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INSTITUTION: Tennessee Tech University

TITLE: CAT National Dissemination: Assessment and Improvement of Learning

PROJECT#: 0717654

TYPE: Phase III-Comprehensive

TARGET DISCIPLINE: Interdisciplinary

FOCUS: Assessing Student Achievement

GOALS: The goal is to develop effective methods for training faculty to lead CAT (Critical thinking Assessment Test) scoring workshops on their own campuses and disseminate the CAT instrument. Faculty involvement in scoring student essay responses to the CAT together with discussion of best practices will help close the loop in assessment/improvement.

METHODS: The methods include conducting regional train-the-trainer workshops to prepare faculty at other institutions to implement CAT testing and conduct faculty scoring workshops at their home institutions. Various training and support materials are being developed to ensure the success of these training sessions and promote the use of best practices.

EVALUATION: Extensive work has been done to establish the face validity, criterion validity, and content validity of the CAT instrument and to establish the reliability of scoring in workshops led by the PIs. Evaluation is now focusing on the effectiveness of methods/materials for training others to lead scoring workshops on their own campuses. Evaluations include formative surveys of participants in the regional workshops, site visits during campus scoring sessions by external evaluators, and statistical analysis of scoring reliability. We are also conducting scoring accuracy checks by rescoring a subsample of each institution's tests on our own campus using experienced faculty graders.

DISSEMINATION: Two articles and six conference presentations have been completed. The website has over 4,500 hits from across the globe. Various brochures have been printed and distributed. A national dissemination conference was held in 2007. Future dissemination will include publications, brochures, CDs, conference presentations, and regional workshops.

IMPACT: The project has yielded a very effective interdisciplinary tool to assess students' critical thinking and real-world problem solving skills. This tool is useful for assessing both program improvement efforts and for evaluating sponsored research project outcomes related to critical thinking. By involving faculty in the scoring process, the CAT instrument increases awareness of student weaknesses in these important skill areas and helps motivate change. The discussion of best practices during the CAT scoring sessions provides further encouragement and understanding of how to improve student learning once weaknesses are identified and stimulates closing the loop in assessment/improvement.

CHALLENGES: Our biggest unexpected challenge has been accommodating widespread interest in using the instrument. To accommodate this interest, we have migrated from leading individual training/scoring workshops at other institutions ourselves to conducting train-the-trainer workshops where we prepare representatives from multiple institutions to lead CAT scoring workshops on their own campuses. This is requiring more careful attention to training support materials and procedures for the verification of scoring accuracy across institutions.