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Teaching critical reading in the study skills

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TEACHING CRITICAL READING IN THE STUDY SKILLS

by

Rona Karau Kasdorf

A Research Paper

Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Arts in Education (Reading Clinician)
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This research paper has been
approved for the Graduate Committee
of the Cardinal Stritch College by

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CHAPTER I
THE PROBLEM

No man can reveal to you aught but that which already lies half asleep in the dawning of your knowledge.

The teacher who walks in the shadow of the temple, among his followers, gives not of his wisdom but rather leads you to the threshold of your own mind.

The astronomer may speak to you of his understanding of space, but he cannot give you his understanding.

The musician may sing to you of the rhythm which is in all space, but he cannot give you the ear which arrests the rhythm nor the voice that echoes it.

And he who is versed in the science of numbers can tell of the regions of weight and measure, but he cannot conduct you thither.

For the vision of one man lends not its wings to another man.

Kahlil Gibran ¹

¹Kahlil Gibran, The Prophet. (New York: Alfred A. Knopf Publisher, 1971), pp. 56-57.

Educators have a most difficult task. All individuals living in the world today are engaged in a growth process, their own unique becoming. It is the educators' goal to help students in this process. Einstein went beyond the scientific theory of his time and enabled people to understand more about the world in which they live. What the area of education needs is educators who will help children develop creative and critical minds.

Problem

Students in Milwaukee's middle grades (4-8) are confronted with the task of learning the reading study skills, that is, the basic map, graph, table and reference skills which require higher level thinking. It is the author's purpose to review literature on critical reading and apply this knowledge to develop methods or devise techniques which will benefit children experiencing difficulty in mastering the skills program.

Definition of Critical Reading

Critical reading has no common definition; hence, for this study the author has chosen to adopt Williams¹ broad definition, "intelligent reading directed toward the learning purposes of the individual child. It involves thinking beyond the level of simple recall. It should provide numerous situations in which practical problems may be used."

¹Gertrude Williams, "Provision for Critical Reading in Basic Readers," Elementary English, 36 (May, 1959): 327.

CHAPTER II

SURVEY OF RELATED LITERATURE

Nay, in every epoch of the world,
The great event, parent of all others,
Is it not the arrival of a Thinker
In the world?

Carlyle¹

Education has many major goals. One of these goals is to teach children to think creatively and critically so that they can weigh the information and evidence rather than regurgitate what their teacher or some author has said. In the current thinking, this goal has seemingly remained elusive and a hope instead of becoming a teaching reality. It would appear that one of the inhibiting factors may be the concept of what is meant by "teaching" and of what critical and creative thinking consists. If by teaching we simply mean to

get across the subject, the ingredient of pedagogy is in jeopardy. For only in a trivial sense is a course designed to get something across merely to impart information. There are better means to that end than teaching. Unless the learner develops his skills, disciplines his tastes, deepens his view of the world, the 'something' that is got across is hardly worth the effort of transmission.²

¹Thomas Carlyle. On Heroes and Hero Worship, Lecture 1 quoted in Kate Louise Roberts Hoyt's New Cyclopedia of Practical Quotations (New York: Funk and Wagnalls Co., 1958): p.787.

²Jerome S. Bruner. "The Growth of Mind" in Psychology of Education, New Looks, ed. Gary A. Davis and Thomas F. Warren (Lexington, Massachusetts: D.C. Heath and Co., 1974), p.133.

Critical Thinking

Educators want their pupils to think more effectively, clearly, coherently, hence, to think critically. According to DeZafra, we must recognize that critical thinking takes place at different levels. DeZafra's definition of critical thinking included the control of emotions; curbing impulsiveness; recognition of cause and effect; that it is creative; it is problem solving; it is the questioning of the traditional and the modification for improvement; it can involve the analysis of a problem into its component parts; theories and generalizations can evolve from an understanding of the interrelationships among minutiae; and, it is the making of choices. DeZafra summarized critical thinking as "the intelligent meeting of situations in the light of past experiences, present and often changing facts and conditions, and probable developments."¹ Some of the obstacles to critical thinking according to DeZafra are: exams which test memory rather than power of judgment and interpretation; educators who reason by analogy and illogic; heterogeneous classes; too large classes; the prosperity of the Americans for this doesn't breed hungry intellect; authoritarian homes; religious orthodoxy; and that certain defensive psychology has made it 'safer' hence fostering individuals to become conformists.

