

Concurrent Distance Education Goes Wireless in Alberta

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As the bus pulled into the school parking lot, Johnny finished the last paragraph on his grade 12 English paper, emailed it to his teacher and proceeded into the building. While roaming the halls Johnny's laptop produced a printed copy for his portfolio, logged into the network and visited with Suzie, the distance education student who lives 600 km away. Mary's paper is not quite done, so Johnny points her in the right direction and streams yesterday's lesson to her in video format. The instructor welcomes the class to a new day and proceeds with news of a field trip to a Shakespeare Museum where the class finally gets to meet Suzie and study Shakespeare together. Today's activity takes the class for a virtual tour of the museum and captures the interest of the class. The class prepares for the field trip by developing their Shakespearean research on their laptop and planning an itinerary with the museum hosts via email. One student discovers the whereabouts of the only portrait of William Shakespeare, found in an Ontario attic, worth millions of dollars. "Perhaps our science teacher will let us travel to Ontario so we can collect a dating sample for our lab?" - Johnny asks Suzie.

Alberta Learning has sponsored The Alberta Conference three-year Education Hi-Tech initiative that will port several K-12 classrooms onto The Internet. The pilot program in Calgary has achieved some major milestones by providing teachers with computer training, laptop computers and networking tools necessary for delivering Concurrent Distance Education. What is Concurrent Distance Education? Traditional in-school students work on laptops networked wirelessly to The Internet while the teacher presents a technology-enhanced lesson. A distance-ed student views the lesson live over The Internet while interacting with the class via private chat rooms and email.



With the support of local school boards, churches, and the Conference this project will evolve into a province-wide distance education success. Students with remote addresses can now join our academies, virtually. The benefits also lie inside the traditional classroom where teachers are trained to integrate new technology and classes are exposed to The Internet in every lesson.

The technology required to network the traditional classroom with a virtual education student includes the following. The pilot project implemented a high speed internet network, broadcasted wirelessly using Apple technology. Teachers and students surf the web on iBook laptops as the lesson is projected onto the front of the room. Simultaneously, lessons are streamed live to the virtual student using Apple Quicktime Streaming Server technology. A replicated signal is available to accommodate up to 100 viewers, each receiving a maximum of 50kbps each, depending on the viewers bandwidth. Text communication occurs via email and private chat room meetings, as teachers work towards publishing lesson plan content online. The opportunities are endless as the program develops this year. Recruiting efforts are in place to register a few beta-test virtual students at the high school level. Superintendents can observe classrooms and work with teachers over this network. Parents will be able to view extra-curricular events while working late or download an archived copy to watch at a later date.

Today, the program is ready for a beta-test classroom, as teacher training continues with advanced workshops this fall. 2001 High school math and science demonstrations were archived, edited, and made available to students over The Internet. Lessons and activities in the same courses were published online at educ8r.net, a free education portal on the web. High school students that missed a day of school were able to get caught up easily using this technology. Various curriculum-specific software applications enhanced student learning and captured the interest of many classrooms as teachers integrated the iBooks into their lessons and activities.



Pasco digital interfaces enabled students to collect accurate data in the science lab and in the field, analyze the results and publish their findings on The Internet. Graduation ceremonies at Chinook Winds Adventist Academy in Calgary were broadcasted live to over 150 viewers last spring, some as far as Israel. What's next? Teacher training will continue in Alberta so all schools will have the same opportunities as CWAA this year. In the fall of 2003, The Education Superintendent, Education Technology Leader, and Alberta Learning will evaluate the program's success.

Future funding from Alberta Learning is dependent upon this evaluation. The pilot project received an excellent 1-year review from all participants, and continues to gain support from parents, students and teachers involved. Christian education has gone wireless as our teachers work together to integrate technology into their classrooms, and beyond.