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ALTERING HABIT-BOUND THINKING THROUGH A CRITICAL THINKING SKILLS APPROACH TO CHILDREN'S LITERATURE

ROBERTA COHEN

ALTERING HABIT-BOUND THINKING THROUGH A CRITICAL THINKING SKILLS APPROACH TO CHILDREN'S LITERATURE

A THESIS PRESENTED BY

ROBERTA COHEN

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CRITICAL AND CREATIVE THINKING GRADUATE PROGRAM

Signature Page

a Thesis by

ROBERTA COHEN

Approved as to style and content by:

[redacted]

Beebe Nelson, Philosophy Dept.

[redacted]

Jane Martin, Philosophy Dept.

[redacted]

Irvin Stock, English Dept.

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CHAPTER I

INTRODUCTION

As an educator, I have encountered many students who appear incapable of critically evaluating material. The result is that they are unable to think issues through and arrive at a logical conclusion. I feel students don't have the necessary critical thinking skills (as the dictionary defines them) "to determine, resolve, work out, etc. by reasoning; to use the mind for arriving at conclusions, making decisions; drawing inferences."[1] The lack of critical thinking skills is evident early in the year, and as I teach the lessons contained in the curriculum, I realize that many children's skills are not likely to improve. I question whether the previous teacher has prepared the students and know that the following September the teacher who receives these students will ask the same question.

In trying to address this problem which I have encountered in the classroom, I am caught in the dilemma of whether to meet the needs of my students as I see them or to teach the curriculum as prescribed by the administration. My practice, and the practice of most teachers, has been to emphasize the latter.

The administration requires the teachers to teach the curriculum and judges the teacher's success or failure on the basis of the results of standardized tests. Many teachers, caught in the bind of trying to produce measurable results in their students and failing, resolve their dilemma by teaching the curriculum as the administration requires and then pass the students' failure to learn onto the curriculum. This response is understandable, but it does not result in improving one's own teaching.

In my opinion, the time for a change had come. Perhaps it was time for me to break the habit of trying to please the administration and to establish the habit of meeting my students' needs more adequately than I had before. By using new approaches to old material, maybe I could introduce a more critical thinking style in myself and in my students. Once the new thinking style is introduced, my students and I might be able to attack the curriculum with more vigor and enthusiasm and perhaps achieve a better understanding of it, rather than a mere knowledge of the facts contained within it. There might even be a carryover in dealing with issues in a person's life; handling things well in the "real world" is the true measure of a person's education.

CHAPTER II

RATIONALE AND STATEMENT OF THE PROBLEM

I needed to re-examine the vast amount of literature that addressed the question of how to help children develop the power to think more clearly and choose the appropriate techniques for teaching critical thinking skills to my students. Monroe Beardsley defined good critical thinking as "that [which] conforms to the general principles of logic."[2] Robert H. Ennis originally limited his definition of critical thinking to "the correct assessing of statements."[3] He later found that he had to expand his definition to include "observing, inferring, conceiving alternatives, and offering a well organized line of reasoning."[4]

Critical thinking applies to all areas of a person's life. "The need for students to learn critical thinking and reasoning is rooted in the very nature of the educational process; that is, in the need of a learner to consider clearly and to assess critically all that she or he encounters in the process of learning."[5] The above statement addresses my reason for teaching critical thinking to my students. If students learned critical thinking skills, they would be better prepared to deal with their school work and to deal

with issues in their personal lives. However, as a teacher, I was fully aware of Sarason's statement that "principals and other administrators still judged the worth of teachers by how much material was covered in a fixed period of time."[6] The pressure to cover the material is constantly there and often times "teachers successfully complete a forty-minute lesson--only to have lost the children somewhere around the ten-minute mark--and 'lost' could mean lost in a behavioral chaos or a fog of confusion."[7]

I knew that the pressure to cover the material in the curriculum was not going to be altered in the immediate future. I had already dispelled the myth that I could reach the goals of the curriculum with each student. I wanted to find a way to help each student gain more from whatever learning experience he or she encountered. I did not want to fall victim to what Sarason cautioned against: "proposals for change either do not get a hearing or never reach the stage of implementation."[8] My intent was to find a method, an approach, or a way to zero in on the critical thinking skills students need to succeed in school and to start to systematically develop them.

Dewey has stated that "mankind likes to think in terms of extreme opposites. It is given to formulating its beliefs in terms of Either-Ors, between which it recognizes no intermediate possibilities."[9] Periodically, educators examine their method of teaching and evaluate

the effectiveness of this method. If the method has shortcomings, it is usually replaced by another method. The more sensible approach would be to correct the shortcomings and incorporate some new methods. It was my intention to teach the critical thinking skills through a subject that already existed in the curriculum and thus incorporate the new with the old.

It was important for me, as it was for Dewey, that the skills learned be transferable to other areas of the curriculum as well as to the students' life outside school. For Dewey, the criteria of "interaction" and "continuity" were used to judge the value of a student's educational experiences. This meant that to have educational value for the student, the experience should draw upon past experience, lead the student to new experiences, and integrate the individual with his world.

> (The student) does not find himself living in another world but in a different part or aspect of one and the same world. What he has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow. The process goes on as long as life and learning continue.[10]

The two criteria discussed constitute what Dewey refers to as the "continuum of experience". In designing my intervention, I wanted to avoid teaching subject matter in isolation. As Dewey points out, "It is a mistake to suppose that the acquisition of skills in reading and figuring will automatically constitute preparation for

their right and effective use under conditions very unlike those in which they were acquired."[11] I planned to teach critical thinking skills that would help my students in their school work as well as in their life outside of school. In so doing, I would be contributing to the continuum of experience in their lives.