Twelve aspects which characterize a critical thinker according to Ennis are:

1. Grasping the meaning of a statement.
2. Judging

¹Carlos DeZafra Jr., "Teaching for Critical Thinking," The Clearing House 41 (December, 1966): 231.

whether there is ambiguity in a line of reasoning. 3. Judging whether certain statements contradict each other. 4. Judging whether a conclusion follows necessarily. 5. Judging whether a statement is specific enough. 6. Judging whether a statement is actually the application of a certain principle. 7. Judging whether an observation statement is reliable. 8. Judging whether an inductive conclusion is warranted. 9. Judging whether the problem has been identified. 10. Judging whether something is an assumption. 11. Judging whether a definition is adequate. 12. Judging whether a statement made by an alleged authority is acceptable.¹

Ennis also proposed an analysis of critical thinking in a three dimensional scheme which is composed of a logical dimension, "covers judging alleged relationships between meanings of words and statements;"² a critical dimension, "covers knowledge of the criteria for judging statements;"³ and, a pragmatic dimension, "covers the impression of the background purpose on the judgment, and it covers the decision as to whether the statement is good enough for the purpose."⁴

"Learning and thinking are interrelated,"⁵ according to Lorge, however, thinking must be learned. He advocates that "thinking can be taught by stimulating the learner to overcome obstacles within his intellectual range at his developmental stage and at his intellectual level."⁶ Lorge stresses a satis-

¹Robert H. Ennis, "A Concept of Critical Thinking," Harvard Educational Review 32 (Winter, 1962): 84.

²Ibid.

³Ibid., p.85

⁴Ibid.

⁵Irving Lorge, "The Teacher's Task in the Development of Thinking," The Reading Teacher 12-13 (February, 1960): 170.

⁶Ibid., p.171

fyng experience, a stimulating not frustrating experience when learning successful thinking. However, thinking is an active process which can be taught anywhere -- at play, in every subject area, and at home, therefore, the attitude that every person can grow by applying knowledge from former experiences to new situations as "thinking requires the rearrangement of ideas, principles, and skills in finding the path from what is known to what is to be discovered,"¹ always keeping in mind that thinking does not always produce a set answer. The educator can develop children's thinking by showing him how to organize information and experiences about problems by recognizing similarities or differences.

According to Usery critical thinking is

the act of searching for the clearest ideas about a subject derived from the facts, points of view, observation, and other elements. The searching continues until one reaches a point at which he understands the intricacies of the problem so that he is able to use logical and creative thinking to make judgments and act in the light of those judgments.²

Taba challenges educators claiming that various factors have prevented a program from developing "autonomous, creative, and productive thinkers."³ These factors are: what is meant by teaching; definitions of thinking; questionable assumptions, such as, factual information must be accumulated before reflective thought can take place and, that thought can take place only as

¹Ibid., p.171-172

²Mary Lou Usery, "Critical Thinking Through Children's Literature," Elementary English 43 (February, 1966): 116

³Hilda Taba, "The Teaching of Thinking," Elementary English 42 (May, 1965): 534

a by-product of studying certain subjects. A study on the development of thought conducted in elementary classes, in which both the curriculum and the teaching strategies were geared to this goal. The teachers were trained to help children master three cognitive tasks: first, concept formation consisting of operations, differentiating characteristics of objects and events, grouping on the basis of a similar property, and categorizing and labeling. Second, analyze data to develop principles and generalizations through subprocesses; identification of specific points; explaining the how/why of a specific item or event, hence establishing relationships; and lastly, inference. Third, applying principles by predicting and hypothesizing. In this study they viewed the learning of thinking as an active transaction between the individual and his environment; the simpler operation preceded the more complex and abstract; and the recognition of the processes of assimilation and accommodation as introduced by Piaget. It was recognized that timing and pacing are important factors for these cognitive tasks and not to be instantly learned.

Bruner stresses both the rationality and the complexity that characterize the thought processes from the outset; he is concerned with the means whereby people actively select, retain, and transform information. Categories, according to Bruner, are elementary forms of cognition through which man adjusts to his environment. Once man has a better grasp of the nature of categorizing, it is understood then that judgment, memory, problem-solving, inventive thinking, esthetics, perception and concept

formation involve these operations. However, it must be kept in mind that the categories in terms of which man sorts out and responds to the world around him reflect deeply the culture into which he is born. The language, the way of life, the religion and science of a people are filtered through the categorical systems, which, he, man, has learned.

Bruner has found that there are three kinds of representational systems that are operative during the growth of human intellect and whose interaction is central to growth. All of them are amenable to specification in fairly precise terms; all can be shown to be affected and shaped by linkage with tool or instrumental systems; all of them are within important limits affected by cultural conditioning and by man's evolution. They are: enactive representation, iconic representation and symbolic representation -- knowing something through doing it, through a picture or image of it, and through some such symbolic means as language. Growth involves not a series of stages, but rather a successive mastering of three forms of representation along with their partial translation into the others.

Bruner has referred to the growth of the mind as always being growth assisted from the outside. An advanced culture transcends the bounds of individual competence, for the limits of growth depend on how a culture assists the individual to use such intellectual potential as he may possess. A culture, in assisting the development of the powers of mind of its members provides amplification systems to which appropriately skilled human beings can link themselves. Three examples of amplifications are: first, amplifier of action -- hammers, levers, digging

sticks, wheels, all programs of actions into which implements can be substituted. Second, the amplifiers of the senses. Third, the amplifiers of the thought process -- ways of thinking that employ language and formation of explanation, and later, use such languages as mathematics and logic.

