ED 428 410   CS 510 028

AUTHOR   Pawlowski, Donna R.; Danielson, Mary Ann
TITLE   Critical Thinking in the Basic Course: Are We Meeting the
                Needs of the Core, the Mission, and the Students?
PUB DATE   1998-11-00
NOTE   20p.; Paper presented at the Annual Meeting of the National
                Communication Association (84th, New York, NY, November
                21-24, 1998).
PUB TYPE   Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   *Critical Thinking; Foreign Students; Higher Education;
                *Introductory Courses; Sex Differences; *Speech
                Communication; *Student Attitudes; Thinking Skills;
                Undergraduate Students

ABSTRACT
        This paper addresses issues of implementing critical
thinking in the basic communication course. A new paradigm of critical
thinking, which includes a dualistic approach of teaching both the logical
and creative skills, must be considered in communication classes in order to
meet the needs of the core communication curriculum and mission. As a
starting point to assessing both of these skills, a pretest of the logical
side of critical thinking was conducted with 222 Creighton University
undergraduate students who completed the Watson-Glaser Critical Thinking
Assessment Test. One-way analyses of variance found only statistical
significance between United States (domestic) and international students such
that international students scored lower than the domestic students.
Descriptive differences among sex and class standing are also discussed.
Overall, it is argued that communication instructors need to take more of a
dualistic approach in facilitating logical and creative thinking skills to
meet the needs of all students. Contains 30 references and a table of data.
(Author/RS)

Critical Thinking in the Basic Course:
Are We Meeting the Needs of the Core, the Mission, and the Students?

Donna R. Pawlowski, Ph.D.
Assistant Professor
Department of Communication Studies
Creighton University
2500 California Plaza
Omaha, NE 68178
(402) 280-2531

Mary Ann Danielson, Ph.D.
Associate Professor and Chair
Department of Communication Studies
Creighton University
2500 California Plaza
Omaha, NE 68178
(402) 280-2631

Running head: Dualistic Critical Thinking in the Basic Course

Critical Thinking in the Basic Course:
Are We Meeting the Needs of the Core, the Mission, and the Students?

Abstract

This paper addresses issues of implementing critical thinking in the basic communication course. A new paradigm of critical thinking, which includes a dualistic approach of teaching both the logical and creative skills must be considered in our classes in order to meet the needs of our core curriculum and our mission. As a starting point to assessing both of these skills, a pretest of the logical side of critical thinking was conducted with 222 Creighton University undergraduate students who completed the Watson-Glaser Critical Thinking Assessment Test. One-way analyses of variance found only statistical significance between United States (domestic) and international students such that international students scored lower than the domestic students. Descriptive differences among sex, and class standing are also discussed. Overall, it is argued that we need to take more of dualistic approach in facilitating logical and creative thinking skills in order to meet the needs of all students.

"To succeed in college, undergraduates should be able to write and speak with clarity, and to read and listen with comprehension" (Boyer, 1989, p. 73). Although many assumed that all students were learning basic literacy and communication skills, educational assessment proved otherwise. Following the national report that attempted to explain "Why Johnny can't read," educational leaders devoted resources to further assessment and curriculum revision efforts. Assessment efforts concluded that, among other things, students lacked basic critical thinking skills (Paul, 1995). Educational administrators responded by demanding that critical thinking skills be added as a necessary educational component.

As critical thinking is a natural component of the communication process and often taught as a component of the communication curriculum, communication scholars need to address the extent and form of critical thinking instruction and learning. While critical thinking skills may be taught in a variety of communication (and philosophy and English and business) courses, the focus of this paper is on incorporating critical thinking into the basic speech course, as this is where the majority of students will initially encounter critical thinking within the communication curriculum.

With the range of available teaching methodologies and technological advances, the form and function of the basic communication course may differ greatly. More importantly, it is sometimes difficult to assess whether the utilized methods and tools are still promoting critical thinking within the students. In this paper, we examine and assess how teaching critical thinking compliments Creighton University's Core Curriculum (CC) and institutional mission statement while meeting the learning needs of the students. Our examination will first address the necessity of critical thinking; progress to the role of critical thinking within the basic communication course, especially as it relates to the Core Curriculum (CC) and institutional mission; and conclude with a preliminary assessment of student learning and whether our approach to the basic course does, in fact, enhance critical thinking within the students.