What I had noticed in my students were habits of thinking that prevented them from experiencing the continuity and interaction of their education with other aspects of their life or even of their school work. Students would appear to understand a lesson completely, but when trying to build a new lesson on an old one, I would have to reteach the old lesson. Students failed to draw the connection between two lessons even in the same subject area. When questioned about a reading assignment, the students would search for a sentence in the story that had the same words as the question and hope that it was the correct response. During a social studies lesson, if the students were asked to give the age at which an historical person died, given the birth and death dates, they failed to realize that they just had to subtract. Subtraction, for them, was a process which belonged in the math lesson and was not carried over into other subject areas. This is related to a style of thinking referred to by Duncker (1945) as "functional fixedness". By this he means "a form of mental set which reduces the tendency to use a given object in a

necessary way as a result of some prior function which that object has served."[12] What I saw in my students was that they learned a set of segregated facts and had a hard time applying them to contexts other than those in which they were originally learned.

What was needed was a way to help students start to see the connection between the facts they stored separately in their brains. A new way of examining information was needed to help them break patterns of thinking that inhibited the integration of their learning experiences. Matthew Lipman's work with philosophy for children seemed to incorporate skills that could be used to break the students' pattern of habit-bound thinking. Techniques such as "discovering alternatives", "discovering consistencies and inconsistencies" (syllogisms), and "discussions" were used to help children get away from "the concrete perceptions and verbal expressions that surround them...and to get up and over the content and facts and begin the <u>process of thinking</u>."[13]

I felt that emphasizing content and facts in the curriculum rather than a "process of thinking" had produced the habit-bound thinking style my students exhibited. They needed to develop processes that would enable them to critically evaluate their already existing patterns of response to facts and situations and alter them.

A new approach to teach the present curriculum

was needed. To help the students I would have to introduce new techniques into the already existing curriculum and thus correct a situation Sarason sees as existing in the schools today. He points out:

> From the administrator's standpoint the curriculum is only a guide, and the trouble arises because teachers are not 'creative'; that is, the problem is not the curriculum but the teacher. As many administrative personnel have said, 'We tell them to be creative but they still stick slavishly to the curriculum as if it were a bible.' To which teachers reply, 'What they want to know at the end of the year, and what I will be judged by, are the achievement tests scores of my children.'
>
> Although both sides correctly perceive each others' behavioral regularity, the administrator feels unable to change the state of affairs--that is, he is of no help to the teacher--and the teacher continues to feel unfree to depart from the curriculum. In short, we are back to a familiar situation in which no one sees the universe of alternatives to current practices.[14]

The alternative here was to use some well chosen techniques to provide the students with a process of critical thinking that would begin to break their pattern of habit-bound thinking. My task was to create a design that would address this immediate need. To stay within the current curriculum, the intervention was planned to take place within the already scheduled reading period. Conceiving (discovering) alternatives, a quality of Ennis' broader definition of critical thinking and a technique used by Lipman, was the skill I felt would directly contribute to the elimination of habit-bound thinking. In addition to this, detecting consistencies and inconsistencies would also be used as part of the intervention.

The question was now how to use these techniques in the classroom. Discussions had always been a comfortable format for my teaching style and better suited to my students' needs. Although not very fluent, the students felt more comfortable responding orally to a question than to writing an answer. But our discussions were not formal enough to accommodate the kind of teaching I proposed and therefore I needed a working definition.

During the summer of 1976 I had studied under Dr. Clyde Evans and at that time had viewed videotapes of his work in Hastings-on-Hudson, New York. He presented students with a filmstrip that introduced a moral dilemma but stopped short of solving it. He then led the children in a discussion which he labeled "philosophical" because it had three characteristics: "philosophical commitments, philosophical skills and (substantive) philosophical issues."[15]

The qualities listed under "philosophical commitments" were ones that I incorporated into the discussions that were carried on during my project. As Dr. Evans said:

> Whenever people seriously seek to resolve a dilemma, or to think their way through a problem, there are certain procedural principles to which they must be committed. I think this is always true, but it is especially true when it is a social enterprise, when several people are involved. Then, things must be done in a certain way, certain criteria must be established and observed and certain attitudes must be adopted toward the endeavor itself. These are, in short, the commitments necessary to make a philosophical discussion go.[16]

I would be committed to the principles of a philosophical discussion and demand that same commitment from

my students. These commitments as listed by Dr. Evans are:

1) impartiality and objectivity
2) consider only relevant criteria
3) be consistent
4) be comprehensive in thinking
5) respect each person in the discussion as a possible source of valuable information
6) search for reasons, defensible reasons, as the basis upon which to make decisions and determine behavior[17]

My main hypothesis was that the use of such teaching strategies as "discovering alternatives", "discovering inconsistencies and consistencies" through the use of the "discussion format" would begin to develop the process of critical thinking in my students and enable them to break their pattern of habit-bound thinking. A secondary hypothesis was that as a direct result of the discussion format, the students would develop a process of critical thinking that would carry over into other areas of the curriculum as well as their personal lives.

Although it is not feasible to assume that an education can provide the student with all the knowledge he or she will ever need for every new situation he or she will encounter, it is feasible to attempt to contribute to the development of critical thinking skills that will enhance his or her educative process. "Give a man a fish and he eats well for a day; teach him how to fish and he eats well for a lifetime." Critically analyzing a lesson for a student helps him understand the lesson today, but

teaching critical thinking skills to the student will enable him or her to critically evaluate lessons that arise in the future. The process of thinking critically would help the students break their pattern of habit-bound thinking. The above-mentioned techniques were used to design a project that would help the students to become more critical thinkers.

