DOCUMENT RESUME

ED 350 599   CS 213 358

AUTHOR   Latchaw, Joan S.
TITLE   Where Is the "Critical" in Critical Thinking?
PUB DATE   Mar 92
NOTE   18p.; Paper presented at the Annual Meeting of the
                Conference on College Composition and Communication
                (43rd, Cincinnati, OH, March 19-21, 1992).
PUB TYPE   Speeches/Conference Papers (150) -- Information
                Analyses (070)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   Controversial Issues (Course Content); *Critical
                Thinking; Educational Trends; Elementary Secondary
                Education; Higher Education; *Politics of Education:
                Textbook Content; Textbook Publication; *Textbooks;
                Thinking Skills; Writing Processes
IDENTIFIERS   *Writing Contexts

ABSTRACT
        Because it has been overworked, underanalyzed, and
undefined, critical thinking has come to mean anything or nothing.
The best work on critical thinking imagines it as an act of composing
and revising. Definitions of critical thinking have undergone a
historical evolution--from general problem-solving "skills" to a
complex of higher-order reasoning strategies. When critical thinking
in composition is well grounded in theory, exciting pedagogies
emerge. Basic errors in textbooks hinder critical thinking; more
reliable textbooks often give only a nod to critical thinking. All
too often, texts merely undergo a facelift to make them more
marketable. John Patrick recommends that students learn to develop
critical attitudes by applying issues of constitutional democracy to
the real world. However, the critical inquiry he advocates is often
construed as dangerous: (1) issue-centered classrooms emphasize
controversy; (2) teachers are unprepared and uncomfortable with
inquiry methods; and (3) schools have traditions and administrations
that are not easily changed. Despite these problems, some educators
are inventing new pedagogies and designing research consistent with
critical thinking theory. Critical thinking's future depends on the
strength of further inquiry to reveal whether this movement is
trickling down into the nooks and crannies where it is truly useful.
(A 15-item annotated bibliography is attached.) (RS)

Where is the "critical" in critical thinking?

Joan S. Latchaw

Where is the "critical" in critical thinking?

Critical thinking, we are told, and as evidenced by over 3000 entries in ERIC, is good for us. It is, as John McPeck says, a bit like favoring freedom, justice or a clean environment. It is advertised as a curative for all manner of ills. Everyone sermonizes. Academics, like most other people, float happily along with current trends. However, there is danger of getting stuck in a mudbank or floating along on someone else's raft. In either case, meaning is sacrificed.

Critical thinking may even be counterproductive in some cases. As a poet, when I begin composing, I want the analytical, judgmental part of my mind to recede. Suppressing judgment may also be necessary or desirable in more formal kinds of tasks--at least in the initial stages.

Because it has been overworked, underanalyzed, and undefined, critical thinking has come to mean anything or nothing. A new textbook entitled The Literate Mind: Reading Writing and Critical Thinking, has no entries for critical thinking in the index and only one reference to it in the entire book. The raft this author was floating on was the Toulmin model of argument, rhetorical strategies, and the modes--pretty standard fare.

Similarly, at a recent CCCC convention in a session called "Critical Thinking and Basic Writing," the popular presentation demonstrated how basic writers planned and produced a research paper by doing library research and interviewing experts. This "news" (a standard senior high school project) was so revolutionary that one member of the audience said he would have to rethink his whole notion of Basic Writing--by which he meant basic skills. As a reader of journals and a teacher whose

1

assignments ask basic writers to respond to Borges. John Berger. and Lewis Thomas, I felt like I was swimming upstream.

The best work I've found on critical thinking (in social studies. library science. reading theory. history. composition) avoids mere reflection. Rather it imagines critical thinking as an act of composing and revising. For instance. Haas and Flower. used a construction metaphor as an investigative tool of inquiry in their study of rhetorical reading strategies. Each discipline, then. must interrogate the meaning of critical thinking according to its knowledge base and habit of mind. Problem solving in math may have little relationship to decision making in social studies. which may account for a lack of transfer across domains.

My presentation will focus on definitions of critical thinking, theories of critical thinking, emerging pedagogies. the future of critical thinking and suggestions for further research.

