Constructivist teacher education practices:  
Teaching teachers through TELE-Web

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Teacher educators are constantly striving for innovative and exciting ways to teach teachers about technology. Many current attempts stem from constructivist theories of pedagogy where the teacher guides a student through authentic projects, acting as the “guide on the side” rather than the proverbial “sage on the stage.” This presentation documents both the potential of an internet-based learning (the TELE-Web project) environment as well as one such attempt at involving teachers in the actual implementation of that technology project.

TELE-Web was designed to enhance the literacy learning opportunities of students with disabilities. Essentially, the creators capitalized on a successful literacy program (Early Literacy Program) to improve the authenticity of learning activities and to support the literacy development of young readers and writers. In the first year of implementation, there have been strong indications of its effectiveness, although further research needs to be conducted to determine its precise effects on reading and writing achievement.

TELE-Web consists of a set of server side software and client-side plug-ins that work with a Web server and database applications. The program offers a suite of multi-functional tools in an integrated fashion for teachers and students to use within a Web browser. It enables teachers to adopt, develop, manage and share multimedia literacy materials, as well as to initiate, conduct, and manage collaborative learning projects. In addition, teachers and researchers can archive students’ reading and writing responses in order to observe, monitor and report students’ literacy performance. Within this environment, learners are enabled and encouraged to explore, experiment, and experience independently and collaboratively with their peers from the same school or from a school afar. Tools are also provided to help students develop performative abilities in reading and writing, in addition to the meta-cognitive skills related to becoming goal-oriented, self-regulatory, independent learners.

There were four central environments that formed the core of TELE-Web: the Writing Room, Reading Room, Library, and Publishing Room. Each of these environments had a teacher and student interface which allowed teachers and students to create assignments; students to create, revise and complete assignments; teachers and students to add on or to comment on other students’ work; and the students to read other students’ stories. What was unique in these various environments, was the opportunity for students to receive cognitive and social support in each environment, insofar as the cognition and cultural capital and artifacts were distributed across the whole network in TELE-Web (Salomon, 1993).
The TELE-Web project was also unique in that it afforded teacher involvement during the implementation of the project rather than in the final instructional phase of use. Many technology implementations include teachers only in the training of the use of the product. This project attempted to initiate a dialogue between teachers and developers in its implementation. Bi-weekly meetings and other forms of electronic communication revolving around the development of the product replaced any formal training sessions. In turn, TELE-Web not only benefited from multiple voices, but it also presented a new model of instructing in-service teachers.

It is hoped that a round table at the SITE 99 conference would provide a forum for further discussion about new and exciting ways to involve current teachers in technology adoption and innovation implementation such as evidenced by the TELE-Web project. Further, it would provide an arena for the presentation of an internet-based learning environment—one that could be used in any educational environment (K-12 to College).