This paper presents the author's experiences in attempting to adapt to and include the use of technology while teaching reading and language arts skills to students of limited English proficiency and low socio-economic levels. The author used videos for instruction, and prepared traditional lesson plans in language arts and reading. The lessons consisted of previewing questions, soliciting and reviewing vocabulary, grammar skills development, identification and discussion of characters, plot, and possible and alternate endings. Vocabulary, story retelling, and summary charts were prepared with the students, and reviewed on the following day. The students' progress was closely monitored. Because the students had limited literacy ability at the time, the visual images and listening features of the videos allowed the students to concentrate on the stories, without the anxiety caused by the inability to decode written material. They participated more in the language and grammar skills development part of the lesson because they were surer of the accuracy of their answers. This paper discusses obstacles, equipment used, outcomes and benefits. The paper concludes with a brief description of some curriculum strategies through which technology can be used for instructional purposes across the subject areas. (AEF)
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Technology Curriculum in My Classroom

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**Introduction**

This article briefly presents some of my experiences in attempting to adapt and include the use of technology while implementing the reading and language arts curriculum. It concludes with a brief description of some curriculum strategies through which technology can be used for instructional purposes across the subject areas.
Technology Curriculum in My Classroom

by Esther Bonafoux Rivera

The use of technology in the classroom has become a priority in education. Many Federal, state and local government have allocated resources for this purpose. Administrator and teacher training has been wide-spread, and in some states is required for permanent certification. But the question of how and when the technology is to be programmed into the daily instructional planning has not been clearly determined. It is supposedly left to the teacher’s discretion. As a teacher involved in curriculum development, I always tried to develop curriculum, following state and local district guidelines, which would expand instruction through the available technology.

Cuban (2001), states that “...we take the spotlight off ...(the) inhospitable organizational structures that constrain teacher use.” (p 139) My experience as a teacher is that organizational infrastructure restricted my use as an individual teacher of the technology in my classrooms. It also limited the administrator’s ability to support my efforts.

In teaching reading and language skills to students of limited English proficiency and low-socio economic levels, I find that they lack accessibility to information and experience which is organic to the major culture. Linguists and research on this
subject indicate that these students have the same abilities but need to develop experiences that will help them to use language competitively for academic achievement. It is within the bounds of reason to suggest that students seem to always be interested in innovations in technology. They are motivated by its stimulus. It is useful to incorporate technology into student-centered lessons as much as possible.

The first stumbling block was access. First one needed to sign up for the hard equipment because it was in limited supply. One also had to remember to pick it up or remind the Audio-Visual aid that you had reserved it for the particular day and time. Then one had to sign up for the film. If the subject was not available in the school one had to go to Teacher Centers, or libraries to borrow it, and of course one had to return it. The same was true even for overhead projectors. If one were lucky and the equipment and material were available, and everyone remembered your reservations, one still spends a substantial amount of time obtaining the equipment and materials. This time could have been better used in lesson plan development, and curriculum adaptation.
Some administrators were so concerned with the fact that the new technology was just a way for teachers to not teach, that many times one had to schedule it so that one used the technology when the administrators were out of the school building. Other subversive ways were to talk the Audio/Visual aide into letting one keep the hardware, so that one could use it when no one was looking. Of course this meant that one had to make it available to other teachers whenever they wanted to use it, so that one was not free to schedule the time in which it might be more convenient to use the equipment. The teachers still mostly had to obtain the software from somewhere outside of the school, or purchase it themselves.

As a teacher-assigned Audio-Visual Teacher/Administrator, my responsibility included the handling of six televisions, with video equipment, and state-of-the art video projectors but I did not have a permanently assigned room. As the school had four floors, and no elevator, to transport the equipment from the first floor to the fourth floor was a challenge. I put a television in the book storage room in each floor. Although I still had to run from class to the storage room to the waiting class. And, I had to purchase the videos, or obtain them from the Teacher Center because the school did not receive money for videos. I took advantage of this opportunity, and I used the videos for instruction. I
prepared traditional lesson plans in language arts and reading. The lessons consisted of previewing questions, soliciting and reviewing vocabulary, grammar skills development, identification and discussion of characters, plot, possible and alternate endings. Vocabulary, story retelling, and summary charts were prepared with the students, and reviewed on the following day. I closely monitored the student's progress. Because the students had limited literacy ability at the time, I found that the visual images listening features of the videos, allowed the students to concentrate on the stories, without the anxiety caused by the inability to decode written material. They participated more in the language and grammar skills development part of the lesson because they were surer of the accuracy of their answers. It was exciting to teach with technology, because the students were involved learners. Then the administrator decided that the lessons were not instructional because I used videos for instruction instead of using printed material.