Definitions of critical thinking have undergone a historical evolution--from general problem solving "skills" to a complex of higher order reasoning strategies. Edys Quellmalz (in my annotated bibliography) gives a good overview. I agree with Siegel and Carey who say educators must "think about all the factors and behaviors that [the] process [of critical thinking] can involve." These include inquiry, hypothesizing, examining assumptions, weighing alternative interpretations. evaluating, decision-making, drawing conclusions. and meta-cognition. This listing is. of course. an oversimplification. and does not imply a sequence or method of operations. Cornbleth. a major contributor to critical thinking theory. identifies six elements of inquiry. some of which are in my list; however, some social studies experts claim inquiry works against decision making

2

4

and citizen action. Reading theorists stress meta-cognition, interpretation and drawing conclusions. Physicists on problem-solving.

Jere Brophy's article, "Teaching Social Studies for Understanding and Higher-Order Applications," is one of the most impressive studies I came across: Brophy first defines critical thinking as it relates to his field: a process of determining the authenticity, accuracy or worth of information or knowledge claims, a process of raising and pursuing questions about our own and others' claims, definitions, evidence and beliefs. Next, he determines what constitutes knowledge within his particular discursive field. Experts generally agree that knowledge in social studies should be organized around powerful concepts like rules and norms, change, values, issues. Brophy's method itself reflects critical inquiry; he states that certain criteria are needed to **delineate and justify** these powerful concepts. Is the concept generalizable from a great number of examples, is it valid in terms of agreed upon definitions? Is it contemporaneous? Brophy is careful to discuss each criterion in terms of its advantages and disadvantages. Such inquiry, he claims, generates theory-based curricula which will result in creating citizens who are competent, reflective, and concerned (these terms are defined) and who can apply knowledge to a variety of issues and tasks.

While critical thinking in composition is often ill-conceived and imitative, when it is well grounded in theory, exciting pedagogies emerge. One theory holds that we should model our methods on an expert rather than a novice model. This means that work students engage in should be "real work"--that professionals and academics would find respectable. (I will return to this idea in the textbook section.) Toni-Lee Capossela, in a composition course, takes sociolinguistics as the subject under

3

5

investigation. The term *investigation* is pivotal since it signifies inquiry (an aspect of critical thinking I have argue for), rather than knowledge-telling.

Students use Peter Farb's <u>Word Play</u> to learn the terms and conventions of sociolinguistics, and to "test the premises of the discipline against their own experience" (76). They track down Farb's sources, then test his claims against other research and against their own investigations into particular speech communities. Thus the course sets up a "legitimate research situation for students," an approach which assumes that basic thinking/basic skills do not precede critical thinking. Although Caposella includes no student writing as evidence, students perceived that they had done significant work.

To behave as experts, to investigate "real questions" students must learn to read like experts. Thus, more research is combining reading, writing and critical thinking theories. These are merged into a powerful pedagogy in Donahue and Quandahl's course for basic writers. They insist that "the same questions asked by critical theory--what reading is, what the status of a text is, how we clarify approaches to interpretation--be asked by composition teachers.

Donahue and Quandahl chose Freud's case study of Dora because it conflates reading and writing: Freud reads his clients' stories by rewriting them. The authors teach about writing and meaning by revealing both the "text's insights and its blindness." In a series of three assignments, the students were asked to analyze the case study from different perspectives--Dora's, Freud's, and then finally their own. Composing a reading in stages involved important aspects of critical thinking: holding off on decision making by considering various alternatives, questioning the

4

6

text, and testing the assumptions underlying both writing and psychological investigation. The authors' work makes a significant contribution both theoretically and pedagogically since it is a demonstration that "interpretive reading requires first a writing and then a rewriting of a text" (56). What is particularly powerful in Donahue and Quandahl's course is the success they and their students - erienced. At first the reading seemed far too difficult and the writing impossible, but with strategies and patience these "remedial" students achieved an impressive degree of literacy. They performed better on the exit exam than previous classes and reported better success in reading difficult texts in later semesters.

At Shepherd College, a sociology professor has enlisted his senior seminar students in a large-scale assessment project involving a FIPSE grant. They were instrumental in implementing and designing the program. Without their help, assessment would probably have been curtailed due to lack of funding and trained personnel.

If time permitted, I could cite more definitions, theories and practical applications proving critical thinking is indeed good for us.

