

Proposal to the TLT Collaborative Board for a Workshop on Visualization and Modeling

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Purpose: To develop and conduct a one-day workshop for the TLT Board and other faculty and staff at the universities on the role of visualization and modeling in teaching and learning.

Visualization gives insight and understanding to the meaning of data sets. Modeling reveals cause and effect relationships and communicates information that can lead to problem solution.

It is proposed that a one-day workshop be presented to the TLT Collaborative Board and other faculty and staff at the universities. The presenters in the workshop would demonstrate the role of visualization and modeling in teaching and learning. As an expected outcome of the workshop, a cooperative activity among the universities would be initiated to conduct a faculty development program in visualization and modeling, under the TLT Collaborative. It is expected that 20 faculty per semester would be participants in the training and would develop visualization modules for distance and classroom education.

The School of Education at North Carolina Central University has initiated such a program, under a federal grant from the Department of Education. Teams of faculty in the School of Education, School of Business, and the College of Arts and Sciences, and public school teachers are participating in a seminar series on visualization and modeling for constructivist learning environments. Each seminar session is 2 1/2 hours. Several topics are presented and discussed. Each session has several computer laboratory periods. During the summer, the faculty teams will participate in a two week workshop in which they will continue in the training and use the knowledge and skills gained from the seminar series to develop interactive, web-based visualization modules for classroom use.

This program is a model for the proposed faculty development program under the TLT Collaborative.

Representatives from 5 universities met at NCCU in November to discuss developing a multi-campus faculty training program and to create a virtual institute in scientific visualization and mathematical modeling. All the representatives from the universities concurred on the strategic need for this. Working under or with the TLT Collaborative would be a very good way to proceed, since visualization and modeling require powerful teaching and learning technology and since the initiative would enhance the skills and knowledge of faculty and students.

Requested Budget:

Consultant fees for organizing the workshop	\$4000
Equipment and software licenses	\$10,000*
Stipend/release time for Faculty Presenters	\$2000 (One person-week of preparation)
Total	\$16,000

* To be retained for the expected faculty development program afterwards