In his theoretical description of the processes involved in the different kinds of conceptual activity he has studied, several modes of acquiring knowledge can be viewed as a kind of problem whose solution is actively, though not necessarily consciously, constructed from sensation, to perception, to cognition. The first step is an inferential leap from sense data to a tentative hypothesis achieved by relating incoming information to an internally stored model of the world based on past experience. The second step is a confirmation check in which the tentative hypothesis is tested against further sense data. In the face of a match the hypothesis is maintained; in the face of a mismatch the hypothesis is altered in a way that acknowledges the discrepant evidence. The sense data might be called cues, clues, or experimental results; the hypothesis might be called category, a rule, a principle or a theory; the internal model might be called a generic coding system, a focus, a system of representation, a cognitive structure, a schema; the recursive process might be called inference and confirmation check or strategy; all showing the underlying similarity of diverse kinds of mental activities.

Bruner's theory of intellectual development is fundamentally psychological for he seems to be trying primarily to identify the psychological processes which occur during cogni-

tive development and the forces which impel it. Also, he strongly believes that a theory of development should go hand-in-hand with a theory of instruction. His view of man as an information processor, thinker, and creator emphasizes both the rationality and the dignity of which human beings are capable.

Black claims that there are many kinds of thinking but when a person is thinking about thinking, he is in reality reasoning, the capacity which in itself is an essential ingredient in intelligence. He has found that the connecting items in reasoning are: reasons, to prove, evidence and follow. Reasoning involves "the use of possible truths as evidence in support of other possible truths."¹

Russell closely relates problem-solving and creative thinking to critical thinking. Critical thinking, according to Russell, "is the process of examining both concrete and verbal materials in the light of related objective evidence, comparing the object or statement with some norm or standard, and concluding or acting upon the judgment then made."² Whether or not each child is doing critical thinking is dependent upon his informational background, his attitude of acceptance or suspended judgment, and in his skills or ability to relate certain standards or values to the object or issue involved. He feels that critical thinking needs to be taught not as a

¹Max Black, Critical Thinking: An Introduction to Logic and Scientific Method (New York: Prentice-Hall, Inc., 1946), p.4

²David H. Russell, Children's Thinking (Boston: Ginn and Co., 1956), p.285

separate group of tricks or devices but in all subject areas, that children do not learn this process by themselves nor is it related to general intelligence or school achievement. Schools, he feels, can develop critical thinking when the educators encourage children to question statements and evaluate work products; when there is a wide variety of pictures, children's books, newspapers and magazines.

Critical Reading

Critical reading, yet undefined, evolved from an increasing awareness of the importance of the reader's reacting to, or thinking about, ideas expressed in print. It means different things to different people.

Karlin believes that critical reading is but another form of critical thinking as reading serves a two-fold purpose, that of providing a source for ideas and to create reactions to ideas. Factors influencing critical reading are: attitude and ability; knowledge; and feelings and values. If a child has a positive attitude and the classroom atmosphere is favorable he will venture forward with an inquiring mind. The pupil's knowledge, that is, background and understanding, is a prime element in critical reading, so that he, the student, can weigh the views and statements of the written. Obstacles such as emotional overtones can affect the way a student receives others' beliefs and ideas.

Two concepts of critical reading were identified by D'Angelo: the evaluative and the factual evaluative concepts. In the evaluative concept he included "certain skills

which attempt to justify, evaluate, and criticize ideas"¹ incorporating herein the premise of not jumping to conclusions, searching for relevant material, appraising, evaluating, selecting, and incorporating critical thinking when evaluating. The factual evaluative concept includes the comparing of sources, identifying main ideas, knowledge of author's techniques, sensing moral values and the ability to detect propaganda.

Wardeberg formed some general factors common to the many interpretations of critical reading. First "is thinking about and evaluating that which one reads. Judging, discriminating, and questioning are inherent in the process."² Second is comprehension or understanding and interpretation. Here reference is made to recognizing the author's form, meaning poetry, comedy, tragedy, and the special use of language such as imagery, emotional connotations, symbolism, allusion, and irony. Also included is the appreciation of the extension of concepts; the reflecting upon and the incorporation of ideas. "Critical reading requires time; it requires a climate that allows one to explore, to state opinions tentatively; it requires supportive guidance and the opportunity to react honestly and with integrity."³

¹Edward D'Angelo, "Critical Thinking in Reading," Elementary English 48 (December, 1971): 947

²Helen L. Wardeberg, "Critical Reading," Elementary English 44 (April, 1967): 249

