

## Active Learning Committee

Listed alphabetically, you will find below the description of the project each committee member is implementing in his/her respective course this semester (Spring 2004).

Kent Edmonds, School of Natural Sciences

*Course:* Basic Human Physiology (PHSL 215)

*Title:* Effects of the Knowledge of the Learning Cycle and Active Learning Exercises on Student Exam Performance

*Description:* Students will be divided into two groups. The control group will not be formally exposed to the learning cycle and active learning exercises during a defined time period. The experimental group will meet weekly at lunch (in between the lab and lecture portions of the course) and will be exposed to the learning cycle and various active learning exercises. Students will be allowed to self select the group in which they want to participate. Students that say either group will be acceptable or that miss the first day of class will be included in the control group. Students will be allowed to withdraw from the experimental group at any time. Activities that may be utilized as active learning exercises include: short quizzes for immediate feedback on students' comprehension of material, in class writing, self-assessment activities, case studies, small group interactions, daily journals, note comparison/sharing, evaluation of another student's work, students teaching other students, student work at the whiteboard, concept mapping, games, etc. The technique used will likely depend on the physiology material being examined at the time. Exams will be scored and compared every 3 weeks between the control and the experimental groups. The experimental group will be convened for the entire semester assuming most participants remain in the group.

Randy Hunt, School of Natural Sciences

*Course:* Introductory Biology (L 101)

*Title:* Concept Mapping as a Method to Improve Student Performance

*Description:* To determine whether concept mapping improves student test performance, half of the students enrolled in Introductory Biology (L101) will be randomly selected and required to construct a concept map that includes all material covered prior to the first examination. Maps will be graded and returned so that they can be used as a study aid. Students assigned to construct a map will be switched prior to the second examination. This procedure will allow me to directly compare scores of students who did or did not construct a map.

Larry Miles, School of Business

*Course:* E-Business (K 430)

*Description:* The active learning activities I'll be using in K430 - E-business include:

- Concept mapping exercises as well as presenting concept maps
- Team project writing a business plan for an e-commerce startup which will require them to use what they are learning
- Team project developing an Intranet site for their startup
- Infrastructure design exercise for their startup
- Other exercises (hopefully one active learning activity per class)

Jeanette Nunnelley, School of Education

*Course:* General Methods of Teaching in the Elementary Classroom (M301 and M310)

*Title:* Enhancing Students' Understanding and Use of Reflection as Part of the Learning Cycle

*Purpose:* To enhance students' understanding and use of reflection in their learning process and to ultimately affect their own teaching strategies. Method Students enrolled in General Methods of Teaching of Elementary Education will initially complete a brief survey about the concept of reflection and its impact on learning. During the semester students will read and receive information about reflection and participate in a variety of reflection strategies. These strategies will include: written reflections after all their lessons prepared and taught, written reflections on all assignments; one individualized technique of reflection twice in the semester about some major concept of the course. The latter may include, but be limited to, such strategies as writing songs and poetry, creating some graphic or artistic representation of the concept, etc. At the completion of the course, students will again be surveyed with to ascertain if their conceptualizations and utilizations of reflection in learning have changed. A rubric will be utilized to "score" their understanding and use of reflection for both the pre and post-survey instrument. The final scores of each scoring will be compared. Protection of Subjects/Students Students will be given an attachment to the syllabus which explains the project and methodology. Only volunteers from the class will participate and they may withdraw at any point from the project. Names will not be used on the survey and no grades will be associated with the project. Established grading procedures will be utilized for the written reflections after some of the assignments.

Zull, J. E. (2002). *The art of changing the brain*. Sterling, VA: Stylus.

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Curtis H. Peters, School of Arts and Letters

*Course:* Elementary logic (P150)

*Title:* Enhancing learning motivation

*Description:* During the first week of the course, half of the 30 students will each write an essay on how the improvement of abilities in logic will be beneficial for both their short-term and long-range life goals. Through the use both of an initial assessment of the logic abilities of each student in the class and also of the test result in the course, an effort will be made to determine whether there was any correlation between ability improvement and reflection on the relevance of logic for important personal goals.

Jim St. Clair, School of Social Sciences

*Course:* Reporting, Writing and Editing I (J200)

*Title:* Guided story construction

*Description:* This will be an exercise for use in the introductory journalistic writing course, J200 Reporting, Writing and Editing I. The goal is to help students develop a strong focus for a news story through the use of a photograph that shows actions or an event. Students will respond to such questions as: What people do they see in the photograph? What are they doing? Why are they engaged in that activity? When did the event take place? How did the event occur? The key words that result from this interaction will be written on the board. From this collection of words and phrases, students will begin writing the opening paragraph or paragraphs of a news story. The exercise is intended to help students first develop a focus and then construct a cohesive narrative.

Valerie B. Scott, School of Social Sciences

*Course:* Introductory Psychology (P101)

*Title:* Actively promoting learning

*Description:* In addition to the handful of group activities already in use in this Introductory course, I plan to raise students awareness of their individual learning styles (use of a questionnaire and written personal reflection on the results) and to incorporate the use of a concept map on one of the key topic ("difficult" chapter). Students knowledge of a set of key concepts will be assessed twice (beginning and end of the semester) by means of a brief survey (voluntary and anonymous participation). I'll also collect information on the perceived effectiveness of the various activities, including the short quizzes, used throughout the semester.

Michele Zimmerman, School of Natural Sciences

*Course:* A215-Basic Human Anatomy (Section J465)

*Description:* I will implement several active learning exercises during the nervous system segment of A215 with the goal of enhancing student retention and learning. The nervous system segment tends to be the most challenging for anatomy students. Exercises will include concept mapping exercises, and group work during laboratory sessions. Pre- and post-tests will be administered to assess the value of these exercises. In addition, I will compare this semester's nervous system test scores to previous semesters to measure the effectiveness of these techniques.