March 28, 1990

Dear Colleague:

Thank you for your interest in the conference on "Teaching Critical Thinking in the College Classroom." The conference will be held in Cartwright Center on Friday April 27. Enclosed is a program schedule and a set of pre-conference readings.

We expect that participants will come to the conference with differing ideas about what constitutes critical thinking and about how best to foster it in their own disciplines and classes. In order to provide some common background for the guest presentations we are asking that you complete a set of pre-conference readings.

Tori Haring-Smith's presentation will focus on collaborative learning and critical thinking. Please read the following articles in preparation for her presentation:

1. "How Students Learn" by Ellen Langer.
2. "Community, Conflict, and Ways of Knowing," by Parker Palmer.
3. "Teachers and Learning Groups: Dissolution of the Atlas Complex" by Donald Kinkel and G. Stephen Monk.

Robert Allen has worked extensively on developing techniques for improving critical thinking skills of students in college science courses. His presentation will focus on these procedures, and he will try to provide examples of how these techniques can be applied in other disciplines. Please read his two articles:

1. "Practice Exercises to Develop Critical Thinking Skills by Walter Stachiewicz and Robert Allen.
2. "Developing Critical Thinking Skills in Biology" by Michael Moll and Robert Allen.

We also ask that you read two additional articles, "'Critical Thinking' and the Baccalaureate Curriculum" and "Teaching Critical Thinking in the Arts and Humanities." These provide general background on the nature and teaching of critical thinking skills across the disciplines.

As you can see from the program schedule registration will be from 8:30- 9:00 a.m.. Coffee, tea and rolls will be available in Port O' Call Lounge. We will have a soup and sandwich buffet-style lunch from 11:30-1:00 p.m., and a social hour at the end of the conference.

Teaching Critical Thinking in the College Classroom Program Schedule
Held in Cartwright Center on the UW-La Crosse campus.

8:30-9:00 a.m.- Registration- Port O' Call Lounge

9:00-9:30 a.m.- Welcome and Opening Remarks- Port O' Call Lounge
Carl Wimberly, Vice Chancellor, UW-La Crosse
Sam Huffman, Interim Director, West Central Wisconsin Consortium
Bill Cerbin, Director, UW-La Crosse Center for Effective Teaching and Learning

9:30-11:30 a.m.- Guest Speakers Concurrent Session- select one
"Collaborative Learning and Critical Thinking"-Tori Haring-Smith, room 259
"Improving Critical Thinking Skills"- Robert D. Allen, room 326

11:30-1:00- Lunch- Whitney Center, Dining Room 4

1:00-2:15- Concurrent Session - select one
"A Model and Data Regarding Critical Thinking by Students in a General Education Course"- Blaine Peden and Allen Keniston, Psychology, UW-Eau Claire, room 326
"Groupthink: Playground Structures for Compelling Higher-Level Thinking in the College Classroom"- Tim Holleran, Education, UW-River Falls room 259
"Developing an 'X-Ray Vision' for Argument Structures: Recent Techniques in Argument Analysis"- David Peters, Philosophy, UW-River Falls room 263
"Teaching Critical Thinking for Adult Students"- Michael Lindsay, Education, UW-Eau Claire, room 328
"The Guided Design Thinking Program: An Evaluation"- Karen Kremer, Journalism, UW-Eau Claire, room 327
"Critical Teaching: Toward Teaching Critical Thinking in a Reconceptualized Classroom"- William Reynolds, Education, UW-Stout, room 330
"Using Structured Peer Reviews to Improve Students' Complex Thinking Skills"- Bill Cerbin, Psychology, UW-La Crosse, room 332

2:15-2:30- Break

2:30-4:30- Repeat Guest Speakers Concurrent Session- select one
"Collaborative Learning and Critical Thinking"-Tori Haring-Smith, room 259
"Improving Critical Thinking Skills"- Robert D. Allen, room 326

4:30-5:30- Reception and Social Hour- Port O' Call Lounge

PRESENTATION ABSTRACTS

Tori Haring-Smith and Robert Allen will repeat their presentations in the afternoon so that all conference participants can attend one session by each of them.

"Collaborative Learning and Critical Thinking"-Tori Haring-Smith, Brown University **room 259**

This workshop will introduce the theory and practice of collaborative learning, a technique widely used to teach critical thinking. After examining how traditional pedagogies can impede the teaching of critical thinking, we will explore the way in which collaborative learning alters the fundamental relationship between teachers and students in order to facilitate active learning.

To see how this theory works in practice, we will create and critique collaborative activities like group writing projects, peer review, in-class group exercises and interactive models for large classes. We will close with a discussion of how to overcome problems in implementing collaborative learning.

"Improving Critical Thinking Skills"- Robert D. Allen, Inver Hills College **room 326**

Students typically exhibit considerable difficulty in applying concepts, solving new problems and analyzing information for understanding. Indeed, teaching these and other critical thinking skills is a demanding task. However, recent research and instructional development have revealed promising techniques for improving critical thinking skills.