³Ibid., p.250

Some very practical applications of critical reading, especially as it pertains to history, were developed by Boyan. Included in her lists were:

understanding the organization of content; dealing impartially with controversial issues; discriminating between fact and opinion; recognizing classifications in current events magazines; applying checklists to help detect propaganda; dealing with many references about one topic; and appreciating the point of political cartoons and of political anecdotes.¹

Characteristics of the critical reader and the educator's role were identified by Dale. The first, he is the student who loves learning and reads without direction, is independent. Second, he can determine the key issues and recognize that they are complex -- there's no simple solution. Third, he is able to analyze and judge an author's work. Fourth, he searches for the truth. Fifth, he has imagination, a creative mind and a lack of stereotyped ideas. Sixth, he reads what is being written by the great minds of today and yesterday. Seventh, he becomes actively involved with the author as he's reading, asks questions and expects answers. Eighth, he is truly interested in words, figures of speech, and to metaphor. Ninth, "is disciplined reading by persons who have convictions about something."²

Sochor stressed that experiences, concepts, and

¹Catherine S. Boyan, "Critical Reading What Is It? Where Is It?" The Reading Teacher 25 (March, 1972): 518

²Edgar Dale, "The Critical Reader," in Critical Reading, ed. Martha L. King, Bernice D. Ellinger, and Willavene Wolf (Philadelphia: J.B. Lippincott Co., 1967), p.29

language abilities must be developed so that the readers can draw upon these when interpreting the author's words. In comparing literal reading to critical reading she found that they are not synonymous but

cannot be differentiated either on the basis of thinking processes or the language-experience relationships. Both will vary with the materials and the reader. Attempting to combine the two in some pattern of differentiation does not appear possible at the present time. The differentiation can be made on the basis of the reader's purpose for reading, i.e., his need to understand what is stated (literal reading) as contrasted with his need to deal with the facts in some way (critical reading).¹

Piekarz pointed out the importance of attitudes, especially negative ones, on critical reading and stressed that this could be as important a variable as intelligence. The results of her doctoral study showed the effects of parental attitude: a negative attitude prevented "objective and rational understanding at the interpretation and evaluation levels,"² whereas the opposite results were obtained with children who had positive attitudes toward their parents, for they interpreted the author's meaning accurately. Memory also is affected by attitudes as readers tend to remember material that agrees with their opinion and reject or forget those which do not. Techniques people use to preserve their strong

¹Elona E. Sochor, "The Nature of Critical Reading," in Critical Reading, ed. Martha L. King, Bernice D. Ellinger, and Willavene Wolf (Philadelphia: J.B. Lippincott Co., 1967), pp. 56-57.

²Josephine A. Piekarz, "Attitudes and Critical Reading," in Critical Reading, ed. Martha L. King, Bernice D. Ellinger, and Willavene Wolf (Philadelphia: J.B. Lippincott Co., 1967),

attitudes are: withdrawing from contradictory materials; selecting only material which will substantiate their opinions and ignoring conflicting facts; and misinterpreting as a form or rationalization. Lastly, emotional conflict interferes with critical reading as it uses the mental energy needed for thinking and learning.

Recognizing propaganda and checking on facts for the sake of validity are but minor parts of critical reading according to Dinnan. We must incorporate critical analysis which is "the program needed to digest, manipulate, consolidate, and evaluate data in terms of the world about them."¹

Reading comprehension should be re-examined in light of the evidence obtained by social psychologists as it is a much more complicated process than heretofore indicated, according to Eller and Wolf. It is well to remember that,

relationships between the reader's personality, the portion of society in which he functions, and various aspects of the communicative act have considerable bearing upon the whole comprehension process.²

It has been found that attitude change is more effective through television and radio than in reading matter. Therefore, we should reexamine the conventional academic skills approach to the development of critical reading ability and

¹James A. Kinnan, "Critical Analysis Versus Critical Reading," in Reading: Process and Pedagogy, vol. 1, ed. George B. Schick and Merrill M. May (Milwaukee: The National Reading Conference, Inc., 1971), p.107.

²William Eller and Judith Wolf, "Factors in Critical Reading," in The Philosophical and Sociological Bases of Reading in Fourteenth Yearbook of the National Reading Conference, ed. Eric Thurston and Lawrence Hafner (Milwaukee: The National Reading Conference, Inc., 1965), p.65.

instead use approaches found effective in general communications which influence, persuade, and help in comprehension skills. Perhaps students would then understand why they tend to be uncritical.

To be a critical reader one must be totally involved, which in itself could be a reason for the apathy of today's children, according to Quaintance. Conformity disturbs few people, whereas those with critical minds tend to annoy.

The critical reader knows that his present fund of information is reliable because he subjects it to constant evaluation. He also knows the relative value of each item in his hierarchy of values. He is aware of which concepts are the fixed stars and constellations that guide his life, which concepts are dependent satellites, and which are but meteors of brief intensity.¹

Accordingly, characteristics of a critical reader include: an unbiased attitude until he has reached a conclusion based on experience and knowledge, acceptance that some of his opinions and answers are incorrect, total involvement.