But there are larger concerns which gnaw away at my convictions. There is evidence that we don't want a nation of critical thinkers. A provocative analysis of <u>Becoming a Nation of Readers</u> reveals that metaphors applied to reading are antithetical to critical thinking theory. For instance, *journey* suggests a correct, linear path with a specified goal; reading as training implies a skills approach; educational policy as quality control suggests an input/output model; reading instruction as business (efficiency) implies time-on task; and reading problems as disease

5

(remediation) implies illness. These metaphors ignore reading as play of alternative interpretations, as skeptical inquiry, as genuine investigation.

Furthermore, critical thinking is potentially dangerous and might threaten our national health--our canons, our theories of education, even our politics and social structure, if we indeed create the reflective, competent citizens Brophy speaks about.

I explore these issues in the next section of my talk, on textbooks. By investigating their nature and function, I will show how the politics of critical thinking gets played out.

The dominion of textbooks. I use the word "dominion" specifically because textbook marketing is big business and politically loaded. The most egregious case I have unearthed was highlighted on NPR in February of this year. Texas and California form a central warehouse for national textbook production and distribution. There are outside consultant groups with requests which may or may not be considered such as creationism vs. evolution, the inclusion of Native American lore, etc. Texas and California's desires take precedence as does getting to press. However, a number of history textbooks (by major publishers) were analyzed for factual accuracy. Hundreds of errors were found, such as: the Korean War was ended by dropping the bomb, Sputnik was an intercontinental ballistic missile, Douglas McArthur led the House Unamerican Activities Committee in the '50s. Apparently, many of these could be explained through revision glitches: although questions had been changed, the corresponding answers had not. Revealing these errors made waves: Scott Forsman along with 3 other publishing houses were fined $240,000 and asked to clean up their acts. They did--sort of. Even after revision, 150 + errors remained. Basic error hinders critical thinking since background information is

obviously fundamental to critical thinking, although it is only one component.

More reliable textbooks and readers I examined gave a nod to critical thinking (devoting a few introductory pages to critical reading, analyzing, synthesizing), but never referred to it again. Questions following essays might be construed as higher order critical thinking skills, but then again they might not. Pedagogies are rarely offered. All too often, textbooks have merely undergone a facelift. Several titles such as Informal Logic and The Process of Argument claim a critical thinking method, but the term means little more than the usual problem-solving, decision making, inquiry strategies long appropriated in argument models. But, because critical thinking has become a movement, it is marketable.

The failure to transform critical thinking into more revolutionary pedagogies is, in part, political. John Patrick found that high school government texts foster passive transfer of facts and ideas in being encyclopedic and accomodating a national curriculum. He recommends that students learn to develop critical attitudes by applying issues of constitutional democracy to the real world.

However, the critical inquiry he advocates is often construed as dangerous. First, issue-centered classrooms emphasize controversy; many parents, according to Richard Gross, don't want their children to question traditional values, especially those related to their immediate community. And controversial issues are considered negative because they upset children--and we mustn't be upset.

Second, teachers are unprepared and uncomfortable with inquiry methods. Traditional textbooks and other materials, most readily available, are antithetical to issue-centered classrooms. They are fact

7

9

oriented, not problem oriented. Textbook teachers would have to significantly alter their pedagogies and design new materials. Then there is the issue of authority. Some teachers are intimidated if they don't have the right answer, and feel undermined in collaborative explorations of real problems. And finally, testing becomes more difficult. Objective questions would no longer be appropriate. Essays in which divergent perpsectives are considered may be the "test" of choice. Of course, writing is more time consuming.

Third, schools have traditions and administrations which are not easily changed. Even something as apparently minor as adopting a new handbook can create havoc. One institution I know is a case in point. While most of the faculty teach writing in stages, on computer, or collaboratively, and focus on critical reading, they are in the grip of the Harbrace Handbook, which is theoretically antiquated. But, teachers know right where to send students for comma splices, diction, etc., sending the message that grammatical concerns have the highest priority. Theory and practice are once again at odds. Administrations are invested in the business of bureaucracy. As Shaver says, "the school structure is set up to reward stability, not innovation and change." Re-examining the curriculum will undoubtedly cause a much greater disturbance than changing handbooks. And, inquiry methods might undermine the order and discipline in a classroom, administrators argue.

