INFUSING CRITICAL THINKING AND DIVERSITY: EASY OR HARD?

Marcia A. Gellin, Ed.D., R.N. and Mary Beard, MS.Ed.
Asst. Academic Deans for Liberal Arts
Erie Community College
Buffalo, NY

Introduction/Background

Critical Thinking

Critical Thinking has become one of the benchmarks which is used to measure successful learning outcomes of college students today. Community colleges’ main mission is to prepare students to become productive members of society, and enter the Work Force prepared to begin at least an entry-level position. Employers are indicating the kinds of skills they are expecting new employees to bring to their jobs. Moving to the top of the list of necessary incoming skills is Critical Thinking.

In 1998, The State University of New York (SUNY) Board of Trustees identified the mandatory General Education knowledge and skill areas for all sixty-four (64) SUNY Institutions. Beginning with students admitted in Fall 2002, all graduates of SUNY Colleges and Universities are now required to have satisfied the course requirements for competency in each of the knowledge areas. Erie Community College is committed to ensuring that its graduates, with Associate in Arts and Associate in Sciences Degrees, have met the requirements of 7 of these 10 knowledge areas. Every effort is being made to guarantee that ECC graduates will be granted Junior Status at all SUNY Institutions. The two competency areas which need to be infused throughout the General Education Program include Critical Thinking (Reasoning) and Information Management (Erie Community College, 2003, p. 47).

Diversity

The concept of diversity has been recognized by both faculty and administrators as being the key to recruiting and retaining new students. Diversity impacts curriculum change, student organizations and activities, as well as orientation programs, and the campus environment itself.

Erie Community College is committed to the endeavor that diversity reaches the core of our educational mission and is best served by a diverse faculty, staff, and student body. The goal of ECC is to foster an environment that attracts and retains faculty, staff, and students who value diversity. Every aspect of the college, including student life, teaching, training, hiring, and community involvement, must encompass diversity. The commitment to diversity is addressed regularly by the President’s Blue Ribbon Diversity Committee which was established in March 2004 (Erie Community College, 2004, para 1 & 3).
Statement of Purpose

The purpose of this pilot project is to provide faculty with an opportunity to infuse both Critical Thinking and Diversity into their existing or new courses. During the 2004-05 academic year, the Critical Thinking competency needs to be infused throughout the General Education program at the college. In order to provide an environment in which students are encouraged to think at the highest level of quality, as well as to increase their multicultural awareness and understanding, the project directors developed a proposal based upon not only the mission of the college, the SUNY mandate for General Education, but also the President’s Blue Ribbon Committee on Diversity.

Literature Review

Critical Thinking

Critical Thinking is important for education because critical thinking is an essential factor in making intellectually sound judgments. Critical Thinking can be defined as: the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action (Scriven & Paul, 2004, p.1). Some scholars believe that critical thinking skills are the foundation of a democratic society (Brookfield, 1987; Dewey, 1933; Facione et.al. 1996).

In the late 1980’s, the building momentum to list Critical Thinking as a core educational outcome provoked the National Governor’s Association, then headed by Governor Bill Clinton of Arkansas, to incorporate Critical Thinking among their recommendations for National educational goals. In light of the governor’s report, and aware of the growing national enthusiasm for educational reform, the federal government under the Bush administration adopted National Goals 2000 in 1990 (Bush, 1990). In this goal statement, the United States Department of Education mandated the demonstration of a significant improvement of Critical Thinking in all our Nation’s college graduates by the year 2000. No specific guidelines for what level of student was to be considered a “college graduate,” what constituted “significant improvement,” or how that improvement might be demonstrated were given. With the Clinton administration, plans for a possible national proficiency examination shifted to an individual focus, where State Legislatures were charged with determining how their individual State would respond to this mandate. The emphasis has now shifted to two specific foci: “How can Critical Thinking best be taught in our classrooms/clinical settings/field settings?” and “How can we best demonstrate students Critical Thinking in a student assessment project for the purposes of curriculum or program evaluation?”(Facione, 1995).

A growing trend has been noticed among colleges in the United States and Canada to require all students to fulfill a requirement in “critical thinking” as part of their general education program (Halpern, 2001). The ability to think critically is almost always listed as one of the desirable outcomes of undergraduate education (Halpern, 1988). As a result, there is a growing need to help students develop and/or improve their critical thinking skills. The underlying rationale for the infusion of critical thinking into college-level courses is the belief that students...
will become better thinkers if they acquire and use thinking skills such as the ability to analyze and synthesize information, identify main ideas, cite evidence in support of a conclusion, and use probabilities (Halpern, 2001).