In some instances this involves nothing more than going along with the thought of the majority; at other times it may cost him his life and reputation if reading leads him to a personal commitment to action.²

Teaching Critical Reading

Most writers concur that critical thinking and

¹William J. Quaintance, "Critical Reading - As If There's Any Other Kind," Developing Comprehension Including Critical Reading, compiled by Mildred A. Dawson (Newark, Delaware: International Reading Association, 1968), p.171.

²Ibid., p.173.

critical reading are greatly facilitated by intellectual maturity. However, the simpler levels of critical reading can be learned by people of below average intelligence. Time and effort must be spent on instruction for this purpose throughout the school years in order to achieve continued development.

In order to teach critical reading, certain conditions must be present, according to Robinson. The required conditions are: the school must be committed to such instruction in all reading; the teachers need to use varied material, not a single text so that the students are exposed to differing viewpoints; the teacher's attitude must be open and she must have an inquiring mind and be able to read critically; the educators need to set standards for questioning so that the students develop this ability to formulate questions before reading any material; and finally, the educators must go at a speed at which students can absorb and discuss the material.

There are three general approaches to teaching reading according to Huelsman. They are: the direct approach, the incidental approach and the functional approach. The direct approach is one in which the attitudes, skills and abilities of critical reading are taught in a systematic fashion. The incidental approach is exemplified when critical reading is a by-product, as when a student reads many references on a given topic. The functional approach is one in which it is necessary to evaluate primary source material.

In teaching reading groups, a teacher should ask questions which would give students "an opportunity to compare and evaluate their own thinking with that of others and so gain knowledge of what works and what does not"¹ according to Henderson. In order to direct critical inquiry and reflection, teachers should ask of students two questions, "What do you think?" and "Why?"²

The teacher must become more sensitive to experiences and the role they play in a student's understanding of concepts and words:symbols according to Smith. This need can be met visually through pictures of unknown objects such as a stylus and through explanation and discussion. When leading discussions it is also important to ask stimulating questions leading to cause-and-effect reasoning; making inferences and comparing and arriving at conclusions. Suggestions for upper grade students were:

Have the children bring in newspapers from different publishers, compare reports of writers on the same event and note variations. Have them pass judgment on the reputation of the newspaper for 'uncolored reports' or the reputation of the news writer for presenting accurate facts. Have them pick out statements that are opinions and statements that are facts. Ask them to bring in articles from the various columnists and discuss each one in terms of personal

¹Edmund H. Henderson, "How to Direct Critical Inquiry and Reflection," Dimensions of Critical Reading, compiled by Russell G. Szauffer (Newark, Delaware: Reading-Study Center, University of Delaware, 1964), pp.43-44.

²Ibid., p.44

opinion versus facts, bias, radical ideas and attempts at sensationalism.¹

Jenkinson advocates that an inquiring mind should be encouraged with beginning reading. Children in primary grades should have informative material read to them by teachers so they aren't limited by their own reading skill. The teacher should check constantly on understanding and accuracy with provocative questions. Pupils learn best when solving their own problems, so their questions should be fostered.

In promoting critical analysis, Durr emphasized using a variety of sources versus one text and a classroom atmosphere which encourages exploration and freedom in making decisions. The teacher should help children recognize fact versus opinion and teach recognition of assumptions versus supported statements.

Howards believes "one cannot teach the critical reading skills such as drawing inferences, making generalizations, detecting propoganda, interpreting imagery and symbolism without having applied the interdependent structural skills"² such as previewing, finding main ideas, details, outlining, summarizing, use of guide words, skimming and scanning. Emphasis was also placed on classroom atmosphere. "Humor, wit and satire and

¹Nila Banton Smith, "The Good Reader Thinks Critically," Developing Comprehension Including Critical Reading, compiled by Mildred A. Dawson (Newark, Delaware: International Reading Association, 1968), p.12.

²Melvin Howards, "Ways and Means of Improving Critical Reading Skills," Developing Comprehension Including Critical Reading, compiled by Mildred A. Dawson (Newark, Delaware: International Reading Association, 1968), p.193.

even sarcasm used correctly can help build a sensitivity in students for watching the irony, the incongruous."¹ Using magazines such as MAD was encouraged because of its satire on advertising. Howards also suggests having the students write their own advertisements using propaganda techniques. Analyzing various newspapers during election campaigns, determining amount of space devoted to each candidate, and finding biases to determine how they were influencing voters, can be an excellent critical reading research project.

Responsibilities which the teacher must assume, according to DeBoer, are: to aide the reader in identifying his own assumptions or clarify his thinking; to help in analyzing the assumptions and the issues being read; and to enrich or broaden the reader's background.