Necessity of Critical Thinking

The shift in educational paradigms mandates the necessity of critical thinking, as the educational patterns and techniques of the past are no longer effective with today's youth. The move toward assessing our educational efforts and modifying curriculum and teaching styles in the 1980s and 1990s reflect a growing dissatisfaction with the current system and a growing shift from the instructional to the learning paradigm. The paradigm shift reflects a decreasing emphasis on instruction or teaching and an increased emphasis on learning. It is a shifting of focus that separates the means from the ends, the instruction from the learning, with the emphasis on the ends (i.e., student learning).

The new learning paradigm differs in mission and purpose from the more traditional instructional paradigm. According to Barr and Tagg (1995), "We now see that our mission is not instruction but rather that of producing *learning* with every student by *whatever* means work best" (p. 13). . . . In the learning paradigm, "a college's purpose is not to transfer knowledge but to create environments and experiences that bring students to discover and construct knowledge for themselves, to make students members of communities of learners that make discoveries and solve problems" (p. 15).

The shift from the instructional to the learning paradigm is going to require an environment where students are empowered to learn to think for themselves. That is, the "learner must *construct* [italics added] learning and meaning, not be the recipient of learning" (French & Rhoder, 1992, p. 60). Educators within a learning paradigm would necessarily have to focus on critical thinking and fostering students' efforts to learn HOW to think and not what to think.

This shift in focus is especially important in today's information age where students are bombarded with thousands of pieces of information daily. According to Greg and Renz (1993), "changes in society will so dramatically alter the lives of college students as to make irrelevant much of what they have learned today. The understandings and skills retaining relevance are those which will enable individuals to sort through the plethora of information and ideas which

confront them" (p. 9). Students must learn how to selectively access and process that information; students must learn how to think critically.

Given the importance of critical thinking skills, it is equally important that we understand what constitutes critical thinking. Words such as "higher cognitive skills," "metacognition," "creative thinking," "reasoning," and "problem solving" are all associated with critical thinking and used (sometimes synonymously) to describe critical thinking. Unfortunately, there is no simple definition of critical thinking; multiple definitions and perspectives abound. Definitions include the following (not a complete list of definitions):

--an investigation whose purpose is to explore a situation, phenomenon, question, or problem to arrive at a hypothesis or conclusion about it that integrates all available information and that can therefore be convincingly justified.
(ASHE-ERIC Higher Education Report No. 2, as qtd. in Kurfiss, 1988)

--reasonable reflective thinking that is focused on deciding what to believe or do.
(Ennis, 1987, Illinois Critical Thinking Project)

--persistent effort in looking at knowledge, weighing evidence, interpreting data, creating logical relationships between propositions, and drafting justified conclusions about the materials at hand. (Watson & Glaser, 1939)

--process of analyzing and evaluating ideas. (Greg & Renz, 1993)

--becoming aware of something you already do—becoming conscious of your own thinking process and that of others. (Rehner, 1994)

Although no two definitions are exactly the same, these definitions share three common characteristics or assumptions: active, developmental and dualistic.

Critical thinking is an active, developmental process characterized by a dualistic nature. Critical thinking is an active process in that it requires that one actively participate by thinking of him/herself and no longer relying on "slogan, dogmatic, or routine thinking; peer pressure; gut or knee jerk reactions; lack of perception; or the pull of some emotional argument" (Derzko, 1996).

Critical thinking is also a developmental process in that one can learn and practice the skills associated with critical thinking. Critical thinking is not an innate talent or characteristic, but a skill available to all through training. Combining the first two components, many scholars would agree that critical thinking involves skill (ability) and disposition (attitude) (Beyer, 1997; Garside, 1996; Kennedy, Fisher, & Ennis, 1991; Wilen & Phillips, 1995).

The more important dualistic aspect of critical thinking is that it is BOTH logic and structure AND creativity. The fully developed critical thinker has the ability to move between and integrate the two domains of critical thinking. To illustrate, the successful critical thinker in a basic speech class could appreciate the creativity required in topic selection, supporting materials, language, and attention-getting introductions. This same student would also appreciate the necessity of logic in organizational structure, subordinating points and subpoints, and the logic of the argument. As this example illustrates, critical thinking within the basic communication course is not new, but how it is taught might be.

