Building a technology-enhanced bridge over the content areas for English Language Learners

This presentation aims to share our experiences in creating technology-enhanced, content-based materials for English Language Learners. The presenters discuss what motivated us to integrate technology into our material development, how we incorporated technology into teaching content areas and language skills so that we could produce authentic materials that were culturally responsive, meaningful, and attentive to different learning styles. In addition, we share experiences in our professional development as material designer, and our beliefs that our precious experiences would have long-term repercussions by providing great materials to second language learners.

During the presentation, we introduce the two different material development projects that we have engaged in, the “WebQuest project on ESL through Art” and the Language of Math Curriculum project, and show some parts of our final products.

Part I: ESL through Art

The report on “Academic Atrophy: The Condition of Liberal Arts in America’s Public School” that Council of Basic Education published early this year (March, 2004) has sent a serious warning signal concerning dramatic curricular erosion. In the survey the council conducted, 36% of all principals participated reported decreases in instructional time for the arts and 42% of high-minority school principals anticipated future decreases in instructional time for the arts in order to increase in instructional time in reading and math.

Then, how could we cope with a crisis that liberal arts education has faced? How could we possibly help language minority students with access to the full liberal arts?

One small step the first presenter took was to develop an authentic WebQuest on ESL through art in the hope of creating new learning environments, promoting cooperative learning and individual responsibility, and responding to students’ diverse learning styles and cultures.

My WebQuest URL is: [http://www.glue.umd.edu/~seihwaj/WebQuest](http://www.glue.umd.edu/~seihwaj/WebQuest)

By visiting the art museums on-line and complete the task/roles assigned to them, the students should be able to appreciate art works and cultures from all over the world and promote their sense of community while developing their language skills in English. Also, it enables the students to develop high level thinking such as decision making, critical analysis and creative thinking.

Part II: Language of Math Curriculum Project

For the second part, the presenters talks about our experiences in creating the “Language of Math” curriculum for Prince George’s County Public Schools in Maryland.
As members of the design team which consists of graduate students in the TESOL/Second Language Education program at the University of Maryland, a professor who launched a material design and technology class for the first time, and a high school teacher teaching Language of Math classes, we created standards-based, technology-enriched lesson plans with assessments and teaching materials for ESOL students in Language of Math classes for more one and a half-year.

Our work intended to help English Language Learning in integrating their knowledge and skills in language into learning Math. Math is indeed a daunting task for both English Language Learners and teachers to cover a huge amount of typical language patterns and use especially in this era that everyone has to show a strong commitment to mathematics.

Keeping in mind that the most effective way of encouraging teachers to use technology for their class is to integrate the most commonly-used technology into teachers’ lesson plans, we developed materials using PowerPoint slides, Word, Internet Explorer and other popular software. The design is very user-friendly and handy, which neatly combines content, language and culture. A lot of visual aids and animations were used to help transfer math-specific concepts and ideas. In addition, we prepared a technology set for every lesson in the project. It certainly takes into consideration of both teachers who are well armed with technology knowledge and equipments and those who are not.