Using the senses, smell, taste, touch, sight, and hearing in teaching new vocabulary words, especially in the field of science, will enrich a student's experience and his understanding, according to Triggs. Every child must be challenged to read and think according to his level of understanding with the ability to shift automatically or unconsciously his skills from recalling, to sorting, to checking and seeking understandings, which the author referred to as a "three-way process."²

¹Ibid., p.194.

²Francis Oralind Triggs, "Promoting Growth in Critical Reading," Critical Reading, ed. Martha L. King, Bernice D. Ellinger, and Willavene Wolf (Philadelphia: J.B. Lippincott Co., 1967), p.67.

Some suggested activities for classroom teachers in teaching critical reading were offered by Kottmeyer. One was to follow an item which would be given lineage on an editorial page for several weeks or months and cut these out, put each in a folder with a list of questions on the opposite page. Another was to use political and social cartoons in like fashion but limit these to those which are "provocative of logical reasoning and analysis."¹

Six necessary skills for critical reading according to Spache are: "investigating sources; recognizing author's purpose; distinguishing opinion and fact; making inferences; forming judgments; and detecting propaganda devices."² Hill claims that recreational reading can be used to teach these skills. Suggestions included the comparing of biographies by determining what is true and what is legendary; reading books of family life thereby comparing their ideas, standards of living, and similar characteristics; perusing books about boys and girls to compare character traits, strengths and weaknesses; poetry, not to analyze it but that

it should be presented for the beauty of the thought it brings, the release of emotion through verse. It can be used, without hindering any of these, to discuss and appraise the thought presented and its effect upon the reader.³

¹William Kottmeyer, "Classroom Activities in Critical Reading," Critical Reading, ed. Martha L. King, Bernice D. Ellinger, and Willavene Wolf (Philadelphia: J.B. Lippincott Co., 1967), p.174.

²Jeraldine Hill, "Teaching Critical Reading In the Middle Grades," Critical Reading, ed. Martha L. King, Bernice D. Ellinger, and Willavene Wolf (Philadelphia: J.B. Lippincott Co., 1967), p.326.

³Ibid., p.330.

In order to develop critical reading skills, teachers must learn the art of questioning, according to Raciti. One objective of a reading class is to make students active participants. This can be done through questions such as "How? Why? In what way? and For what reasons?"¹ The questions stimulate critical thinking. Those which will help develop an inquiring mind are "To what extent? Under what circumstances?"² When teachers use questions such as "What is? or What would you have done in a similar situation?"³ they will stimulate the student's imagination.

Teachers must be aware of problems that can be created by teaching critical reading.

The first is the influence of the teachers, parents, and other adults on the thinking of pupils. Opinions have previously been formed. Acceptance of a climate of inquiry and critical evaluation requires a mature outlook on life and attitudes change slowly. The second problem arises when the school, through the teaching of critical reading, introduces and encourages ideas and attitudes that conflict with those taught in the home. A child who questions, who evaluates answers, and who formulates opinions is a disrupting influence in autocratic homes and also in many classrooms.⁴

A broad background was stressed as being essential for critical

¹Domenica Raciti, "Critical Reading Techniques in Elementary School," Reading and Realism, ed. J. Allen Figurel (Newark, Delaware: International Reading Association, 1969), p.99.

²Ibid.

³Ibid.

⁴Edith C. Janes, "Developing Critical Reading Skills in Literature," Reading and Realism, ed. J. Allen Figurel (Newark, Delaware: International Reading Association, 1969), p.241.

thinking, but it was recognized that some students have difficulty in the application of material to new situations. Students should be taught to withhold judgment until they've gathered enough evidence. Use of the newspaper especially in the area of advertisements, and in judging fact versus opinion, was suggested. Wide reading on a variety of stimulating subjects will provide opportunity to compare information and to evaluate new ideas.

Devine maintains that critical reading abilities can best be taught in a language arts class. These are:

1. The ability to distinguish between relevant and irrelevant information.
2. The ability to judge the reliability of a source.
3. The ability to distinguish between statements of fact and statements of opinion.
4. The ability to judge the suitability of material for a particular purpose.
5. The ability to recognize the bias of a writer.
6. The ability to distinguish between evaluative and report language.
7. The ability to recognize the inference that a writer has made.
8. The ability to recognize the assumptions implied by a statement.
9. The ability to determine the recency of a printed statement.
10. The ability to recognize the competency of a writer to write about a given subject.¹

Teachers who have achieved success in developing critical thinkers and readers have certain common characteristics. Included are:

- 1) take a positive view of their pupil's capabilities;
- 2) permit maximum interaction among pupils when it comes to discussing ideas that are important to the children or finding solutions to certain problems;

¹Thomas G. Devine, "Can We Teach Critical Thinking?" Elementary English 41 (February, 1964), p.155.