Critical thinking is not an "add-on." Adding critical thinking as an additional content area and teaching it in the same way that other courses have traditionally been taught, with an excess of lecture and insufficient time for practice, is a recipe for failure (Paul, 1995). Students need to realize that the goal of learning is thinking (Costa, 1983.) Too many times students read materials, memorize them and repeat the material back to the instructor, a process that undermines the goal of critical thinking if that is the only measure of assessment used in the classroom. Unfortunately, many times this message is the one given to the students. The basic communication course, however, is one that can actively engage the students to become involved in the thinking and learning processes.

Critical Thinking within the Basic Course

Critical thinking is an educational necessity. Therefore, it is not surprising that most universities and colleges require some form(s) of critical thinking within their (core) curriculum. Creighton University, like many other universities, reviewed and revised their Core Curriculum (CC) requirements. In the spring of 1988, a committee (Curriculum 90) was formed to review,

construct, and implement a new "core" curriculum. The work of the Curriculum 90 committee culminated in 1993 with the introduction of the new college CC, effective Fall, 1993. This CC recognizes that

> The **proper excellence** that a good intellectual training should impart to the mind is a keen and subtle power of openness, flexibility, comprehension. To be able to enter into a different pattern of thought, to understand its point of view, to distinguish its principles, to see its consequences, to judge its lack of consistency within the perspective of its own view, to criticize it from within, to identify with its spirit and method without losing the sense of objective distance that is the fruit of an independent personal judgment, to see and appreciate it as a whole, to compare wholes with wholes, to get at that kind of understanding that is the basis of a real dialogue. It is a question of **education and training**. . . .(Undergraduate Core Curriculum [UCC]: Review, Revision, and Implementation, 1993, p. 1)

It is a matter of critical thinking; it is a matter of teaching students HOW to think.

Given the goals of the CC and the liberal arts orientation of the Jesuit institution, it is not surprising that critical thinking skills play an integral role in the new curriculum. One such unit of critical thinking skills is the basic communication course (COM 152), a logical connection according to Greg and Renz (1993), especially given Creighton's liberal arts studies.

> We believe that it is the teaching of critical thinking which best justifies placing the basic (communication) course within the core of a liberal arts curriculum. Liberal education seeks to free the learner from the baggage of ignorance, from unreasoned and unreasonable bias, and from intolerance to ideas and persons. Liberal education seeks to encourage the learner to explore and knowingly adopt understandings and attitudes which value human freedom and responsibility, knowledge and wisdom, and the dignity of every person. It is critical thinking that empowers students to begin the lifelong process of liberating themselves." (Greg & Renz, 1993, p. 9)

Within liberal arts education, critical thinking is naturally embedded in the basic communication course and has served as a compelling force in the construction of the basic communication course at Creighton University.

Critical thinking and the basic communication course are also explicitly and implicitly connected to the institutional mission. Creighton University defines itself as "a Catholic and Jesuit comprehensive university committed to excellence in its selected undergraduate, graduate and professional programs. . . . [it] exists for students and learning . . . [where] faculty and staff stimulate critical and creative thinking and provide ethical perspectives for dealing with an increasingly complex world" (Creighton University Bulletin, 1998, preface).

The College of Arts and Sciences' mission is more specific in its expectations and demands. The College

> demands of its student's breadth of learning. Fostered by experiences in both liberal
> arts and sciences and in professional education. The former seeks to develop
> perspectives and insights into the issues, events, ideas and values which abound in
> human experience; the latter seeks to instill a comprehensive knowledge of a field as
> preparation for both career competence and continuing professional growth. Both
> experiences seek to present truth as an individual and societal good by educating our
> students to be effective decision-makers. (Creighton College of Arts and Sciences
> Mission Statement, 1998)

In addition to effective decision making, the College promises to develop critical and creative thinking within a discourse community so as to prepare students to meet their world with real concern, creative freedom, firm purpose, and strong resolve (Creighton College of Arts and Sciences Mission Statement, 1998).

