

CAPE BRETON UNIVERSITY

Education 541

EPSS Paper

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“You can’t teach today’s students with yesterday’s materials, and expect them to have success tomorrow”
(Griesbauer, 1999)

According to some sources, Apple's newest iPod Touch appears to have been a huge hit this past Christmas season. (Kim, 2008) Looking back over the past few years, we can see that this is not an isolated incident. The current net generation is now being dubbed as “digital natives” with PSPs, iPods, cellular phones and cameras. This presents an interesting challenge to teachers who often work with outdated and ancient technology in their students’ eyes. How can we accommodate students that are used to a world virtually at their fingertips unless the classroom evolves with them? How can teachers relate to a new generation of students that have grown up with computers, video games and Facebook when it is obvious that the students know more of this than the teachers? This paper will address in part some of these concerns with respect to teaching at Lunenburg Adult High School (LAHS) from an administrative and teaching perspective. By analyzing some of the current teaching and administrative tasks perhaps we can see into the future and make these tasks more efficient, ultimately producing a better learning environment.

Background

Day to day operations at LAHS are varied and are probably not the norm for a regular public school teacher. This is due in part to the small number of students compared to a regular school and partly due to the fact that it is an adult high school. Two teachers are at the school, one teaching English and Social Studies, the other teaching Math, Science and Technology. From an administrative perspective there are three main tasks that need to be done on a regular basis: attendance, grading and organization.

Attendance:

The mundane task of taking attendance is something that almost all teachers must go through. Larger schools have software systems in place that coordinate attendance school wide, but LAHS has relied on the easy-to-use teacher gradebook. Each day the teachers have physically placed a check next to students that were present. Past performance using this system hasn't been very good as attendance was done at the end of the day. Remembering whether a student was present for a particular class or not was difficult, especially if the student was present for one class and absent for another. This system has only recently been revised using an online program for tracking attendance. (<http://www.mrvchemistry.com>) This program requires the students to sign in themselves thereby making them responsible for their attendance. The program consists of a dropdown list of student names and a button that signs them in making the process fast and very easy to use. In addition, a second section allows the student to check their overall attendance or attendance for a particular day and compare it to the posted class calendar of what was taught that day. This has the ultimate goal in making the student responsible for their own learning and involvement much like the workplace.

Grading:

The process of grading is a second task that teachers are required to do as an administrative task. The process of grading involves actual marking of student work and then calculation of those marks for an overall grade. The effective use of grading software makes grading extremely easy and effective. Grading at LAHS is done in two

stages. Quizzes are currently designed using software called "ExamView" that has an option to publish the quiz to a local network or print a bubble sheet. Online quizzes are a popular and fun way for students to express what they have learned and has multiple advantages over paper quizzes. Media clips and colour graphics in addition to immediate feedback are three of these advantages. In addition, the marks are sent to the teacher electronically, essentially eliminating calculation or transcription errors. Other assessment methods, both formal and informal are also used, and everything is then compiled on a software program called "GradeKeeper". This software totals and computes grades according to predefined categories values which correlate to the course outline and curriculum. Reports can be printed off at any time in addition to being securely published on the Internet for access at home.

Course Organization

Due to the large number of courses taught at LAHS, a course organization system was clearly needed. Worksheets, notes, tests and lesson plans are now all being stored and created electronically in their respective course folder and sub-folders. This system is a constant work in progress. As worksheets or notes get updated, the updates must be reflected in the folder organization. Prior to the electronic storage system, binders full of worksheets arranged in chronological order were how things were organized. Looking for a particular lesson plan now involves a simple document search via keyword (metatag) or date rather than physically leafing through binders. This system of organization is a perfect example of information management.

Teaching tasks

Although administrative tasks are an important part of the requirement for employment as a teacher, most teachers would say that “learning how to learn is most important for students”. (Barnes, 2002) At LAHS three important teaching activities include lesson planning, research and collaboration.

Lesson Planning

The world wide web has brought with it a plethora of information. Some of this information is good and some is the contrary: all of it is information. Information without organization and integration is just data, but the effective use of that information helps students develop knowledge. On a personal level, www.mrvchemistry.com is a site that helps to organize and combine several aspects, both administrative and teaching. It is from here that students can access their attendance records and grades in addition to locating online resources that supplement activities and lessons completed in class. The site uses an open-source blog software called “Geeklog” to update the various subject categories with the relevant information that was either covered in class or used as starting point for student research. By aligning student interests with the course content and by providing an online medium with which students prefer to interact, it is hoped that further learning can occur.