3) understand the skills necessary to reading comprehension and 4) know just when to intervene in guiding children to think.¹

Classroom atmosphere, meaning one that is free and relaxed was also stressed by Boyan, along with the art of questioning, especially the use of "why" and keeping the questions meaningful to the student. Boyan incorporated Gans' list of prerequisites for developing critical readers which were:

1. Having a thinking teacher who is also a critical reader.
2. Having a teacher who recognizes the importance of guided discussion and has the abilities to guide discussions in a way which develops mature comprehenders.
3. Having the right to think honestly, not being afraid of making mistakes, realizing adults make mistakes too.
4. Learning how to challenge and differ tactfully and skillfully -- encouraging independent thought.
5. Increasing the child's respect for himself -- he must feel he is listened to.
6. Learning self-control in discussion -- sharing and planning curricular activities in which there is discussion of reading references offers important opportunities for stimulating careful thinking.²

Suggestions for the classroom teacher to develop critical reading skills include: use of class debate of a subject geared in interest to the students one is teaching; use of television viewing to pick up propoganda techniques and words; and, use of broadcasts and written materials to search for color words to be used by the students in creating their own written material.

¹ Joanna Sullivan, "Receptive and Critical Reading Develops at all Levels," The Reading Teacher 27 (May, 1974), p.796.

² Catherine S. Boyan, "Critical Reading What is it? Where is it?" The Reading Teacher 25 (March, 1972), pp.519-520.

Groff conducted a study through which it was found that the reading comprehension of an individual child as he reads is influenced to a degree by his attitude toward the content type of material being read. This seems more likely to be true if he is asked to reason, or to read beyond the material, rather than if he is just asked to repeat verbatim.¹

Activities which would be helpful in teaching critical reading were suggested by Estes. One was to make a checklist of possible interpretations of material, including some that would not be appropriate; another was to

have students make lists of ideas which occur to them as they read. That is, as the reader encounters ideas in the selection which seem to him to relate to other situations or things he knows, he makes note of this. The purpose of the note-taking is to insure for the reader that he has followed through on his thinking. In effect, he is asked to reflect on information even as he assimilates it.²

Stimulating ideas were offered by Duquette. One was to reproduce tombstone markings and to follow through with questions which require critical thinking as well as critical reading. A second idea was to incorporate these skills in an art class by following the directions for an art project exactly as stated and then to follow through with a class discussion of the directions in order to evaluate them so that the students can rewrite them. A third idea was to use several newspaper articles about a specific story for a panel discussion, stressing

¹P.J. Groff, "Children's Attitudes Toward Reading and Their Critical Reading Abilities in Four-Content Type Areas," Journal of Educational Research 55 (April, 1962), p.314.

²Thomas H. Estes, "Teaching Effective Study Reading," Reading Improvement 8 (Spring, 1971), p.12.

both the pros and cons. His fourth and final idea was to incorporate a book such as Across Five Aprils¹ in the reading program, compare the historical happenings with information found in source material and, if possible, with microfilmed information.

Vocabulary development in a specific content area can be made more interesting through the use of morphemes according to Burmeister. It is suggested that the teacher use all the words with common morphemes and make a morpheme tree on the bulletin board. Examples of morpheme families were given for English, mathematics, science and social studies. One example, taken from social studies is the morpheme auto: autocracy, autograph, autobiography, autodidact, autohypnosis, automat, and autonomy.

Huus has summarized the relevant features in developing critical readers. That summary would have the educators aware of "the student's personal characteristics and background, his intelligence, maturity, social level, experience, attitudes, and values which will affect his ability to read critically."²

¹Irene Hunt, Across Five Aprils (Chicago: Follett Publishing Company, 1964).

²Helen Huus, "Critical Aspects of Comprehension," Elementary English 48 (May, 1971), p.492.

CHAPTER III
IMPLEMENTING THE STUDY SKILLS PROGRAM

"To train our taste is to increase our capacity for pleasure; it enables us to enter into such a variety of experience."

Lord David Cecil¹

Educators need to take advantage of the many opportunities which arise to promote critical thought or evaluation in the classroom. When they fully understand critical reading and believe in its importance they will seize these opportunities as they arise.

The purpose of this paper as mentioned in Chapter I is to develop methods or devise techniques which will benefit children experiencing difficulty in mastering the skills program. The author has included ideas which are applicable to the program.

Vocabulary development. Words can be introduced and repeated from audiovisual presentations and from books. Meanings then are acquired by association.

After the words have been introduced, have the students write them showing their meanings in context. Then, use the cloze procedure which requires them to fill in every fifth word which has been deleted from their definitions or stories.

¹Lord David Cecil quoted in Helen L. Wardeberg, "Critical Reading," Elementary English 44 (April, 1967), p.248.

Develop a magic square vocabulary game.¹ The words are in the first column, definitions in the second. The student puts the number of the definition in the square which correlates with the letter of the word. If the answers are correct he will have formed a magic square in which the total of numbers across will equal the total of the numbers both down and diagonally.

