lower levels are not appropriate for older children who are struggling
- Not all words used by characters are printed which may be confusing

We have found that technology can enhance our students' reading and writing. It is not the be all and end all but it is another tool that is motivating and relevant to our students' lives. As teachers and teacher educators we find it an important aspect of professional development that is ever-changing yet necessary.

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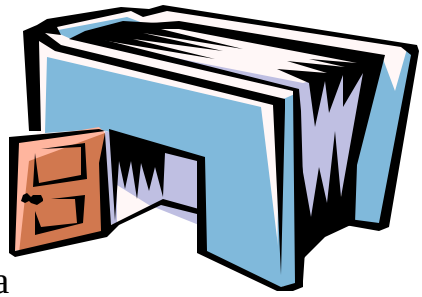

Agenda

1. Introductions
2. Technology in the Classroom & Clinic: Pitfalls & Plusses
3. Technology Used: Brainstorm
4. Success Stories
    i. Closed Captioning
    ii. I-Movies
    iii. Electronic Portfolios
    iv. Internet Sites & Sources
    v. Software
5. Your Experiences
6. Questions & Comments