CHAPTER III

REVIEW OF MATTHEW LIPMAN'S PROJECT

Matthew Lipman's work reflects these concerns that I have and provides a possible way of improving critical thinking skills in the classroom. Matthew Lipman established and is now director of the Institute for the Advancement of Philosophy for Children (IAPC). He has stated that "the fact that Johnny adds, subtracts, multiplies, divides, and can race through a Danny Dunn book doesn't mean he can reason. It doesn't mean he is developing habits of efficient thinking or of arriving at independent judgments."[18]

Before acquainting the reader with Lipman's Pilot Project and its influence on my study it is appropriate to let Lipman explain his reasons for his study:

> Sometime in 1968 it occurred to me that we might do a better job of teaching children to reason than we were already doing. I had very little knowledge of the sort of research that had already been done in this area, and the whole conception of what was involved in 'teaching reasoning' was quite unclear to me. Was teaching children to recognize and perform certain inferential patterns teaching reasoning? Could reasoning actually be taught at all--or could we at best merely sensitize children to distinguish certain forms of inference as awkward or sloppy, much as we sensitize them to recognize 'bad grammer' without actually teaching them grammer?[19]

What Lipman was asking suggested to me that he already had some answers to his questions. What he needed

was a way of testing his ideas to see which could be validated and then shared with other educators. Lipman developed a Pilot Project Plan to test his ideas and a Pilot Project Grant was approved by the National Endowment for the Humanities in 1969.

The aim of his Project was to test the feasibility of teaching reasoning to fifth-grade students. The Project was carried out in the Rand School, Montclair, New Jersey during the 1970-71 academic year. The population of the school closely matched that of my students, which increased my sense of the possibility of applying Lipman's ideas. The school was located in an area largely populated by low- and lower-middle-income black families but had recently been paired with another school whose students were mostly middle-income whites. My school's student population was black, but due to desegregation, the student population now also included lower- to middle-income whites.

In Lipman's study two groups of twenty students were randomly chosen. The experimental group was taught by Lipman and two student aides. The control group received instruction in the form of social studies games from a professor from New York University. He left after six weeks, and then the control group received formal instruction in social studies from their regular teacher. The pilot group met for two forty-minute periods per week for a total of nine weeks. The class was referred to as

"Doctor Lipman's Class" and the students were told no grades would be given. Neither Lipman nor his two student aides had had prior experience in teaching a fifth grade class. Lipman's comment on this was "No doubt the students found us a bit odd."[20]

To use as a text for his teaching, Lipman wrote a children's book, Harry Stottlemeier's Discovery, which is, he said, "a story telling, almost as a child would relate it, of the discovery by a group of children of how their own thought processes work, and how more effective thought processes could be distinguished from less effective ones."[21] To accompany this book Lipman wrote a teacher's manual. This manual proved very useful in my project because it provided some actual exercises to be used in the classroom as well as helpful suggestions for discussions.

Lipman began by reading aloud to the students from Harry. He found the students preferred to read for themselves and he was surprised at their patience with the slow readers who fumbled through the text. The students surprised Lipman in many other ways. For instance, when he asked the initial question to start off the discussion, "the very first answer was lucid and absolutely complete."[22] He discovered also that "some of them [the students] had difficulty writing out the rule but they have no problem applying it."[23]

During the nine-week period, three quizzes in

reasoning were administered to the pilot group. In addition, four specific parts of the California Test of Mental Maturity were given to both groups at the onset of the project to test the students' knowledge of logic and logical reasoning. These same four specific tests were again given at the end of the nine weeks. After the results were analyzed:

> the pilot study group showed significant gains over the control group in the area of logic and logical reasoning ($p < .01$). The computed mental ages (as related to logic and logical reasoning ability of the pilot study group and the control group) were 167 months (13 years 11 months) and 140 months (11 years 8 months) respectively. The control group showed no significant advance over their initial test scores.[24]

There was an overall gain of 27 months in mental age seen in the pilot group at the end of nine weeks.

When Lipman sat down to analyze the results of the project, he could hardly believe that such an impact could be made in nine weeks. There had been no homework, no grades and no written assignments in class. Most of the time had been spent in reading from Lipman's book of Harry, in learning techniques of syllogistic reasoning and in informal discussion.

According to Jerry, one of the teaching aides, the high level of significance, .01, was accurate; however, he no longer had the data which meant that the findings could not be substantiated. The Pilot Project was then reported on by Milton L. Bierman, Director of

Public Services for the Montclair Public Schools. He postulated that the results of the Pilot Project would still be evident in the results of a test given to the pilot group two and one-half years later. Although it was not stated in the article, I have assumed that Bierman wished to use this as a reason for the continuation of philosophy as a subject of study for children in the Montclair School System.

What Bierman did was to use the results of the Iowa Test of Basic Skills (ITBS), a test used for all students in the system, in lieu of retesting the groups with the California Test of Mental Maturity, the original measure. Bierman made a determination that although this test was not as relevant a measure as the CTMM, he could use an ITBS sub-test given to the seventh grade students, who participated in the project in grade five. After careful analysis, Bierman drew the conclusion that the experiment conducted positively affected the reading scores of the students two and one-half years later.

Seeing that the students had maintained their gain over this period was very encouraging and further reason to employ Lipman's techniques in some way in my classroom. I decided to use the techniques of "discovering consistencies and inconsistencies" (syllogistic reasoning) and "discovering alternatives" as outlined in the Manual, together with the "discussion format" described by Lipman and the principles

of discussion as outlined by Dr. Evans to try to effect some positive change in my students' ability to think critically and thus break their pattern of habit-bound thinking.