For example:

- | | |
|-------------------|--|
| A. latitude | 1. a book of maps |
| B. longitude | 2. area drained by a river and its branches |
| C. legend | 3. distance east or west of the prime meridian |
| D. growing season | 4. distance measured in degrees north and south of the equator |
| E. precipitation | 5. rain, snow, sleet |
| F. atlas | 6. in the direction of the current |
| G. basin | 7. a smaller map set within the border of a larger one |
| H. inset map | 8. a key accompanying a map |
| I. downstream | 9. time to raise or cultivate a crop |

A	B	C
D	E	F
G	H	I

The magic number here is 15

¹Richard T. Vacca, "Reading Reinforcement Through Magic Squares," Journal of Reading 18 (May, 1975), pp. 587-590.

Use Edward Fry's "Graph for Estimating Readability"¹ to have students check and analyze their own papers and to determine the readability levels.²

Find books dealing with word etymologies to generate interest in the content area language and vocabulary. Follow through by listing synonyms and antonyms through the use of a thesaurus.

Try to dramatize or play charades with a list of the vocabulary words.

Use word puzzles wherein you define the word and provide the number of spaces needed. Example: distance above sea level: e l e v a t i o n .

Have each student develop one word association, combine them and distribute as a class activity. Example:

mountains: rough lands -- plateaus: _____
flat lands, dry lands, rough lands

Graphs and tables. Many students view graphic aids as a filler and welcome them on a textbook page, for they mean fewer words which have to be read. They don't see these aids as means by which authors clarify their position. Knowledge of the graphic study skills can be of immeasurable help in getting perspective on a written passage.

¹Edward Fry, "A Readability Formula That Saves Time," Journal of Reading 11 (April, 1968), pp.513-516.

²James W. Shepherd and Frances E. Dickerson, "The Fry Graph Wakes Up Student Writers" Journal of Reading 20 (January, 1977), pp. 292-294.

Initially, help the students learn to collect data from physical experiments and to make a graph of that data. An example, each child may make a graph to show the heights of class members or take a survey of their classmates' favorite foods, movies, or sports.

Use the World Almanac in small groups to interpret information on population, number of bicycle accidents, or any category that interests the group.

Each student chooses five or six stocks and keeps a record of the stock in table form.

Map skills. Assign each student the responsibility of making a game. Have each pupil bring in a road map, write and answer questions about it. The questions must involve all aspects of map reading from mileage scales to identifying interstate highways to being able to determine populations of the cities. Each student marks a route on the map from one city to another indicating the starting point and finishing point with cities along the way being the stopping points. Players move from city to city by correctly answering the questions which had been written on cards with answers on the back.

Have each student find the latitude and longitude of his birthplace and where he would like to live or visit. Then working in small groups according to the number of globes or maps you have available, have each student try to determine the name of the city which has either been written on a card or called out by a group leader.

Track hurricanes, tornadoes, or snowstorms using newspaper or radio weather reports by using the latitude and longitude of the storm.

In learning to use the legends on maps assign each small group of students a letter of the alphabet. In a given period of time they will list names of the physical and political features that begin with that letter. Example: a list for the letter A could include Africa, Asia, Amazon River, Atlas Mountains, and the Atlantic Ocean.

Select various headlines of newspaper or magazine articles and have the students locate these places in the news according to their latitude and longitude.

Location skills. Divide the class into small groupings, give them a list of reference books and questions; let the group try to determine which would be the best references. Then give the answers, let them defend their answers.

When the Readers' Guide is being introduced, have enough copies for each group, also, many magazines. After they have determined the usefulness of this reference tool, it is challenging to reverse this procedure. For example: use a magazine like the National Geographic, choose an article and challenge the class to locate it in the Readers' Guide under both the subject and author entry.

With many different reference books at hand, divide the children into small groups, have each group work on a category (artists, authors, beverages, actors, actresses, land

animals, sea animals, birds, spices, pioneers, sports heroes and the like) and in a limited amount of time see which group can find the most items.

Have each child pick a topic about American history and search the card catalogue to see what our library has on this topic. List their names, authors, and location number.

Ask each child to find a book to read. Then locate the author's name in the card catalogue and list other books by the same author.

Have each child name an author s/he have particularly enjoyed. Try to find some information about this person using the reference library.

Play library search. List the card numbers of ten books available in the library. Have small groups of children locate these books writing the title, author and copyright date.

Give them a card catalogue challenge. Write one of the three main items found on a card: the subject, author or title and have the students fill in the missing items.

Send small groups to the reference section of the library challenging them to locate the various sets of encyclopedias. Have them fill in the title, number of volumes, copyright date and publisher.

Summary

The author has incorporated the philosophy of many of the leading researchers of critical thinking and critical reading to make this material applicable to the classroom

teacher of the study skills. It is hoped that teachers will find this material of value but won't stop here for the ingenuity of the teacher is the crucial point. Teaching for thinking is as fully an individual matter as is thinking itself.

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