

Valley Catholic School is a grade 7-12 private Catholic middle and high school of 500 students located in Beaverton, Oregon. The school promotes a college prep curriculum and most of the students are involved in the high acclaimed music and athletic programs. The school community draws students from families that work in the high tech industry in Oregon (Intel, Tektronics, and Nike) as well from the neighboring Catholic elementary schools. There are about 25 full time faculty members and 15 Administrative and support staff.

All students are required to complete one semester of computer applications (keyboarding, Word, Excel, and PowerPoint) as well as one other computer elective: Newspaper/Web Design, Graphic Design, Digital Video Production, and/or Yearbook

I am the Computer Department Chair and I teach almost all of the computer courses (except Yearbook). There are three full-time tech support personnel who maintain the network for the entire campus which consists of a convent, pre-school, grade school, middle/ high school, and nursing home.

The computer lab where I teach is brand new. There are 30 new Dell desktop computers, all with firewire, DVD-RW capabilities and hi speed Internet. There is a teaching station hooked up to an Infocus projector. In the lab, there is also a scanner, two digital cameras, five digital camcorders, and two printers. There is a second computer lab that teachers may use with their whole class and there are also 15 more computers in the school library.

Valley Catholic School is fairly traditional. Some teachers integrate technology into the curriculum but many of the courses use a traditional lecture format. Other departments expect that students already have the required technology skills for class even though the students can choose to take their technology credits at any time during their schooling.

The challenges in the Computer Applications course are to make the learning of the technology skills relevant to the student's experience but also authentic. There is a textbook available for use from DDC publishing but many of the skills are taught in isolation and are set in a business environment that doesn't directly correlate to a high school setting. Individual projects are incorporated into the instruction for genuine practice but still, the tasks seem phony and made up.

One of the reasons for this is that unlike a subject area course, the focus of the projects is on the technology skills, not on the subject content. It is challenging to create technology projects that have purpose and are authentic without relying on a specific subject matter. Another issue is presenting and creating authentic assignments that are motivating to a high school student and to not duplicate something they have already experienced in another class. Currently, students work on individual projects and there is little group work or discussion about the learning process. The computer curriculum is not set by a school district or board, so there is flexibility for content changes and curriculum.

The problem of “made-up” projects also plagues the Graphic Design class and the Digital Video course. Since both of these courses are considered electives, there is no set curriculum that must be covered. Both classes teach the necessary skills to master the software. Macromedia Freehand and Flash are used in the Graphic Design class and Adobe Premiere Elements is used in the Digital Video Production class. Once students have mastered the skills, they produce authentic looking projects for assignments, but these still lack the content of a subject matter class. The challenge is to keep the students serious about their projects and focused on the learning and thinking involved and away from silly or inappropriate subject matter. Assessment is another issue. Creating rubrics or authentic assessments that appropriately evaluate skills is difficult.

Some possible ideas to research will be to see how technology skills are used to create authentic learning experiences in a computer applications course. Another topic would be to research cooperative learning tasks that students could tackle together (such as a community project or a “moral” concept) that incorporate many technology skills. Researching “Authentic Learning” as an instructional strategy or several of the constructivist theorists (such as Piaget, Bruner or Vygotsky) can lead to a better understanding of how to develop this type of curriculum in these classes.

Last year we attempted to solve the “real world” problem of teaching web design without a purpose by merging the Journalism and Web Design course together. Students publish a monthly school newspaper and also created a school Intranet website for daily news and feature stories. This gave students an audience for their writing and also a real reason to learn web design. Not every student learned both the newspaper layout or web design skills but everyone wrote for both platforms and all were encouraged to assist in any area that needed help. This class has proved to be successful because of the real-world experience, but there are also a few issues. One of the problems is because all the students are working at different paces on different projects, there tends to be some dead time for students in between projects. Keeping the students actively engaged in further research, brainstorming, or peer editing is challenging.

This type of class also requires a lot of communication between class members. There are schedules, due dates, tasks to be done and information that needs to be taught. There are two teachers in the classroom. One is responsible for the journalism skills and one focuses on teaching the technology skills. Communications between these two teachers is vital to the progress and flow of the course.

Some possible ideas to research are communication tools that students and teachers can use in this course. Learning how teachers are using websites or course management systems to share information and maintain communication might offer solutions. Another idea is to research how “real” newspaper staff members communicate.

Condensed:

Valley Catholic School is a grade 7-12 college prep Catholic school of 500 students employing 25 full time faculty members and 15 administrative and support staff. While the current technology curriculum includes a wide variety of software applications, skills are often taught in isolation and students are not actively engaged in the assignments therefore, retention of learned concepts is diminished.

Participate
Get involved
Excited
Eager
Enthusiastic
Drawn in
Contribute
Be serious
Thought-provoking

While the current technology curriculum includes a wide variety of software applications, and the students fail to retain the information learned.