Despite these problems, the more courageous are inventing new pedagogies and designing research consistent with critical thinking theory. For instance, historians and political scientists have been questioning underlying assumptions in their fields, precipitating a debate over national unity versus pluralism. William Bigelow, after "stealing" a student's purse,

led his class into a discussion about Columbus' motives in *discovering* the new world. Playing with metaphorical meanings--stealing/discovery--the class questioned underlying social and cultural values. This inquiry led to a semester long investigation of textbooks: the validity of their claims and their biases. Students became skilled in close reading--examining narrator perspective, authorial voice and eventually evaluating national unity and even the teacher's methodology.

Composition theorists are also stirring the waters. Avon Crismore uses the textbook journal to promote critical thinking in a basic writing course. Students, through marginal comments, were asked to evaluate content, style, and function of several composition textbooks. The process enabled them to challenge authors' assumptions and conclusions and reflect on their own beliefs:

> The essays in this chapter seem to convey the writer's
>
> personal opinions in some areas. Is there any way to
>
> avoid this in an informative essay or is this inevitable?

This method eventually led to real world collaboration. The class's findings were shared with authors and publishers, who used the information to revise subsequent editions of their books.

I have tried to give a panoramic view--the worst to best scenarios-- in critical thinking. Having considered these, I would like to conclude with some thoughts about critical thinking's future. If we are to experience any significant change, theories must be put into practice--at all levels of education. This may be ivory tower fantasizing. But I agree with Shaver who calls for reformers to "speak out . . .[against] the inertia that tends to dominate the schools." And some of us are "speaking" quietly but independently in our individual classrooms. Even some ACT assessment is

reflecting a critical thinking mood. Their COMP outcomes test for seniors asks students to synthesize procedural knowledge and apply it to real world decisions. In an essay form.

Critical thinking's future, I believe, depends on the strength of further inquiry. It is essential that we investigate our metaphors (like critical thinking, composing, revising) since they hide the gaps and contradictions we are invested in masking. Foucault calls these contradictions merely "the illusion of a unity." For instance, if I say writing is a process, I foreground a step-by step method--a particular something that sounds prescribed and linear. We know this to be false. And the notion of product, another particular something which gets graded--is concealed. Thus the contradiction.

We must hunt down and identify these contradictions and gaps. Are programs, texts, courses doing what they profess? Research must continue to ask such questions. Joseph Trimmer, in his 1987 empirical study assessing a large number of Basic Writing programs across the country, found that their courses focused primarily on basic skills. They claimed a critical thinking approach. By examining their materials (workbooks, worksheets), he found the contradiction.

I would like to see a similar study investigating teacher education programs. Do they employ critical thinking approaches? How many do and to what extent? Are teacher programs primarily training or education, and how are these terms defined? To what degree do methods courses drive curricula? At what levels of education are critical thinking approaches instituted? Where are they ethnographically?

We need empirical data on Writing-Across-the Curriculum programs, or writing to learn as it is now called. Is critical thinking learned in such

10

programs and how can we test for it? There still is no agreement on the validity of standardized critical thinking tests. ACT admits that theirs is basically a substitute for their reading comprehension exam.

Further research should reveal whether this movement is trickling down into the nooks and crannies where it is truly useful. While exploring this question, we must continue to reflect, clarify the waters, and create more enduring liferafts.

Annotated Bibliography

Critical Thinking Theory

Bruffee, Kenneth. "Social Construction, Language and the Authority
    of Knowledge: A Bibliographical Essay." College English 48
    (1986): 773-790.
    Drawing on Clifford Geertz and Richard Rorty, Bruffee claims
    that knowledge is disciplinary, that "fact, texts, selves, and so on
    [are] community generated." That is, knowledge is a social
    construct. As such, we become critical thinkers by "playing off
    alternatives against one another, rather than playing them off
    against criteria of rationality." The essay discusses composition
    studies and reading theories within this social constructionist
    framework.