CHAPTER IV

LITERATURE AND A PHILOSOPHY FOR CHILDREN PROGRAM

The background for teaching critical thinking skills to children had been provided by Lipman. Harry Stottlemeier's Discovery, as a text, was an excellent piece of writing and the teacher's manual to accompany it provided a wealth of material for use in the classroom. However, being newly introduced to this field of Philosophy for Children, I was overwhelmed by the scope of the material. There were parts I felt insecure about introducing to a class as I did not feel qualified to do them justice. The text, in my judgment, would have proved too difficult to be read aloud to my students. A copy for each student would be needed and because of the expense of ordering texts and the unavailability of the extra funds, that proved too costly.

Judgment and past experience in working with my class convinced me that six weeks would not provide sufficient time to adequately cover the text. The solution to the problem of what vehicle to use in place of Harry was in part resolved by an article by Gareth Matthews in which he related Arnold Lobel's story Cookies. Frog and Toad were eating cookies, decided they must stop, but could not

find the "will" to do so. No sooner had Frog suggested a solution than Toad came up with a reason why the solution would not work. Finally, in desperation, Frog went outside and gave the remaining cookies to the birds.

> "Now we have no more cookies to eat," says Toad sadly."
>
> "Not even one."
>
> "Yes," says Frog, "but we have lots and lots of will power."[25]

This story encourages us to think about will power in a new light because we ordinarily think of will power as operating in the context of temptation. Children can be invited to explore the relationship between concepts such as will power and temptation by discussing stores like this one. Arnold Lobel has assumed that the child's mind is capable of dealing with philosophical ideas on some level. Experience had shown me that children could do just that and that the opportunities to help them expand their thoughts had slipped by due to lack of awareness on my part. Lobel's "gentle and loving mockery of Frog and Toad invites us to reflect on the phenomenon of weakness of will and to join philosophers from Aristotle (see Book VII of his Nichomachean Ethics) to the present in trying to understand."[26]

Read in isolation, this story would be just one more that the child had enjoyed, but shared in a classroom it could be used to present intellectual matters of quality in a very attractive fashion. What the experienced teacher can do is "allow children to discover how delightfully and

how fruitfully thought can play on its subject-matter. We must help them see how reasoning about matters of importance to them can be satisfying to them. At times reasoning can be inspiring, even if it does no more than reformulate the basic issues more insightfully."[27]

After reading Matthews' short piece, I recalled having read another of his articles in which he addressed the issue of "philosophical whimsy" in children's literature. What had caught my attention was his discussion of Frank Tashlin's story, The Bear That Wasn't. That book had been one of my favorities as a child. Seeing this story through Matthews' eyes provided me with a new perception of what had been only a childhood book.

Matthews pointed out that contained within Tashlin's story were at least four philosophical themes: "1) dreaming and skepticism; 2) being and non-being; 3) appearance and reality; 4) the foundations of knowledge."[28] These themes were there to be used as the basis for philosophical discussions. However, the story was written for children and not as a philosophical treatise. The choice of how to use this story is left up to the reader. Other authors mentioned in the article included: L. Frank Baum, The Wonderful Wizard of Oz; James Thurber, Many Moons; Ivor Cutler, Mean One; Lewis Carroll's Alice in Wonderland and Through The Looking Glass and a poem by John Ciardi, "Someone Slow". This list is merely the tip of the iceberg.

For the experienced teacher it would present no problem to add several of his or her own titles to the above list. The difficulty arises in the narrowing down process, and in the analyzing of the story for the core around which lessons can be developed.

In the area of children's literature there are literally thousands of books already on the shelves, with perhaps a hundred or more being published each week. As a result of my reading about Lipman's work, I wanted to use some of his techniques in my classroom to develop better critical thinking skills in my students. Matthews' article provided me with the idea of using Lipman's techniques in conjunction with a piece of children's literature. Because there were so many books available to choose from, it was difficult to select the one story that would meet my requirements. The story would have to be short in length, of interest to my students, and provide provocative discussion topics.

In the past, I have provided my students with a bibliography for recommended outside reading. On that list I have always included some of the works of C.S. Lewis, Maurice Sendak, Saint Exupery, Scott O'Dell, Elizabeth Coatsworth, Frank Jacobs, and Isaac Bashevis Singer. Of these authors, I had favored Singer and therefore reviewed his books for possible use in my project. None seemed to measure up so I went to the library to do

some research. My librarian introduced me to a book of Singers that I had not previously read. After two readings of the book, I intuitively knew this story would meet my requirements.

The book, The Fools of Chelm, directly addressed the skill of generating alternatives as well as providing a wealth of philosophical themes. The sages in the story met frequently to resolve town problems. Each problem drew a different solution from each sage and from the secretary of the meetings. These solutions went from the acceptable to the ridiculous and many meetings closed with no problems resolved. These meetings could be used to generate discussions in the classroom and help the students to see alternative choosing in action. I could then use the examples in the story to help my students do some of their own alternative choosing by providing them with exercises modeled after those I had seen in Lipman's Manuel.

What follows is a report on the project and the steps that led to its plan, a review of the statistical data, a report on the formative data with actual transcripts from the taped discussions and some anecdotes taken from the daily journal I kept. It concludes with a brief discussion of implications for future study. Included in the appendix are a sampling of the different types of exercises used in the classroom in addition to alternative choosing.

CHAPTER V

PROJECT AND METHODOLOGY

PURPOSE OF THE PROJECT

The problem my students had was habit-bound thinking which interfered with their application of learned skills and knowledge to all areas of the curriculum. I determined that some of Lipman's techniques would help break this pattern by making the students more critical in their thinking. The purpose of my project was to use the techniques of "discovering alternatives" and "discovering consistencies and inconsistencies" (syllogisms) in conjunction with the "discussion format" in relation to a piece of literature, namely The Fools of Chelm and Their History. This would allow me to test my main hypothesis that the above techniques when applied to an already existing curriculum subject (in this case Reading) would begin to develop the process of critical thinking in the students and break their pattern of habit-bound thinking.