> In turn, the goals of a liberal education would require that students
> be a willing, active, and earnest partner in this educational process. The reward of this
> partnership is a deepened appreciation for life and a strengthened ability to respond to
> its demands with critical intelligence. Thus, Creighton's liberal education demands

responsible involvement from its students and promises, in return, personal and

academic enrichment. (Creighton University Bulletin, 1998, p. 92)

The Department of Communication Studies' basic communication course with its emphasis on the

active, developmental, dualistic vision of critical thinking is a blue print for meeting the promises

and demands of our institutional missions and goals.

Preliminary Assessment

The construction and implementation of the COM 152 course has left the Communication

Studies Department of Creighton University faced with now assessing student learning. The

difficulty in assessing critical thinking within the basic course is not identifying the necessity of

the activity or its integral connection with the curriculum and institutional mission. The difficulty

in assessing critical thinking within the basic communication course is getting faculty to define,

discuss, and fully incorporate it into their learning activities.

Many faculty may erroneously believe that they already include critical thinking in their

teaching. According to Das (1994), there is a belief among individual educators that it is a

routine matter for them to emphasize critical thinking in their instructional tasks, that indeed they

routinely do so and it is a bit of a wonder why it is necessary to discuss it as a problematic issue

in the educational field. Das concludes that critical thinking instruction is problematic "because it

demands more expertise and application on the part of the instructor than the traditional lecture

method does" (p. 334).

Even when utilized, research indicates that not all instructors are effective in teaching

these skills. Keely, Shemberg, Cowell, and Zinnbauer (1995) and Perkins (1985) indicate that

most classrooms are greatly lacking in critical thinking activities. Seshachari (1994) argues that

while many teachers pride themselves in their critical thinking and writing assignments, results

indicate that writing by students does not necessarily guarantee better grades. This should not

be surprising given that most teachers have not been trained to teach thinking skills and

strategies (French & Rhoder, 1992).

Incorporating critical thinking into our classroom requires learning on the educator's part, but may also require changes to the learning process. In order to determine what changes need to be made, however, it is important to determine the students' present critical thinking levels, as not all students arrive in the classroom equally prepared to engage in such higher order thinking (Pawlowski, 1997). We, at Creighton, pride ourselves on instilling critical thinking and as a starting point to engaging in a dualistic approach, we begin by assessing students' formal learning skills. Thus we are primarily concerned with answering the following question:

RQ: What is the level of critical thinking proficiency at which students are entering the basic course?

Method

Subjects

Two hundred and twenty-two undergraduate students from the COM 152 course were the participants in this study. This number does not reflect the total number of students in the basic course, but those instruments returned thus far. Ages ranged from 16–49; the mean age was 19.62 (SD= 3.05). There were 124 female and 98 male participants. In regard to diversity, 200 students were from the United States (domestic) and 22 were international students. These demographics are closely representative of the University population. One hundred and two freshmen, 71 sophomores, 31 juniors, 14 seniors, and 4 other (nontraditional and part-time) students completed the instrument.

Procedure

Students were given a packet of instruments to complete. Answer sheets were also provided. Due to time constraints and not wanting students to be rushed, some instructors allowed students to take the instrument home to complete and return it the next class period. Some students were given extra credit, however since this assessment is mandatory for the university, students were expected to complete the instruments.

Instrument

Students completed two sets of instruments. Only one of these was used in this preliminary study, which is the Watson-Glaser Critical Thinking Appraisal Test - Form S (1994). This test covers 5 areas of critical thinking; inference testing, recognition of assumptions, deductive thinking, interpretation of data, and evaluation of arguments. This test has been used as a national assessment exam and is not available through public domain. This test has 40 items. Unitizing a pre-and post-test research design, we divided the test into two parts; 20 questions to be used at the beginning of the semester and 20 questions to be given at the end of the semester. A representative sample of questions was taken from each of the 5 critical thinking areas. According to Watson and Glaser, internal consistency reliability of this instrument is .81; test-retest correlation is .81 (p < .001).

Data Analysis

Scores were hand tabulated and then entered into the computer. As this is a preliminary assessment, analyses consisted of descriptive statistics and one-way analyses of variance with the total score of correct answers being the dependent variable.