McPeck, John E. Critical Thinking and Education. New York:
    St. Martin's Press, 1981.
    An important critic of the critical thinking "movement," he argues
    (with Richard Ennis) that critical thinking is not equatable with
    formal logic, but encompasses other higher order concerns which
    are more complicated than "skills"--rather a mode of thinking which
    is not generalizable: transferable across domains. (For counter-
    arguments, see Richard Paul's "McPeck's Mistakes" in McPeck's
    Teaching Critical Thinking)

Quelimalz, Edys S. Designing an Integrated Instructional and Assessment
    System for Critical Thinking Skills. ERIC, 1984. ED 249 589
    A comprehensive project involving the Pittsburgh public school
    system, this study traces and analyzes definitions and theories of
    critical thinking historically; it proposes a pedagogical program
    based on expressing and explaining an assertion; it constructs an
    assessment model based on interpretation and evaluation. A good
    overview. Bibliography reflects cognitive theory approach.

Siegel, Marie and Robert F. Carey. Critical Thinking: A Semiotic
    Perspective. Bloomington, IN: NCTE, 1989.
    A provocative examination of critical thinking as dynamic and
    non-linear, as a process of reading signs and reaching new
    conclusions. Focuses on skepticism, reflection, and domain-
    specific knowledge. Doubt motivates inquiry when an anomaly
    is encountered, a situation which inspires a search for meaning,
    "not enduring truth."

Bloome, et al. "Reading Instruction and Underlying Metaphors in
Becoming a Nation of Readers." Counterpoint and Beyond:
A Response to Becoming a Nation of Readers. Ed. Jane L.
Davidson. Urbana: NCTE, 1988. 5-16.
The authors analyze this document which has alarmed educators
and the populace, revealing common notions of what reading is.
A Nation of Readers, in using metaphors for reading such as
journey (suggesting a correct linear path with a specified goal),
training (a skills approach), *input/output* (suggesting quality
control), *business* (time-on-task)--ignores reading as negotiation, as
social interaction between teacher and student, writer and audience.
In short, these views are antithetical to critical thinking theory.

Flower, Linda. "Cognition, Context, and Theory Building." CCC 40
(1989): 282-311.
Using important aspects of critical thinking (hypothesizing,
inquiry, significance of context), Flower re-examines the
composing process. The paper itself demonstrates critical inquiry
because it is driven by a hypothesis: how does context cue
cognition? She concludes that the terms construct each other. We
must teach students what terms like *evidence, results, validity* mean
within any particular discipline.

Haas, Christina and Linda Flower. "Rhetorical Reading Strategies
and the Construction of Meaning." CCC 39 (1988): 167-183.
The authors, through a think-aloud protocol, determine what
rhetorical strategy means for novice and expert readers. Novices
view reading as understanding words, paraphrasing, and
recognizing conventions and structures (paragraphs, topic
sentences, generalizations, detail); their content/information
process is not rhetorical. However,experts construct meaning by
creating a hypothesis, which consists of context, function, readers'
beliefs, contradictions and uncertainties. While the authors
conclude that students must learn rhetorical strategies to become
critical readers, they offer no pedagogical solutions.

Tierney. R. J. et al. "The Effects of Reading and Writing upon Thinking
Critically." Reading Research Quarterly 24 (1989): 134-169.
An empirical study which investigates whether "writing in
combination with reading prompts more critical thinking than
reading alone, writing alone, or either activity combined. . ."

The study was based entirely on student writing. Critical thinking was defined to a large extent as metacognition: thinking from different perspectives, then contemplating the *nature* of one's thoughts, doubting and inquiring: as evaluating what is read: as maintaining authority (refusing to give it over to the text). The authors concluded that reading and writing in combination foster critical thinking; students did more revising (additions, deletions, substitutions) and higher quality drafts, and the thinking was more dialectic.

Theory into Practice: Pedagogical Applications

Brophy, Jere. "Teaching Social Studies for Understanding and
　　　Higher-Order Applications." Elementary School
　　　Journal Mar. (1990): 351-417.
　　　A social constructionist perspective, this extensive article is useful
　　　for designing a *model* for critical thinking. Its rigorous attention
　　　to definitions, discussion of disciplinary and inter-disciplinary
　　　concerns and pedagogical applications are exemplary. In the case
　　　of social studies, the focus of the article, experts generally agree
　　　that knowledge should be organized around powerful concepts like
　　　rules and norms, change, values, issues. Brophy's method itself
　　　reflects critical inquiry; he states that certain criteria are needed to
　　　delineate and justify these powerful concepts. Is the concept
　　　generalizable from a great number of examples, is it valid in terms
　　　of agreed upon definitions? Is it contemporaneous? Each criterion
　　　is considered in terms of its advantages and disadvantages. Such
　　　inquiry, he claims, generates theory-based curricula which will
　　　result in creating citizens who are competent, reflective, and
　　　concerned (these terms are defined) and who can apply knowledge
　　　to a variety of issues and tasks.