In August 1993, the General Education Task Force (GETF) at a small public community college determined that critical thinking skills should be taught across the college curriculum. The intrinsic belief of the faculty was that by helping students develop and strengthen their cognitive processes such as analyzing, evaluating, questioning, synthesizing, and deductive reasoning, the faculty would enable students to become self-reliant learners and independent thinkers (Adkins, 1994, p. 3). An ongoing staff development/training program was designed to improve critical thinking skills across the curriculum. In addition to workshops which offered specific, direct strategies designed to help English professors at the site school infuse Critical Thinking skills into their English curriculum, a corresponding teacher handbook contained conveniently organized key points and ideas, copies of helpful articles on critical thinking, and a list of excellent, current resources made available at the site school, including books, articles, videos, and workshops (Adkins, 1994, p. 5).

Before beginning to infuse critical thinking, a survey should be distributed to faculty to determine their perceptions re: Critical Thinking and to begin to address the many questions which exist about Critical Thinking instruction, and the type of skills that are needed in the Work Force today. An example of thinking skills which may be desired by employers includes: using the problem-solving process, generating hypotheses, reading and comprehension, developing an action plan, understanding spatial orientation to problems, and writing clearly, precisely, and accurately.

Professional faculty development teams are needed to: a. Create interdisciplinary industry-modeled faculty teams; b. Provide continuing education in key concepts and learning theory; c. Create classroom environments that model the workplace; d. Sponsor workplace research, and e. Provide access to technology and related training for faculty and students (Craft & Mack, 2001).

Administrators and faculty need to work together to effect change. Faculty members need autonomy to experiment with new approaches. Administrators need to offer support rather than directly supervise or mandate specific types of change.

**Diversity**

An increasing number of colleges around the country are infusing the value of cultural diversity throughout the college community and rethinking the curriculum (Chang, 2002; Mellow, 2003). Faculty members are developing a wide range of strategies and innovative practices within their curricula to include diverse content and perspectives in higher education. The requirements that address diversity in American society aim to develop students’ critical thinking by challenging them to think more deeply about their assumptions concerning race, ethnicity, gender, class, sexual orientation, or physical disabilities (Lawson et. al., 1998; Sleeter & Grant, 1994). The curriculum strategy of not focusing explicitly on race or ethnicity, but addressing other group differences, assumes that by developing students’ ability to think more
critically about one significant difference in U.S. society, it will transfer well to thinking about other differences. In other words, enhancing students’ ability to think critically about class differences, for example, will also improve one’s ability to appreciate cultural pluralism and to analyze inequality that is manifested through racial, gender, or sexual orientation differences (Chang, 2002). Research studies that are not limited to teacher education programs, but examine curricular diversity initiatives broadly in undergraduate education have consistently found that this initiative has positive effects on students’ openness to cultural awareness, interest in racial understanding, and greater appreciation of multiple cultures (Hurtado, 1996; Villalpando, 1994).

By surveying ninety-two (92) institutions about their diversity-related curriculum, the Association of American Colleges and Universities (AAC&U) identified several popular curricular approaches for examining stereotypes, belief systems, the nature of prejudice, and the advantages and challenges of a multicultural society (Humphreys, 1997). More than half the institutions surveyed had implemented a diversity requirement. Only a small percentage of institutions required all students to take the same course, and most allowed students to choose from many different courses from different departments to fulfill the requirement. Another popular approach identified by the report was to infuse diversity-related scholarship and discussion into existing curricula rather than creating a separate requirement. While this approach might ideally allow students to systematically analyze injustice, intolerance, inequality, and discrimination in nearly every course, it requires a significant investment in faculty development (Chang, 2002).

At LaGuardia Community College, faculty and administrators work together to create professional development programs for faculty on a host of topics, operating within and across departments. The LaGuardia Center for Teaching and Learning offers faculty-development days, seminars, and brown-bag lunches where faculty members focus on issues of teaching and diversity (Mellow, 2003, p. 16).

It is important to remember that any major effort to change attitudes of individual faculty and staff members, and create a new campus awareness of diversity, involves the entire college community. Everyone’s contributions to diversity practice, whether it be in the development of curriculum, activities or events, should be recognized and appreciated, individually and collectively, both inside and outside the classroom, laboratory, clinical setting or field experience.