Results

In answering the research question of identifying the level of critical thinking proficiency at which students are entering the basic course, descriptive statistics indicated that scores ranged from 5 to 18 correct answers. The mean was 12.32 (SD = 3.08), indicating that students were performing at a 61.6 percent accuracy rate. Both the mode and median was 13.00.

One-way analyses of variance were conducted on demographic variables including age, sex, year in school, and national origin. No significant differences occurred in age, sex, and year in school. National origin showed statistical significance [F (1, 222) = 6.68, p = .01] such that domestic students (N=200) scored higher (M = 12.50) than international students (N=22; M = 10.73). This difference may occur due to the number of students in each group, however it does indicate that international students did score lower than domestic students on the critical thinking test.

Conclusions and Discussion

Regardless of statistical significance, some interesting conclusions can be drawn from looking at the demographic variables. In regard to sex, tradition has argued that males generally have greater development in the area of linear, conventional logical thought, sequential information; and abstract, analytical thinking (Goldberger, Tarule, Clinchy, & Belenky, 1996; Wood, 1997, p. 49). As shown by the current results, males (M = 12.29) were not superior to females (M = 12.35) in average scores. The traditional view that women have difficulty competing with men in courses such as math and science may need to be revisited.

Additionally, we sometimes teach in a consistent manner, not paying attention to the different learning styles. Regardless of outcome, men and women process information differently, using different sides of the brain for different functions (Wood, 1999). Educators should be striving to provide the best learning opportunities for our students, and acknowledging the different styles in which students learn. Thus we need to teach and assess both types of learning; the critical, analytical and the imaginative, intuitive thinking as it appears that both men and women are using multiple and perhaps equivalent methods of learning.

In regard to differences between the class standings (e.g., freshmen, senior), it is interesting to see the mean scores across the different classes. It was hoped that students would be able to reach at least 70% accuracy in test scores. The results however show that seniors barely obtained a passing score (See Table 1). As indicated, freshman scored 59.8 percent on the exam, sophomores and juniors scored approximately 62 percent; seniors scored 70.35%, while other (nontraditional and part-time) students scored 60 percent.

Piaget has argued that individuals should reach the formal stages of learning by the age of 11-12 (Piaget, 1967). Though recently, research indicates that not all students have reached the formal stage of learning by the time they reach college as may be typically assumed. In fact, many younger college-aged students have not attained all of the formal operations of thinking (Hester, 1994; Kennedy, Fisher, & Ennis, 1991; Lehman, 1963; Nickerson, Perkins, & Smith, 1985, Pawlowski, 1997). Lehman (1963) studied the changes in college students' critical

Table 1

Critical Thinking Scores Across Class Standings

Class Standings	Number Of Students	Mean Score
Freshman	102	11.96 (59.8%)
Sophomore	71	12.49 (62.5%)
Juniors	31	12.35 (61.8%)
Seniors	14	14.07 (70.4%)
Other	4	12.00 (60.0%)

N = 222. Mean scores and percentages are derived from the number of correct answers on a 20 item critical thinking test.

thinking, attitudes, and values in college. He discovered that there was a significant change from freshmen to seniors and that most of the change occurred in the freshmen and sophomore years.

This presents an interesting dilemma with our results. Students did perform better in their senior year, however, I don't know if one can be optimistic about only having a 10 percent increase in scores. One of the goals in higher education is to increase critical thinking in students. If we are truly doing this across the curriculum, then one would also assume that seniors taking the basic course would score higher than 70 percent, based upon their existing learning experiences.

What does this say about our goal of mission and the basic course? It appears that students *are* increasing their skills throughout their academic life, but not at a high standard of competency. One would assume that students would have at least the minimal logical skills when entering college, but as research and our results indicate, this is not necessarily the case. If other courses in the curriculum are not meeting these needs, then it is even more necessary that these skills be developed in the basic course since most, if not all, students are required to successfully complete the course. We can't assume that students already have these cognitive abilities, else we will be glossing over some of the fundamental skills that students need in order to be academically successful.

