



Engaging Students in Critical Thinking

An Online Graduate Course

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Course Description

This course is designed as a framework for engaging students in active, critical thinking through content area subjects within the regular classroom. As a global society, it is imperative that students learn to base their thinking on reasoned judgment and elements of critical thinking. Critical thinking for the purpose of this course will evolve around the following definitions: Ennis (1996) critical thinking means reasonable and reflective thinking focused on deciding what to believe or do. Paul (2000) critical thinking is that mode of thinking about any subject, content, or problem in which the thinker improves the quality of his/her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them. Some additional givens on critical thinking provide the base for instructional strategies (Norris, 2000): critical thinking is sensitive to context, critical thinking looks for reasoning behind conclusions, critical thinking is an educational ideal, and to think critically, one must have knowledge.

As Paul states (2005), developing critical thinkers is central to the mission of all educational institutions. The only capacity we can use to learn is human thinking. If we think well while learning, we learn well. If we think poorly while learning, we learn poorly. By ensuring that students learn to think critically and fair minded, we ensure that students not only master essential subject matter but also become effective citizens, capable of reasoning ethically and acting in the public good.

This course blends theory and practical application so teachers can ready their students for the lifelong journey of being critical thinkers. Engaging Students in Critical Thinking makes a positive difference in academic levels for students and is rich with material from experts in the field as baseline resources for curriculum strategies. Works from Lauren Resnick, Arthur Costa, Robert Ennis, Robert Marzano, Robert Swartz, Richard Paul, and Robert Sternberg are but a few of the resources discussed.

"The real voyage of discovery consists not in seeking new landscapes but in having new eyes" Marcel Proust

Objectives

- Examine the role of infusing critical thinking skills in today's standards driven curriculum.



- Discuss definitions of critical thinking.
- Study the correlation of infusing thinking skills into the curriculum and an increase in student achievement.
- Analyze characteristics of critical thinkers.

- Reflect on the logic of critical thinking.
- Analyze the role of critical thinking and education for life.
- Discuss the ethics of critical thinking.
- Develop instructional strategies for critical thinking.
- Compare and contrast thinking skills programs.
- Establish guidelines for teacher behaviors that promote an environment conducive to critical thinking skills.
- Analyze readings from experts in the field.
- Develop lessons to infuse critical thinking into existing content area.

Curriculum Design

Students will be involved in a variety of tasks for completion of course requirements: readings, report on readings, exams, journal and reflection entries, projects related to real world learning environments, and development of instructional strategies for specific content areas. This is an online sixty-hour, three credit graduate level course completed over a thirteen-week period.

Course Materials

The required textbook for this course is *Developing Minds: A Resource Book for Teaching Thinking, 3rd Edition*, edited by Arthur L. Costa. The textbook and course materials will be provided for all students. A variety of readings will be referenced throughout the course. Other supplemental readings will be provided.

Hardware & Computer Skills Requirements

Students may use either a Macintosh computer or a PC with Windows 95 or higher. Students should possess basic word processing skills and have Internet access with an active e-mail account. Students also are expected to have a basic knowledge of how to use a Web browser, such as Netscape Navigator, Microsoft Internet Explorer or America Online's (AOL) browser. To download a browser at no cost, visit one of the following Web sites – Netscape.com; Microsoft.com and AOL.com.

Module Outline

Module One: The Rationale for Teaching Thinking

- School Reform and the Need to Teach Thinking

- Defining Critical Thinking
- Reasoned Judgment and Critical Thinking
- Thinking Skills and Standards Based Assessment: What is the Fit?

Assignment: Compare the delivery of the content area that you instruct to the thinking and reasoning skills identified from the McREL research. Provide a written analysis of your findings.

Module Two: Characteristics of Critical Thinkers

- Intellectual Traits for Critical Thinking
- Universal and Global Standards for Thinking
- Elements of Critical Thinking

Assignment:

1. Reflect on Costa's Habits of Mind and Paul's Elements of Reasoning. Note similarities between the two as relevant to critical thinking characteristics and skills. State the similarities (chart form is okay) and discuss two elements that you believe relate to characteristics of critical thinkers.
2. Reflect on traits of critical thinking and post your reflection discussing a trait you believe to be a quality that might go unnoticed in a traditional lesson.

