CYBER-PROFS : A DIDACTIC TOOL FOR PRACTICING TEACHERS

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This unique and innovative project saw the development of a website containing videos and narratives of practicing teachers demonstrating very specific teaching strategies (which stemmed from a need analysis). This project stems from an online teacher education program started in 2004 at a relatively small Canadian university. Many of the teachers featured in the videos are our online students. This site is now available to the entire French-speaking teaching population as a pedagogical tool for in-service training. The major relevance of this project comes from the very large physical distances involved and the sparsity of the Francophone population.

Background

Technology is constantly pushing our world to change its way of looking at things, and teaching is not immune to this phenomenon. Teaching in the isolation of our classroom was the norm 20 years ago, but as great strides have been taken by the technology, the teacher has had to cope with a very changing landscape – be it the resources at his disposal or the technological savvy of the students. University teaching has been slower to move than the elementary or the secondary school system, but in the faculties and schools of education, this changing reality in the technological landscape has been more obvious than elsewhere on campus.

In the span of a few years, the Internet has become an essential tool. It is estimated that more than 1.1 of the planet's 6.5 billions inhabitants use the Internet, a 200% increase from 2000 (Internetworldstats.com, 2007). In Canada, we are looking at roughly a 70% penetration rate of the Internet in the homes. This prevalence of technology, combined with the quality and relative low cost of access make the use of the Internet an appealing proposition.

The Canadian school system is divided, as it is for many European countries (like Switzerland, for example), into provinces. Each Canadian province has an autonomous education system. Ontario is Canada's largest province, with a population of almost 8 million inhabitants. In Ontario, the public school system has two branches: the Anglophone system and the

Francophone system. The student population in the Francophone system represented, in 2006, 4.2% of the Ontario student population – clearly a minority setting (Ontario Ministry of Education, 2007). Furthermore, the Francophone population is spread over a very large area of the province's 1.1 million square kilometers, thus representing a very low density of population. The training of teachers in a minority French-language setting thus presents serious challenges.

In order to meet these challenges, l'École des sciences de l'éducation of Laurentian University has created a hybrid teacher-training program in 2004 whereby students were able to complete part of their course work online and come on campus for two intensive sessions during the summer in order to complete the remaining requirements. The Cyber-profs concept was developed in order to support our students working at a distance in order to add a visual component and real-life examples to their more theoretical experiences. The general idea was thus to go far beyond traditional distance education by adding rich, video-based, multimedia content to be used for teacher training.

Theoretical Foundations

The Cyber-profs website is based on a socioconstructivist model using observation as the main means of learning (Pintrich and Schunk, 1996). According to Bandura (1986), individuals have the capacity of observing others and distilling from those observations some concrete learning. On our website, the pre-service teacher will learn by either observing a peer, an experienced teacher or a colleague or by listening to experienced and novice teachers alike. There is a tremendous impact when the pre-service teacher observes a colleague in a situation not so different from the one he or she is presently living. The power of the message that is shown or said is increased in their eyes because of the affective bond that exists between the observer and the observed.

The website contains a mixture of interviews with experts and novice alike, as well as classroom observations. One of the goals of the site is also to create an opportunity for reflective practice – thinking critically of one's own actions. In a professional development context where future teachers need to learn through experiences with significant others, this website offers the opportunity to see how theory can be linked to practice. Pre-service teachers candidly offer their views on the challenges and successes with particular pedagogical approaches. This site promotes the development of professional competencies as well as an increase in the feeling of self-efficacy towards the teaching profession to anyone who uses it.

On of the tenants of Bandura's (1986) theory of self-efficacy lies on the observation of successes and failures of significant peers *«learning experiences*

occur by watching and absorbing the struggles and successes of others». Furthermore, when a person is unsure of their abilities, typically because of a lack of experience, the knowledge, views and experiences of significant peers have a greater impact : *«when people are uncertain about their own abilities or have limited prior experience, they become more sensitive to it »* (Pintrich and Schunk, 1996, p. 283).

The website

The website, www.cyber-profs.org, presents various sections. The section that will be discussed in this brief presentation is the Video Clips section.

The Video Clips section contains 50 clips varying in length from 2 to 15 minutes. One particular clip is a 75-minute observation that depicts the first day of class. Videos are organized by theme so as to facilitate navigation in the site. All of the videos found on the site were filmed in a minority linguistic setting in Ontario (Canada) so as to show in a concrete manner what can be expected of a teacher in the province under these conditions. Videos fall under two general categories: interviews with experts and observations in the classroom. Each category offers its strengths and weaknesses.

The 50 clips produced are the result of over 15 days of filming in 10 different cities throughout the province in an initiative funded by the Ontario Ministry of Education. The videos are placed in a QuickTime format to ensure compatibility over the two main operating system platforms, namely Windows and MacOS, as well as operating in a proven environment (Apple, 2007).

A Training Modules section for the website is still in development. This section will give the user a pedagogical overview of the thematic being exploited in the video. This gives an opportunity to maximize the impact of the videos by focusing the attention of the teacher on the key concepts contained in the video, thereby encouraging a reflective practice.

A typical Training Module initially presents the pedagogical intent, followed by the steps that will be followed in the video. An observation chart is proposed in order to enrich the activity and focus attention on particular aspects of the video. Theoretical information on the theme as well as opinions from experts in the field are presented. The Module concludes with a synopsis of the material presented in the video.

Themes explored on the website

In order for the site to have as wide an appeal as possible, the following 8

themes have been proposed: 1) Language arts, 2) Mathematics and science, 3) Arts, culture and social sciences, 4) General pedagogy, 5) Planning, measurement and evaluation, 6) Special education, 7) School law and 8) Physical education. Each section is subdivided and contains a subset of the videos

Next steps

Our site is very successful, considering the limited number of people for whom the content applies. Initially, the site was attracting upwards of 3000 hits per day, but has stabilized at roughly 500-600 per day. Given the success of this initiative, we are presently trying to grow the library of available videos and training modules. The same approach of having either experts or teacher candidates be the object of the videos will continue, but we will explore themes that have not yet been touched upon or that were highlighted to us as being important with a province-wide survey in order to identify themes that should be prioritized. We also plan to conduct a study on the efficacy of such a learning environment for teacher education in a minority context in Canada.

References

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