This workshop will examine typical student difficulties and misconceptions, as well as methods to overcome these difficulties. Emphasis will be given to developing and writing course material which can be used for lecture, discussion, laboratory activities, homework exercises and examination questions.

The focus of the workshop will be on <u>how</u> to teach and develop thinking skills using the demonstrated materials and techniques in practical classroom applications which integrate content knowledge and thinking skills instruction. Special attention is given to integrating student writing and small group work with critical thinking skill development.

There will be seven presentations by WCWC faculty in the afternoon concurrent session. Select one of these to attend.

"A Model and Data Regarding Critical Thinking by Students in a General Education Course"- Blaine Peden and Allen Keniston, Psychology, UW-Eau Claire **room 326**

We team-teach a General Psychology course that emphasizes critical thinking. We employ several different activities, each of which operationalizes the construct of critical thinking, provides practice for our students, and enables us to evaluate whether they become critical thinkers. Our model is sufficiently general and can be adapted in a variety of general education courses.

We plan to use a demonstration and discussion format. First, we will provide illustrative handouts, describe our model, outline each approach, present the data, and discuss ways to use this method in other general education courses. Second, we will open the floor for discussion and hands-on development.

"Groupthink: Playground Structures for Compelling Higher-Level Thinking in the College Classroom"- Tim Holleran, Education, UW-River Falls **room 259**

The presentation will focus on structures of cooperative group learning and their uses to simulate and stimulate the thought processes that are critical for an individual to understand and manipulate a given body of content.

After an introduction and demonstration of the principles involved, the participants will use a collaborative structure to explore how concept development, communication and problem-solving in small groups can be applied to their specific disciplines.

"Developing an 'X-Ray Vision' for Argument Structures: Recent Techniques in Argument Analysis"- David Peters, Philosophy, UW-River Falls. room 263

This presentation will provide a step-by-step demonstration of a general method for analyzing in diagram form the structure of arguments in ordinary English. The strategy is designed to facilitate distinguishing premises from conclusions, distinguishing between ultimate conclusions of an argument ("bottom-bottom" lines) and intermediary conclusions, making explicit tacit assumptions on which the argument may trade, discerning the particular type of "web of support" a given argument employs in attempting to justify its final conclusion(s), etc. High school students are capable of mastering this analytical method. An attempt will be made to apply the method to arguments of increasing complexity.

"Teaching Critical Thinking for Adult Students"- Michael Lindsay, Education, UW-Eau Claire room 328

Self-directed learning is commonly identified among the descriptors of adult education; however, many adult students are resistant to becoming self-directed learners. Critical thinking skills, as applied to both academic and daily life situations, foster the acquisition and continued development of self-directed learning. Thus, adult students--in graduate as well as undergraduate courses--need instruction and opportunity to reflect, question, challenge and criticize rather than just to accept, absorb, and ultimately repeat information merely by rote. This presentation will link principles of adult education with characteristics of adult thinking and instructional strategies for developing adults' critical thinking skills.

"The Guided Design Thinking Program: An Evaluation"-Karen Kremer, Journalism, UW-Eau Claire room 327

This presentation will involve an analysis and evaluation of "Guided Design," a decision making skills program developed by Charles Wales for use in college-level courses. It will focus on the goals, methods and materials that require students to solve open-ended problems. It will include discussion and evaluation of the advantages and disadvantages of integrating the program into content courses.

"Critical Teaching: Toward Teaching Critical Thinking in a Reconceptualized Classroom"- William Reynolds, Education, UW-Stout room 330

This presentation will focus on a discussion of the attempts to both model and teach the process of critical thinking in college classrooms specifically within the field of education. The presentation is divided into three major sections. The first deals with initial attempts at using critical teaching for critical thinking in classrooms. The second section deals with student reactions to this form of pedagogy. The final section deals with revised attempts at critical pedagogy. The presentation covers a period of development in classroom teaching lasting five years, and discusses both successes and failures within that period. The presentation attempts to give a realistic picture of the struggles and rewards of attempting to institute critical pedagogy within the college classroom.

"Using Structured Peer Reviews to Improve Students' Complex Thinking Skills"- Bill Corbin, Psychology, UW-La Crosse room 332

This presentation reviews strategies for incorporating peer review procedures in undergraduate courses. It includes a discussion of ways to help students learn to critically analyze and evaluate one anothers' written work, and ways of solving some of the problems commonly associated using peer review techniques.

These techniques have been used in several courses, and they have had a salutary effect on students' thinking skills in two ways. First, students have learned to be constructive critics of one anothers' work. They apply appropriate evaluative criteria and provide constructive comments to one another. Second, students write better papers. They use their peers' feedback to produce more coherent and carefully reasoned papers. In essence, during the semester students are able to learn and use a model of reasoning to guide their analysis and evaluation of their own and others' work.

We hope that the conference will provide a day of stimulating discussions on ways to improve the critical thinking skills of students in our classrooms.

If you have any questions please contact me.

Sincerely,

Bill Cerbin

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