Storinger, Richard and Lorenz Boehm. Critical Literacy Project.
　　　ERIC, 1988. ED 317 243
　　　Report of a year-long faculty development seminar designed to
　　　promote critical reading, writing, and thinking at Oakton
　　　Community College in Illinois. This document addresses how
　　　theory is translated into classroom methodology more directly and
　　　effectively than other studies I examined. It focuses on how to
　　　foster more independent learning, WAC programs, and better
　　　strategies for teaching reading and writing. The project culminated
　　　in a survey (of teachers), a 30 minute promotional videotape, a
　　　national conference, collaboration with the public school system,
　　　and greater enthusiasm and commitment from teachers.

Texts

Bigelow, William. "Discovering Columbus: Rereading the Past.
    Language Arts 66 (1989): 635-643.
    Based on Freirian model, author begins class by "stealing" a student's
    purse--leading to assumptions about "discovery." Students then
    critically examine "innocent" stories of earlier classroom histories:
    what were Columbus' real motives, how factual were the accounts,
    whose perspective is prominent? Students began to read skeptically,
    which student samples of writing demonstrate. Evidence of
    thoughtful, close reading. However, the politically correct attitude
    is Bigelow's: students led to imitate his view. Is critical thinking as
    objective as the term implies? To author's credit, one of student
    excerpts questions Bigelow's method and assumptions.

Crismore, Avon. Initiating Students into Critical Thinking,
    Reading, and Writing about Texts. ERIC, 1987. ED 288 202
    Outlines the need for new critical thinking practices, and provides
    a model for basic writers: making marginal notes in "theory-
    based/research-based [composition] textbooks," although there is no
    further definition of such texts. Based on philosophy that critical
    thinking is taught within a content area, Crismore's method led to
    students' re-evaluation of themselves, their teachers, the authors of
    textbooks and publishing strategies. The latter two were seriously
    considered by experts.

McAninch, Stuart A. "The Educational Theory of Mary Sheldon
    Barnes: Inquiry Learning as Indoctrination in History Education."
    Educational Theory 40 (1990): 45-52.
    A historical overview of history curricula and texts (secondary
    schools) from late 19th century. Highlights ongoing debate over
    national unity vs. pluralism. Uses Barnes to argue value of inquiry as
    a tool for analysis, synthesis and spirituality but criticizes her for
    using CT methods to find "objective truths about human progress and
    the proper civic roles of Americans. . ." McAninch claims that
    historical scholarship is still plagued with this problem. However,
    her pluralistic approach, now politically correct, might be considered
    just as subjective as Barnes'.

Patrick, John J. High School Government Textbooks. ERIC, 1988.
　　　　Examines the characteristics, weaknesses, criticisms in treatment of
　　　　Constitution in government texts, and offers. recommendations.
　　　　Short but insightful article showing that the tendency to be
　　　　encyclopedic and adjust to a national curriculum leads to passive
　　　　transfer of facts and ideas. Students not encouraged to develop
　　　　critical attitudes or use information in real world.
　　　　Recommendations: stress **concepts** of constitutional democracy
　　　　which will be thematic throughout; use case studies for dramatic
　　　　effect; teach higher order skills of critical thinking to promote
　　　　values and issues of constitutional democracy.

Sullivan, Laura A. Public Speaking and Library Research:
　　　　Textbook's Responsibilities. ERIC, 1989. ED 314 803
　　　　An interdisciplinary approach to critical thinking, the author being
　　　　both reference librarian and speech instructor. Each of 9 speech
　　　　texts, focusing on library research, failed to emphasize critical
　　　　thinking skills because they used a list approach, thus falsely
　　　　perpetuating the myth that piling up information makes for good
　　　　speeches. The availability of online searches suggests that
　　　　computers can do the work; texts, however, cannot **evaluate** and
　　　　interpret information, a higher order critical thinking skill.
　　　　Student speeches are dull as a result.