Module Three: Why Teach Critical Thinking

- Research Findings: Critical Thinking and Academic Achievement
- Why Critical Thinking Counts
- Why Critical Thinking is of Value
- The Role of Critical Thinking in Education for Life

Assignment: You have been asked to design standards for your content area. Develop three standards related to critical thinking which need to be part of your content area. In addition to e-mailing this assignment to your instructor, post the three standards to the forum. React to standards developed by one classmate.

Module Four: Instructional Strategies for Critical Thinking

- Redirection/Probing/Reinforcement
- Questions/Higher Order/Socratic
- Wait Time and Research Findings
- Instructional Practice

Assignments:

1. Conduct a lesson in your educational setting in which you use "wait time" for questions. Record the students' comments about the "wait time." Use probing questions to solicit the students' ideas and comments about how the "wait time" affected the

instruction. Outline the findings making sure to include the probing questions.

2. Engage students in an assignment/lesson in which they will participate in a higher order activity. Describe the activity and the results experienced by the students. Give specific examples.

Module Five: Instructional Model for Critical Thinking

- The work of Richard Paul: Thinking About Thinking
- Dialogical and Dialectical Thinking
- Socratic Questioning

Assignment: Target five Socratic Questions to incorporate into a lesson you will use with your students. Present the framework for the lesson with the questions. Suggest an anticipated response to each question.

Forum Posting: Post your questions in the Module 5 forum.

Module Six: Instructional Strategies for Transfer of Thinking Skills

- Cueing Thinking in the Classrooms
- Teaching the Language of Thinking: Terminology, Questions for Thinking Behavior, Decision Making, and Metacognition
- Technology and Thinking

Assignment: Complete the activity in the “must see” links regarding cognitive mapping and problem solving.

Module Seven: Research and the Use of Specific Critical Thinking Programs

- Comprehensive School Mathematics Program (CSMP)
- Building Thinking Skills
- Problem Solving and Comprehension
- Higher Order Thinking (HOTS)

Assignment: Select a critical thinking skills program and discuss how you will use it in your instruction. Target end goals for the students and provide an example of the use of the program.

Module Eight: Creating the Environment Conducive to Critical Thinking

- Teacher Behaviors Which Promote Critical Thinking
- Teaching the Language of Thinking in the Classroom
- Teaching for Transfer
- Frames for Teaching Critical Thinking

Assignment: Design a presentation for a group of teachers in which you target crucial points for sharing from this module. Outline your presentation.

Module Nine: Addressing Critical Thinking through Various Learning Styles

- Organizing Thinking Thru Visual Diagrams
- The Visual Spatial Learner
- Graphic Organizers
- Critical Thinking for the Right and Left Brain Learner

Assignments:

1. Compare the instructional strategies which you are currently using with best practices for the visual spatial learner and/or the right brained learner. Discuss how your instruction will change based on what you have learned in this module. Provide specific examples.
2. From one of the must see links complete the visual spatial activity.

Module Ten: Assessing Critical Thinking

- Thinking and State and National Assessments
- Resources for Teaching Critical Thinking
- Self-Reflection and Classroom Instruction
- Checklist for Critical Thinking Programs

Assignment: Develop a plan to implement the critical thinking skill strategies which you have learned through this course. Include reflections on the checklist for critical thinking programs. In your plan describe areas you will target for one year. Also reflect on resources that you will need to implement this plan.

Course Requirements

Students are expected to complete all assignment and forum postings. This course requires rigor and concentration on the part of the student to complete the tasks at hand.

Grading Criteria:

A = 93-100

B = 85-92

C = 77-84

Points:

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| Forum Postings: | 35 |
| Mid-term: | 20 |
| Projects: | 30 |
| Written Assignments: | <u>75</u> |
| Total points: | 160 |



Student Academic Integrity

Participants guarantee that all academic class work is original. Any academic dishonesty or plagiarism (to take ideas, writings, etc. from another and offer them as one's own) is a violation of student academic behavior standards as outlined by our partnering colleges and universities and are subject to disciplinary action.