If we want to increase students' critical thinking and learning skills to the maximum potential, we need to teach in a manner that engages students in active learning and enhances logical thinking and creativity. We return then to the notion that educators need to take a dualistic approach in teaching students to critically think. We also need to challenge the assumption that the teaching of critical thinking is a normative practice. In summary, we need to engage both forms of learning in the classroom in hopes to inherently increase students' overall critical thinking skills.

One significant difference did emerge, however, between domestic and international students. The sample for international students is rather small, thus making definite conclusions premature at this time. In looking at scores, however, international students (M=10.73) scored 53.65 percent on the test, while domestic students scored 62.50 percent (M=12.5). Zimmermann (1995) argues that international students must adapt to a sociocultural system other than their own and that communication and becoming communicatively competent is central to this process. This process includes a cognitive dimension in which students must assign meaning to verbal and nonverbal messages (Zimmermann, 1995). This dimension must also include written messages if we want to look at the whole range of messages. In looking at the basic course, among others, Zimmermann (1995) indicates that we typically teach from a Eurocentric perspective. This may not be similar to how international students are taught and thus create additional problems for international students in our classrooms. If domestic students are having difficulty with critical thinking tests, then we must be more concerned with our international students who have an added burden of adapting to a new culture.

Overall, the results of this pretest assessment of the basic course have demonstrated the need to look more closely at teaching TRUE critical thinking in the classroom. Students may be entering the university with some formal learning skills, however at minimal level. In addition, men and women appear to be equal in their critical thinking skills, thus is it necessary to include the dualistic perspective in order to accommodate and strengthen logical and creative thinking.

Finally, we must pay more attention to how we are teaching international students, as they may be having difficulty with both critical thinking and the way they are being taught critical thinking.

Future Directions

As this was a pretest of critical thinking, our sample size – though closely representative of the University population – needs to be larger in order to create more equal numbers across demographics. The next step in this research project is to administer a posttest at the end of the semester in hopes that the critical thinking scores have increased throughout the basic course instruction. The results of the post-test should demonstrate that students are in fact learning critical thinking in the basic course and thus meeting the mission's challenge of developing "critical and creative thinking within a discourse community" (Creighton College of Arts and Sciences Mission Statement, 1998).

We must caution though, that this pre- and posttest does not completely meet the needs of the mission and the core. The dualistic approach to critical thinking includes both the logical and creative developmental process, and we must also develop ways of assessing the creative side of critical thinking. It is important that students develop the formal logical skills, but a complete package is not offered until we can also assess the creative side of critical thinking. While this may be more difficult, it is our obligation and a responsibility to uphold the core curriculum and the university mission. Thus, a way of measuring both logical and creative thinking skills is still needed.

Finally, and most importantly, students cannot learn these skills on their own. As previously noted, many faculty assume they already teach critical thinking (Das, 1994), which is unfortunately not always the case. If we think about all the individuals who teach the basic course (e.g., full-time faculty, part-time faculty, instructors, GTAs), consistency in being dedicated is not only necessary but also essential to creating an atmosphere for critical thinking is not only important – but also essential. To teach thinking is to be student-centered and

achievement-oriented (Hester, 1997).   If we are to assess critical thinking – then we must first

begin by teaching it.

References

Barr R., B., & Tagg, J. (1995, November/December). From teaching to learning: A new paradigm for undergraduate education. Change, pp. 333-360.

Beyer, B. K. (1997). Improving student thinking. Needham Heights, MA: Allyn & Bacon.

Boyer, E. L. (1989). What teachers say about children in America. Educational Leadership, 46, 73-75.

Costa, A. L. (1983). Teaching toward intelligent behavior. In W. Maxwell (Ed.). Thinking: An expanding frontier. (pgs. 211-222). Philadelphia, PA: The Franklin Press.

Creighton College of Arts and Sciences Mission Statement. (1998). WWW: http://puffin.creighton.edu/ccas/arts-sci.htm.

Creighton University Bulletin: Undergraduate Issue 1998-2000. (1998). Omaha, NE: Creighton University.

Das, T. K. (1994). Educating tomorrow's managers: The role of critical thinking. The International Journal of Organizational Analysis, 2, 333-360.

Derzko, W. (1996, April 13). Ten good reasons to teach thinking. Taken from the Leadership listserve on the Internet.