Research

At LAHS, the use of the Internet has been used to our advantage. Six classroom workstations are shared on a regular basis to access sites such as www.Brainpop.com. This is a site that encourages critical thinking, educates and evaluates student learning through cartoon videos similar to the popular YouTube. This resource is good use of

information management in that it organizes units of study in small, easy to learn packages that use the thrill of technology to convey the course curriculum. Designed for elementary and Jr.High students, this site works well as a starting point for more advanced courses such as Biology 11 and 12. As part of a lesson plan, previewing the material at such sites is par for the course.

Collaboration

While computers and technology are valuable and important part of LAHS, the teachers within the school plays an important role as well. Collaboration between staff within our school and within our district may not necessarily involve technology, but it does involve the transferring of valuable resources that may ultimately aid in student learning. The close proximity to a number of regular public schools allows sharing of worksheets and lesson plans that have been found to be particularly effective.

Summary

Within a classroom context such as at LAHS, there are many things that affect how tasks are performed and many more things that affect how students learn. In the past, teachers were often thought of as the expert resources in the classroom and were the source of all knowledge. (Petruk, 1992) The advent of the Internet and technology has changed that and now most teachers are no longer regarded as knowledge demigods, but more as a local expert resource that can facilitate knowledge acquisition and use. Technologies such as the Internet and computers have provided us with vast amounts of information, but without an effective means to sift and sort through this information it remains irrelevant. It wasn't until software called Mosaic (predecessor of Netscape), did the average person have easy and intuitive access to the web, illustrating the

importance of EPSS. (Wikipedia) Since then search engines, online encyclopedias and other websites have effectively organized this information, but students must be able to use the information to learn. The concept of knowledge management is often misconstrued to mean the same as information management. The collection of data such as worksheets and notes or the creation of a website blog can be classified as information management. Essentially this is merely compiling information, relevant or not. Knowledge management involves the effective use and organization of this same information. As stated by Jones et al (1995), "Engaged learners derive excitement and pleasure from learning...learning is it's own motivator and results in a lifelong passion for solving problems, understanding, and taking the next step in their thinking and activities" (p.8). Teaching tasks that involve the use of software such as blogs and the review of sites further refine the process of engaging learners, as it allows the teacher to select topics that interest their students. Performance centred design is also used in this process as teachers want students to learn with a minimal amount of distraction such as learning how a software program works. From our readings PCD focuses on the performance of students or users rather than that of the technology, and "infuses tools with knowledge, structures tasks, and enables performers to achieve the required level of performance as quickly as possible ... with minimum support from other people" (Marion, 1997b).

Effective performance centred design may not always involve the use of more technology. This many seem contrary to popular belief, but PCD should also incorporate looking at the big picture and deciding how to implement the lesson being

taught and correlating this with students' needs and background. An example of this is with my last math class. Essentially there were students within the class that have never seen a computer, let alone use one. Effective performance centred design would keep computer usage to a minimum or perhaps eliminate it entirely depending on the nature of the class. In this case, technology would be a barrier to learning rather than a tool.

Within an administrative context, the ideas of performance support and performance centred design at LAHS can also be seen clearly. The online attendance system, and grade software makes a once tedious task more interesting and usable due to its universal and simple design. Students can check their marks and attendance at any time, giving them a sense of control over their own learning outcomes. In an adult environment, this was felt to be important with the added benefit of providing an environment that closely matches the working environment with time cards and pay sheets.

As Sherry so aptly put it "In times of rapid change, related fields have had an opportunity to learn from one another, borrowing useful elements and incorporating them into their own practices." (Sherry, 1996) The business world has initiated the concepts of information management, knowledge management and performance support with the end goal of company profit. By modifying a few of the parameters of the business model however, educators around the globe can use these same systems to more effectively teach their curriculum, engage students and ultimately produce life long learners.

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Software Links

Examview Grading software <http://www.fscreations.com/examview.php>

Gradekeeper Software <http://www.gradekeeper.com/>

Geeklog Blog Software <http://www.geeklog.net/>

Online Attendance System <http://www.mrvchemistry.com> (custom software)