Once these techniques were already introduced during the project time and the students were using them, these techniques were incorporated into other lessons in the curriculum and to discussions that arose dealing with students' personal problems. This was done for the purpose of testing

the secondary hypothesis which was to see if there would be a carry-over into students' school work in general and also their handling of personal issues.

RESEARCH DESIGN

Statistical Design

The statistical design used was that of the Non Equivalent Control Group Design.[29] This was chosen because it accommodates the use of a naturally assembled group such as a classroom. I wanted to use my entire class as the experimental group for the following reasons:

1) There was no way of physically dividing the class so that one group (control) could be out of the room during the intervention.
2) The intervention would occur during the reading period and there was no other time during the day for an additional reading lesson.
3) I felt that if the intervention was successful, I wanted all students to benefit from it.

Formative Data Design

Because the project had both a main and secondary hypothesis, it was necessary to design a way to systematically record evidence to support the secondary hypothesis. The main hypothesis would or would not be supported by the statistical data. By the start of the project in January, the students had been in my class six hours a day, five days a week for over four months. As an experienced teacher of over thirteen years at the fifth grade level, I felt I would readily recognize observable differences in the students' overall patterns of behavior, solving problems in their work, and solving problems in their peer relations.

To record these changes, I kept a daily journal in which I noted any differences in class work, and contributions to lessons. Notes were also recorded of overheard conversations while children were at recess or doing independent and group study. In addition, I taped ten of the twelve lessons done during the project and then made written transcripts. The first lesson was not taped as I initially thought I could listen and then later write down what had transpired. This proved an impossible task. Another lesson was lost on tape due to a faulty tape which wasn't discovered till after the lesson ended. I saved all of the worksheets done by the students as well as home lesson assignments. These were compared to other work previously done by the students. A report on this formative data will be found in Chapter VII.

Subjects

Because there was only one fifth grade in my school, I used the fifth grade class at the neighboring school as my control group. I felt this was in keeping with the Non-Equivalent Control Group Design because:

1) both classes are in inner city schools
2) both classes are located in an area populated largely by low-income and lower-middle-income black families
3) both schools are racially integrated due to recent desegregation laws
4) both classes were the only fifth grade in each school and therefore would have a more heterogeneous population
5) both classes had basically the same sampling of

student reading levels as measured by the Individual Criterion Reference Test (ICRT) that had been given to the students at the start of the school year.

At the start of the project the experimental group had 11 male students and 13 female students; the control group had 11 male students and 7 female students. Due to absence during pre-and post- testing and transfers to other school districts, the final sample of students in the experimental group consisted of 8 male students and 10 female students. In the control group the final sample consisted of 7 male students and 7 female students.

Time Span

The project was carried out during the seven week period between January 1, 1980 and February 15, 1980. Although the project itself was designed to take six weeks, the seventh week was needed to accommodate make-up lessons necessary because of school holidays, scheduled assemblies, and field trip commitments. The lessons were presented twice weekly from 9:00 a.m. - 9:50 a.m. (sometimes to 10:00).

The text, The Fools of Chelm (a synopsis is included in the appendix), was divided into seven chapters. For five weeks, one chapter was read during the first session of the week; two chapters were read during the first session of the sixth week. The chapters were read aloud by me prior to the discussion but after a brief vocabulary lesson to introduce the children to any words I judged necessary for a better understanding of the material. Hung along the walls in the

classroom were posters which contained the names of the characters in the story, as well as some of the place names. This facilitated discussions by providing the students with a handy resource as they did not have a copy of the text and the names were so unusual that it was difficult to retain them all after only one reading of the chapter.

THE INTERVENTION

During the six week period of intervention, Lipman's techniques were applied to the story and students were helped to work through each technique both on the blackboard and on independently written assignments. All of this was done concurrently with discussions of specifically chosen topics from the text. What follows is an overview of some of the lessons that were used. This is to illustrate how the techniques were directly applied to the text, The Fools of Chelm.

Lesson One

The students were introduced to the text, The Fools of Chelm, and told they would be doing a special six week project to develop "our critical thinking skills". Character names and place names were introduced via a wall chart which remained up throughout the project. A brief explanation of the story was given and a vocabulary lesson was developed on the board to present the words, "chaos", "rulership", "wisdom", "pious", and "sage". These words were used during the entire project.

Chapter One was read to the students, followed by

several comprehension questions to check on the students' understanding of the main ideas. (This comprehension check followed the reading of each chapter). Two of the terms previously defined, "rulership" and "wisdom", were then put on the board. Students were asked to do word associations so that I might check their comprehension of these words. For "rulership" some of the responses were: "in charge", "control", "God", "President", "rules", "King", and "laws". For "wisdom" some of the responses were: "designer", "smart", "professor", "wise", "wizard", and "talent".