Greg, J. B., & Renz, M. A. (1993). Critical thinking. In L. W. Hugenberg, P. L. Gray, & D. M. Trank (Eds.). Teaching and directing the basic communication course (pp. 9-22). Dubuque, IA: Kendall/Hunt Publishing.

Ennis, R. H. (1987). A taxonomy of critical thinking despositions and abilities. In J. B. Baron, & R. J. Sternberg (Eds.), Teaching thinking skills: Theory and practice (pp. 9-26). New York: W. H. Freeman.

French, L. N., & Rhoder, C. (1992). Teaching thinking skills: Theory and practice. New York: Garland Publishing, Inc.

Garside, Colleen, (1996). Look who's talking: A comparison of lectures and group discussion teaching strategies in developing critical thinking skills. Communication Education, 45, 212-227.

Goldberger, N., Tarule, J., Clinchy, B., & Belenky, M. (1996). Knowledge, difference, and power. New York: Basic Books.

Hester, J. P. (1997). Teaching for thinking. Durham, NC: Carolina Academic Press.

Keeley, S. M., Shemberg, K., Cowell, B., & Zinnbauer, B. J. (1995). Coping with student resistance to critical thinking. College Teaching, 43, 140-145.

Kennedy, M., Fisher, M. B., & Ennis, R. H. (1991). Critical thinking: Literature review and needed research. In L. Idol and B. F. Jones (Eds.), Educational values and cognitive instruction: Implications for reform. (pgs. 11-40). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Kurfiss, J. G., (1988). Critical thinking: Theory research, practice, and possibilities. ASHE-ERIC Higher Education Report No. 2. Washington, DC: Association for the Study of Higher Education.

Lehman, I. J. (1963). Critical thinking, attitudes, and values in higher education. East Lansing, MI: Michigan State University.

Nickerson, R. S., Perkins, D. N., & Smith, E. E. (1985). The teaching of thinking. Hillsdale, NJ: Lawrence Erlbaum Associates.

Paul, R. (1995). Critical thinking. The Center and Foundation for Critical Thinking.

Pawlowski, D. R. (1997). Challenging students to think: Making critical thinking and writing central to the basic course. Paper presented at the National Communication Association Annual Convention, Chicago, IL.

Perkins, D. N. (1985). Postprimary education has little impact on informal reasoning. Journal of Educational Psychology, 77, 562-71.

Piaget, J. (1967). The child conception of the world. London: Routledge & Kegan Paul, Ltd.

Rehner, J. (1994). Practical strategies for critical thinking. Boston: Houghton Mifflin.

Seshechari, N. C. (1994). Instructor-mediated journals. College teaching, 42, 7-11.

Undergraduate core curriculum: Review, revision and implementation. (1993). Omaha, NE: Creighton University.

Watson, G., & Glaser E. (1939). Manual of directions for discrimination of arguments test. New York, NY: World Book Company.

Watson, G. B., & Glaser, E. M. (1994). Watson-Glaser critical thinking appraisal: Form S. The Psychological Corporation. San Antonio, CA: Harcourt Brace & Company.

Wilen, W., & Phillips, J. A. (1995). Teaching critical thinking: A metacognitive approach. Social Education, 59, 135-138.

Wood, J. T. (1999). Gendered lives: Communication, gender, and culture. Belmont, CA: Wadsworth Publishing Company.

Zimmermann, S. (1995). Perceptions of intercultural communication competence and international student adaptation to an American campus. Communication Education, 44, 321-335.

CS510028

REPRODUCTION RELEASE
(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title Critical Thinking in the Basic Course: Are We Meeting the Needs of the Core, the Mission, and the Students?	

Author(s): Donna R. Pawlowski + Mary Ann Danielson

Corporate Source: Creighton University	Publication Date: Nov, 98

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 1	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2A	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2B
Level 1 ↑ ☒	Level 2A ↑ ☐	Level 2B ↑ ☐
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here,→ please

Signature:	Printed Name/Position/Title: Donna Pawlowski, PhD Asst Prof
Organization/Address: Dept of Communication Studies Creighton Univ, Omaha NE 68178	Telephone: 402-280-2531 FAX: 280-2143
	E-Mail Address: drp@creighton.edu Date: 3/1/99

(over)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2nd Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com