“Enhancing Student Learning
Through Innovative Teaching and Technology Strategies”
Supported by the Bush Foundation
December 2004 – December 2007

Call For Proposals – Classroom Research

BACKGROUND and INTRODUCTION
UM-Crookston: Promoting High Quality Collaborative Learning

The Student Learning Issue To Be Addressed
At the cornerstone of reflective practice and the scholarship of teaching is the idea that educators continually examine what they do and the contexts in which they do it. Boyer (1990) states, “As a scholarly enterprise, teaching begins with what the teacher knows” (p. 23). At the Crookston campus of the University of Minnesota, faculty members will examine how instructional technologies and innovative teaching strategies can encourage cooperation and collaboration among students.

National studies and reports support our selection of the student learning issue to be addressed in this grant project. Encouragement of cooperation and collaboration among students and the incorporation of active learning are both identified as significant attributes of quality undergraduate education (Chickering and Gamson 1987 and 1999; Ewell, P., and Jones, D., 1996; Chickering and Erhmann, 1996). Alexander Astin’s (1993) large-scale statistical studies across hundreds of colleges and thousands of students investigated 22 measures of student learning outcomes. Student-student interactions and student-faculty interactions were two outcomes that significantly affected academic achievement and student satisfaction. Using a very different approach, Richard Light (1992) studied one college, Harvard University, intensively. He and his colleagues interviewed 570 undergraduate students at Harvard to find out what learning experiences in college they valued most. He concluded: “All the specific findings point to and illustrate one main idea. It is that students who get the most out of college, who grow the most academically, and who are happiest, organize their time to include interpersonal activities with faculty members, or with fellow students built around substantive, academic work” (Light, p. 6).

Parker Palmer (1997) reminds us that faculty and students each bring themselves to the teaching process. Therefore, one of our challenges in teaching is that we must find a way to connect with our students and how they perceive and react to the teaching and learning environment. We are learning that the factors that influence students’ learning are as varied and interconnected as the ways in which students learn. Research studies (Terenzini, Springer, Pascarella & Nora, 1995) have shown that critical thinking skills are promoted by out-of-class experiences perhaps as much as students’ classroom experiences. Baxter, Terenzini, and Hutchings (2003) have argued that essential learning outcomes for college students include critical, reflective thinking skills, the ability to gather data and to analyze and evaluate evidence. A variety of classroom and out-of-classroom experiences in which students engage in peer learning will be promoted in our investigations.

The selection of this student learning issue is also based on the UMC “Core Components”. At UMC “Core Components” are defined as dominant themes, transferable skills and abilities essential to an individual’s success in any occupation or life setting. The selection of student-student collaboration as our student learning issue to investigate supports our campus focus on a student’s development of teamwork skills, a UMC “Core Component”. With our small campus size we have a minimal number of faculty members in one discipline, so we have limited our focus to one student learning issue that is applicable to faculty in all disciplines.
ELIGIBILITY for CLASSROOM RESEARCH PARTNERSHIP GRANTS

1. UMC Faculty members who meet the following criteria:
   ♦ Participation in Faculty Cohort Teams (2001-2004) with BUSH “Enhancing Student Learning Through Innovative Teaching and Technology Strategies” grant (OR new Tenure Track appointments Fall ’04, ’05, ’06) AND
   ♦ full-time faculty appointment with teaching responsibilities AND
   ♦ participation in BUSH Faculty Learning Communities with renewal grant, 2004 - 2007.

2. Applications must include two or more faculty to qualify for Classroom Research Partnership Grants. For example, professors in Biology, Early Childhood Education, Horticulture, and Marketing might investigate the same researchable question OR two (2) Animal Science Professors might want to study the same researchable question OR other partnership forms.

RESOURCE SUPPORT AVAILABLE

♦ Grant funds will predominately cover academic salaries to provide course release OR summer stipends to faculty members awarded the Classroom Research Partnership Grants.

♦ Stipends per grant project can range from $4,000 - $10,000. Excludes fringe benefits, which will be paid with grant funds, but not calculated in your project application budget proposal.

♦ Student employment opportunities exist with limited grant funding. Identify estimated need on application.

♦ Consultation with a national expert on Classroom Research will be routinely scheduled by the Campus Coordinator/PI for recipients of the Classroom Research Partnership Grants.