Methodology

Participants

Erie Community College is a tri-campus institution with a city campus and two suburban campuses. It is New York State’s first multi-campus public community college outside of New York City, and provides affordable educational opportunities for the residents of Erie County, New York, and the surrounding counties and states, as well as foreign countries (Erie Community College, 2003, p. 5).
The primary goal of this pilot project is to provide six (6) faculty members with an opportunity to infuse both Critical Thinking, as well as Diversity into their existing or new courses. Each faculty member will be paid a $100 stipend upon completion of this project. There are two Assistant Academic Deans who are the project directors for this initiative.

The role of the Project Directors is to:
1. Develop a budget which includes: a) Project Directors administrative/clerical costs; b) one (1) faculty committee member; c) the six (6) faculty participants; d) Professional Development (conference attendance) for the Project Directors and faculty member on the committee; and e) miscellaneous expenses.
2. Develop a one-page Course Proposal Submission Form to be used by faculty interested in participating in this initiative.
3. Develop a Teacher Handbook for the faculty which includes: (a) guidelines and criteria for infusion of the two concepts; (b) a substantial bibliography and list of resources; (c) a list of local, regional and national experts in the field of Critical Thinking and Diversity.
4. Forward the completed Course Proposal Forms to both of the Associate Vice Presidents (AVPs). These forms will be reviewed by the AVPs, in collaboration with their Assistant Academic Deans, to name six (6) faculty members college-wide who will be awarded $100 stipends to proceed with the pilot project.
5. Develop an ongoing faculty/administrative committee of consisting of two (2) administrators and one (1) faculty member who will be responsible for: (a.) reviewing the course proposals; (b) making written recommendations to the faculty to prepare the courses for submission to the College Wide Curriculum Committee; and (c) compiling a list of courses that will be submitted to the College Wide Curriculum Committee by individual faculty.
6. Develop a comprehensive report of the pilot project, and submit this report to upper administration, in a timely manner.
7. Act as ongoing consultants for this initiative.

The objectives of this project include the following:
1. Infuse the concept of Critical Thinking into an existing or new course.
2. Develop the students’ ability to think and reason.
3. Incorporate the concept of Diversity into an existing or new course.
4. Increase multicultural awareness and understanding
5. Analyze the concepts and apply them to real life situations.
6. Synthesize the steps of the Critical Thinking process to encourage students to think at the highest level of quality in all of their courses.

**Procedures**

Faculty members from across all three campuses were invited via the college web page to provide Course Proposal Submission Forms for infusing Critical Thinking and Diversity into the curriculum. There were eight (8) proposals submitted to the committee representing the following departments: Biology, Engineering Science, English, Math, Medical Laboratory Technician, Nursing, Radiation Therapy and Social Science.
Course Proposal Forms were reviewed by the academic Associate Vice Presidents, in collaboration with their Assistant Academic Deans, to name six (6) faculty members who will be awarded the $100 stipend to complete this project. A comprehensive report will be submitted by the Project Directors in May 2005.

A combined three (3) member faculty/administrative committee was also developed to review course proposals, make written recommendations to faculty, and compile a list of courses that will be submitted to the College wide Curriculum Committee for review.

Resource Materials

A “Teacher Handbook” was developed by the Project Directors and includes examples of the “Eight Elements of Thought” present in all thinking: Purpose, Question, Information, Interpretation and Inference, Concepts, Assumptions, Implications and Consequences, and Point of View. These eight elements should be included in each course proposal.

An extensive list of books were recommended for faculty perusal along with various videos on Critical Thinking and Diversity, and a copy of Bloom’s Taxonomy and Critical Thinking completed by Longview Community College.

The following format was recommended to be used by faculty for courses submitted to the committee: course description, course outline, course syllabus, description of the specific orientation to the course, description of how your students will think of your course content (i.e. Biology) as a “form of thinking” (i.e. biological thinking), describe how you will use engaged lecture, explain how you will act as a coach, rather than a dispenser of knowledge, and provide specific assignments, sample tests/quizzes, and activities that incorporate critical thinking and diversity.

Survey

A 25-item survey based on a 5-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree” was administered to the college faculty on all three campuses. The purpose of the survey was to determine the perceptions of faculty in regard to both Critical Thinking and Diversity. Prior to administration of the survey, the instrument was Beta-tested randomly. Face validity was also verified. Data collection is currently taking place, and will be completed during Spring 2005.

Participating faculty are currently in the process of infusing Critical Thinking and Diversity into their course outlines and syllabi. These courses are due to be submitted to the committee during February 2005. The project directors are developing an expanded grant initiative to provide fifteen (15) faculty members with a similar opportunity during the 2005-06 academic year. Next year’s faculty members will be working with not only the Project Directors, but also the current faculty members, who will act as mentors for this upcoming initiative.
References