After the above was done, I introduced the students to the first intervention technique, "discovering alternatives". This technique was used to help students critically view previously held ideas about things. Lipman explains in his Manual that by considering the negative of their idea, children will discover that "the way they now think is not the only way they could think."[30] By giving students examples like "playing" and "not playing", "crying" and "not crying", Lipman feels that:

> The child who works with these notions will begin to see that when he puts thoughts and their negatives into order, they begin to give him a pattern of alternatives. For example, suppose he thinks of 'working' and when he considers the negative, he gets 'not working'. But 'not working' may be interpreted by him as 'playing', so now he has two thoughts, 'working' and 'playing'. And now he has four alternatives:
>
> 1) working and playing
> 2) working but not playing
> 3) playing but not working
> 4) neither working nor playing[31]

The above example was put on the board and discussed with the class. Students were asked to provide examples of each statement as it applied to "real-life" situations. For (1) students responded with "school" because they said "we do both things there". I then put the terms "wisdom" and "rulership" on the board. The students were quick to supply the three missing alternative statements. We discussed each of these statements and tried to relate them to real life situations. The students did this, and also pointed out examples from Chapter One of The Fools of Chelm.

Lesson Two

Work from the first lesson was used to develop this lesson. The term "chaos" was discussed and students were asked to relate it to one of the four alternative statements we had used during the first lesson. "No rulership and no wisdom" was the most frequently chosen alternative. A discussion then ensued regarding what might happen if this condition existed.

"You go crazy"
"People wouldn't follow no rules"
"Breaking into other people's houses and everything"
"Steal food and clothes and everything"

As mentioned before, the sages in the text were known to spend time at their meetings trying to resolve town problems. Chapter One had presented such a meeting to the students. I re-read the conversation of the sages and then asked for volunteers to play the sages. This was a role

playing exercise to allow the students to generate their own alternative solutions to problems just as the sages had done in the story.

Lesson Four

Chapter Two was read during the third lesson. In it the students learned of a solution the sages had made regarding the poverty of the villagers. In addition, the terms "foolish" and "clever" were introduced. During the fourth lesson we took these terms and listed the four alternatives on the board and again applied each to real situations or people.

In the story the solution to relieve the poverty of the villagers was to wage war on a neighboring village. "War" became the topic for another role playing activity. Students were divided into pro and con sides and asked to develop a list of reasons for each side. A new kind of role playing was used to utilize the information compiled by the students. "Open Chair" role-playing is set up as illustrated. Three

```
con side   (0 (0 (0 (0   0)  0) 0) 0)  pro side
                     \   /
                   empty chairs
```

members from either side sit in the chairs, leaving each first chair empty. Each speaker, in turn, must take the "Open Chair" and debate with his or her opponent. After adequate time is allowed for the three representatives of each side to speak, members from the floor are invited to come up and participate on their respective sides.

Lesson Six

By the third week of the project the students' enthusiasm had increased. The characters were becoming very real to them. The issue of fighting was a continuing theme. Rather than work directly with the four alternative statements, I posed questions to the students to give them a chance to apply the process of alternatives to "real-life" situations. The students were asked the reasons for fighting. Answers were given and then I asked for alternative actions to one of the responses.

Response: "Hit with a bat"
Alternative responses: "get out of the way"
:"try to reason first, then fight"
:"ask parents to intercede"
:"tell their parents" (other person)
:""keep cool and don't lose temper"
:"take to court"

Lesson Seven

It was during the fourth week of the project that another of Lipman's techniques was introduced, "discovering inconsistencies and consistencies". Now that students had been exposed to alternatives, I felt that this technique would help to examine their alternatives and to be better able to choose between those that were or were not consistent with resolving the issue.

From the Manual, the following two sentences were used to address this technique. "Is it hotter in the summer or in the city?" and "When is a crooked line straight?"[32] The

first question elicited, "Is it hotter in the country or in the city?" and "Is it hotter in the summer or in the winter?" Students were unable to explain the inconsistency, but were able to re-write the sentence. The second question brought an emphatic "Never!" from one of the students. His reason was that crooked and straight are opposites and so it was impossible.

To relate inconsistencies in sentences to their story, the children were given a set of statements taken directly from The Fools of Chelm. They were asked to read each and comment on the consistency or inconsistency that might be in each. A copy of this work sheet is included in the appendix.

During this lesson students were introduced to syllogisms. These syllogisms were used to help students further develop the process of critically evaluating the alternatives they were being taught to generate. The following two syllogisms from Lipman's Manual were put on the board and worked through with the students.

Goliath was very big.
Palestine was not very big.
Therefore, Goliath was bigger than Palestine.
(people vs. country)

No man lives forever.
But women aren't men.
Therefore, women live forever.
(part vs. whole)[33]

Children found these difficult to deal with. The inconsistency in the second syllogism became apparent after one student informed the class that "women" were included in line one

in the word "men".

Because of the students' difficulty with syllogisms during the ninth lesson I tried another of Lipman's techniques not mentioned before but one I felt necessary to help my students.

In Harry, the book Lipman wrote for his project, two of the characters spend a great deal of time figuring things out. This was referred to as inferring. The Manual presented examples of "syllogistic inference" which means that given two statements, the person will be able to infer a third.[34] I felt this would help the students to see inconsistencies in their choices and so used the following example on the board.

> All carrots are vegetables.
> All vegetables are things that are edible.
> Therefore, all carrots are things that are edible.[35]

The three parts of the syllogism were examined.

> a=carrots b=vegetables c=edible
>
> a=b b=c therefore a=c
>
> (this was simplified to allow the students to see the relationship more clearly)

Several more like the example were worked out and the students began to draw the necessary inferences with relative ease.

Lessons Ten through Twelve

The remaining lessons were very similar to the previously described lessons. The techniques were used repeatedly as they fit in with topics that came from the story. Work-

sheets (see appendix) were used in conjunction with these various techniques and were all teacher-made and designed. Each of the remaining chapters was read and then discussions evolved around issues in the story. As often happens to the best planned lesson in the classroom, some had to be altered on the spot to suit the needs of the students. For the most part, however, the preceding description accurately describes the lessons as they were carried out in the classroom.