Cuban (2001), “...investigated teachers’ responses to the introduction of the technological innovations of film (1910s-1940s), radio (1920s-1940s), and instructional television (1950s-1980s).” (p137) Therefore, no one can claim that the use of technology was in any way innovative in 1988. Amazingly enough, the school at that time, had two computer classrooms, with 30 computers, and one teacher experienced in the use of computers. The technology was used to give students experience in the use of
computers and software and not to provide content area instruction or support related to classroom instruction.

As director of an Adult Basic Education program at a community college, I negotiated with the computer center administrator for the scheduling of the use of the center for my literacy adult students. These students were recently arrived immigrants from low socio-economic levels, who had no experience with computers. They were painfully aware of their existence and their inability to have access to them. The problem of obtaining materials was solved by vendors willing to give samples, and contributions made by personal friends who had already become computer literate in 1984. Although the materials was basic primary education material, the adult basic education students were thrilled to learn the basics. A work-study college-student aid taught them how to turn on the computer, and insert the disk. The students enjoyed the experience but due to the lack of software, the instructional use was limited. The use of the computers did provide a motivation for the students to come to literacy class after a hard day’s work.

Cuban (2001) says that technology in education is slowly absorbed, “...even “laggards” joined the majority of teachers in using films and television; but uses in classroom were infrequent, limited to maintaining customary practices; and
peripheral to the daily routines of teaching and learning (save for a tiny fraction of teachers.” (p140)

Instruction in all of the curriculum areas, can be enhanced by technology. In social studies and history the visual images can make vivid the reality of the event in the student's mind. The teacher can involve the students in many projects which have practical and current implications. Students can research written materials in libraries, government agencies, and private industry using technology, based upon their age, grade level, and skills.

In the area of science, the students can view procedures that many would never have the opportunity to experience. They can develop hypothesis relevant to actual scientific problems. They can try out their assumptions and get closer to the problem solving strategy, which can be used towards the solution of the problem depending on the level of sophistication of the software.

With virtual reality, students can even become involved in the material that they are
viewing. The arts become a first hand appreciation experience. They can create art with the tools available through the technology.

Visual representations can depict mathematic problems. Beginning math skills can be fun for students to work on with the use of technology. Grids, charts, money handling, and other problems can be worked on using a variety of software. Students can save their work and continue it at home, or the following class day. Students can make up their own problems, through work processing, and explain their solutions. They can create mathematics problems for each other.

Geological areas can be seen in three-dimensional ways. The effects of natural phenomenon on geographic areas can be visualized without actually being there.

Language and reading are integral to technology. Instructions for the use of technology are written, and therefore the students are challenged to respond to the written word. Visual images present great opportunities for creative writing and for the development of short films and documentaries. As aural/oral interactive software is developed, the opportunities for the use of technology and language teaching will be used to tap into prior knowledge as this information is used to develop new skills and creativity. Listening features allow a student to understand a story even if the student does
not yet have reading skills. For second language learners, diction, pronunciation; phonemic awareness, and grammar skills will all be augmented by the use of appropriate technology material. Literacy can be learned through the many activities which can be done through the use of technology. Through word processing students can create projects, stories, both in groups and as individuals.

The curriculum can more easily be integrated across the content areas. At the present time, the software is still limited in its compatibility with content area and language and reading curriculum and is not readily available.

The "organizational structures" must support the integration of technology across the curriculum for the purpose of instruction. As additional technological innovations are developed, educators will be able to continue to enhance the implementation of curriculum. At the present time, the preparation for the integration of technology across the curriculum is still too time consuming and frustrating for overloaded classroom teachers, and without adequate resources it can be limited.
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