♦ Faculty members eligible for this grant have already received:
   o personal copies of Classroom Research: Implementing the Scholarship of Teaching by K. Patricia Cross and Mimi Harris Steadman; Classroom Assessment Techniques: A Handbook for College Teachers , 2nd edition, by Thomas A. Angelo and K. Patricia Cross; and
   o training with Karl Smith on “Designing, Implementing, and Assessing Student-Student Collaboration” on August 23 and 24, 2004; and

CLASSROOM RESEARCH: Scholarly Investigations to Improve Student Learning

K. Patricia Cross and Mimi Steadman (1996) have defined Classroom Research as the “ongoing and cumulative intellectual inquiry by classroom teachers into the nature of teaching and learning in their own classrooms. At its best, Classroom Research should benefit both teachers and students by actively engaging them in the collaborative study of learning as it takes place day by day in the particular context of their own classrooms. Teachers are learning how to become more effective teachers, and students are learning how to become more effective learners.” (p.2) Improving education through the systematic study of teaching and learning is the goal of Classroom Research. Classroom Research is learner-centered, collaborative, context-specific, scholarly, and relevant. (Angelo and Cross, 1993; Cross and Steadman, 1996) It is an applied form of inquiry. In this “action-oriented” approach the research-practice gap disappears as the teacher and researcher are the same person(s) (Angelo, 1991)

EXAMPLES OF “POTENTIAL” RESEARCHABLE QUESTIONS

Examples of two broader researchable questions we would target in at least two (2) research studies during the three (3) year grant period follow: 1) What kind of training and structure for peer learning groups results in higher quality of student products? and 2) What kind of training and structure for peer learning groups results in students’ perception of higher value? Classroom Research scholars would further define these broader researchable questions based on their area of interest. For example, one study could focus on whether coaching as a teaching strategy improves the quality of student work for the majority of students. Another study could focus on the specificity or clarity of written directions provided to all partnered students. An in-depth investigation of the effect on students developing a deeper level of understanding of a specific course concept with the use of collaborative learning could become a classroom research study. A study of the usefulness, impact, or value of varied Group-Work Evaluation forms used to collect feedback on students’ reactions to cooperative learning and/or study groups would be another feasible Classroom Research project.
EXPECTATIONS

1. **Attend Faculty Learning Community sessions** throughout the course of the Classroom Research Partnership Grant. *(Faculty Learning Communities will meet three times per semester beginning Spring 2006.)*

2. Conduct work with your Classroom Research Partners during a minimum of two of the following academic terms: Summer ‘05, Fall ’05, Spring ’06, Summer ’06, Fall ’06, Spring ’07, Summer ’07, and Fall ’07. Since the grant ends December 2007, any work conducted during Fall ’07 would need to be data analysis and/or publication work. **Partners must use common measures to conduct on-going assessment of student learning through classroom assessment techniques and to evaluate effectiveness of the teaching strategies used to enhance student learning.**

3. **Classroom Research Partners determine their research methodology and design.** Generally, steps include identifying the student learning area (student-student collaboration/collaborative learning), narrowing the focus within the learning issue to investigate further, review existing literature for research and theory related to the learning issue, generating a researchable question, determining data collection methods, analyzing data, transforming raw data into useful information for instructional decisions, and dissemination of their knowledge to their colleagues on campus, in the discipline, and/or in the field of higher education.

4. **Contribute to the data collection requested by the Campus Coordinator and the UM External Consultants (MGT).** Participation in the grant evaluation of the classroom research program will include at a minimum the following data collection methods:
   - Faculty reflection logs to measure accomplishments, challenges, lessons learned, and outcomes. *(5 questions to answer on secured website, monthly basis; copy of Faculty Reflection Log attached.)*
   - Annual faculty surveys;
   - Student surveys;
   - Student outcome/achievement data on projects in semesters prior to grant implementation and continued tracking through the end of the grant;

5. Faculty will **disseminate the results** of their project through campus seminars, and/or presentations at state, regional or national conferences, campus/institutional publications, and/or other professional publications.

APPLICATION GUIDELINES

1. Completion of **application form** (attached).
2. **Letter of support** from Department Head.
3. Effective Fall 2005, applications will be reviewed on an ongoing basis. Submit completed application form and letter of support to Marilyn Grave, Bush Grant Campus Coordinator/PI. The Bush Teaching and Learning Advisory Committee is committed to the review and evaluation of proposals within two weeks of submission. The Bush Grant Campus Coordinator/PI has also been requesting a blind review by an external consultant from MGT of America, Inc.

SELECTION CRITERIA

Faculty members interested in taking a scholarly and collaborative approach to improving student learning through innovative teaching and technology strategies are strongly encouraged to apply. The UMC Bush Teaching and Learning Advisory Committee and the Campus Coordinator encourage:
- Classroom Research Partnership Grants that are interdisciplinary in nature and benefit students cross-campus;
- grants in which faculty members who conduct the research with two courses *(e.g. Art 1152 F’05 and S’06)* OR conduct their work with one class each of two terms *(e.g. Agro 3130 F’06 and Agro 2840 S’07);*
- faculty members who demonstrate a commitment to integrate enhancing and assessing student learning into the campus mainstream;
- faculty members who will be motivated to disseminate the results of their work.