MEASURES

To determine the results of the intervention two tests were designed. One (pre-test) was given the day before the project started and the other (post-test) was given the day after the project ended. These measures were designed by me and used instead of standardized tests.

The reason for this was that I felt standardized tests measured a product and only one answer was acceptable. I was trying to develop a process of generating alternatives and therefore required an instrument that would allow students to generate many responses. I did not want students to chose from a set of given answers. I wanted the students to supply the set of possible answers.

Pre-Test-Post-Test

Both pre- and post-tests (see appendix) had the same format. Each test had two parts. Part I consisted of a set of six questions that contained problem situations that a

student might encounter both inside and outside of school.

The problem situations were chosen very carefully. My students were caught up in habit-bound thinking which affected their responses to questions and situations. If a child was verbally assaulted, the assaultee had to punch, kick, slap, or challenge the assaulter. If a test came back with poor results, the student threw the paper away after crumbling it up into a ball. I was curious to see if, as a result of our discussion about the problem situations that developed in the story, the students would be able to find alternative ideas or choices of action to constructively resolve "real-life" situations.

The students were given 35 minutes for Part I and directed to "answer the question at the end of each problem in the best way that you can. Write as many solutions to the problem as you can think of." The following is a sample question taken from the pre-test together with responses elicited from seven different protocols.

Question: Mrs. Eagle had to go shopping at the grocery store and told John to have his room cleaned up by the time she returned home. John started to clean his room but then he remembered that he was supposed to be at a boy scout meeting in five minutes. What might John do?

Responses: I will call and say I will be late.

:Clean it when I get home from boy scouts.

:Ask your sister to do you a favor.

:Clean up his room very fast.

:Go to the boy scout meeting and after

the meeting go home and tell his mother what happened and then he could clean his room.

:If I were John, do my room as my mother told me to because you must always obey.

:Run out to the car and tell his mother that he has a boy scout meeting in five minutes.

To show the reader that the pre- and post-tests were similar in format, I include here a sample question from the post-test together with responses elicited from eight protocols:

Question: After school on Tuesday, Robert and his friend Rick went to Oscos to do an errand for Rick's mother. On the way home from the store, Rick pulled two yo-yos out of his pocket and gave one to Robert. Robert did not see Rick pay for them at the check-out counter and asked where they came from and Rick said he had stolen them. What might Robert do?

Responses: Tell Rick's mother.

:Tell the manager or police.

:He could bring them back to the store and let the store owner take care of it.

:Go back and pay for them.

:He can take Rick back to the store and let the store manager take care of it.

:He might take the yo-yo.

:Robert would tell Rick to put it back and ask his mother if he could have the money to have it but if that did not work, ask his mother if he could have a job around the house, or be a paper boy.

:What Robert might do is keep away from Rick until he stops stealing.

Part II of both tests (pre and post) consisted of a list of ten common words taken from a grade five thesaurus. Some of the words used were: friend, build, house, people,

and foolish. The students were given 10 minutes to "write as many words as you can think of that mean the same or nearly the same as the given word." The purpose of Part II was to measure any increase in fluency that might have occurred as a result of the discussion format used during the intervention.

Scoring of Pre-Post Tests

First, to obtain a quantity score, a count was taken of the total number of responses given to the six questions (see figures 1a & 1b) in Part I of the test. Duplicate responses were counted as one response. For example, if a student said, "ask my mother for help," and "ask my father for help," both were counted as one answer and received one point.

Second, to obtain a quality score (see figures 2a & 2b) all responses were required to meet three main criteria. These criteria were: 1) address the problem directly, 2) resolve the problem, and 3) be feasible for the student to implement. A response that addressed all three criteria received one point. An additional point was given if the response was a unique one, or the only one of its kind given.

In Part II, the answers received one point if they appeared in the student's fifth grade thesaurus or fifth grade dictionary (see figures 3a & 3b).

Because the tests were not standardized and therefore required some judgment on the part of the scorer, a blind rater was used as a check on the experimenter. The pre- and

post tests were given to the blind rater in one pile. There was no distinction made between pre-post tests or between control or experimental groups. The blind rater was given the criteria for the answers in Part I. A copy of both the thesaurus and the dictionary were also given to the rater for use in the scoring of Part II of the tests. The blind rater's scores were recorded on a sheet that was coded to match the protocols.

Once the scores of both groups were recorded, the scores were compared on the average gain or loss pre-post test on the three dependent measures, namely, quantity, quality, and synosyms. A t-test of significance at a $p < .05$ level was then done on these results to see if the intervention proved or disproved the hypothesis. A test of correlations of the scoring of the experimenter and the blind rater was also done to see how reliable the experimenter's scoring had been. The results of these tests are reported on in Chapter VI.

FIGURE 1a
DISTRIBUTION OF NUMBER OF RESPONSES OF EXPERIMENTAL GROUP PRE AND POST TEST

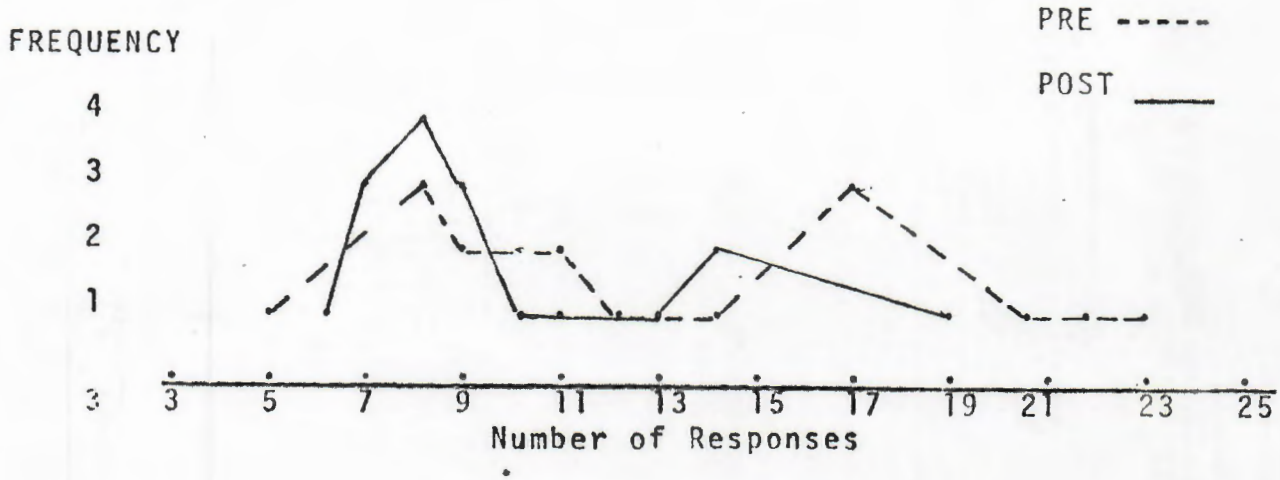


FIGURE 1b
DISTRIBUTION OF NUMBER OF RESPONSES OF CONTROL GROUP PRE AND POST TEST

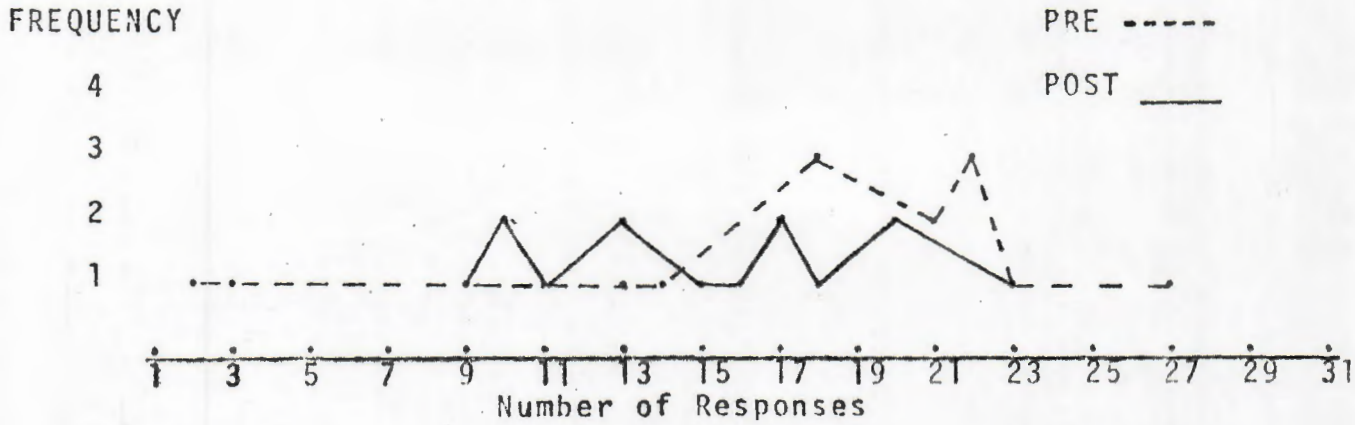


FIGURE 2a
DISTRIBUTION OF THE QUALITY RESPONSES OF EXPERIMENTAL GROUP PRE AND POST TEST

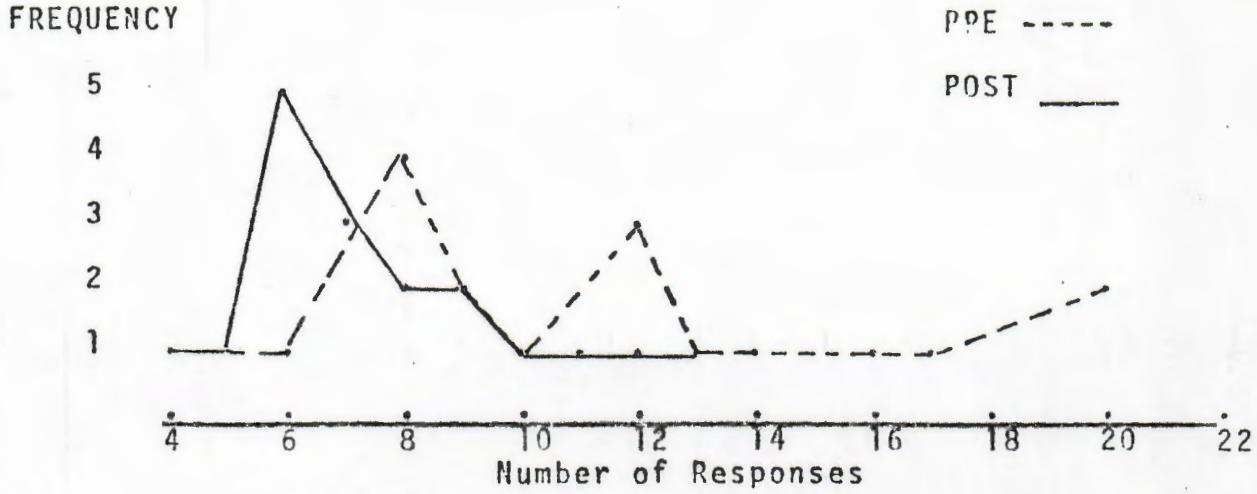


FIGURE 2b
DISTRIBUTION OF THE QUALITY RESPONSES OF THE CONTROL GROUP PRE AND POST TEST

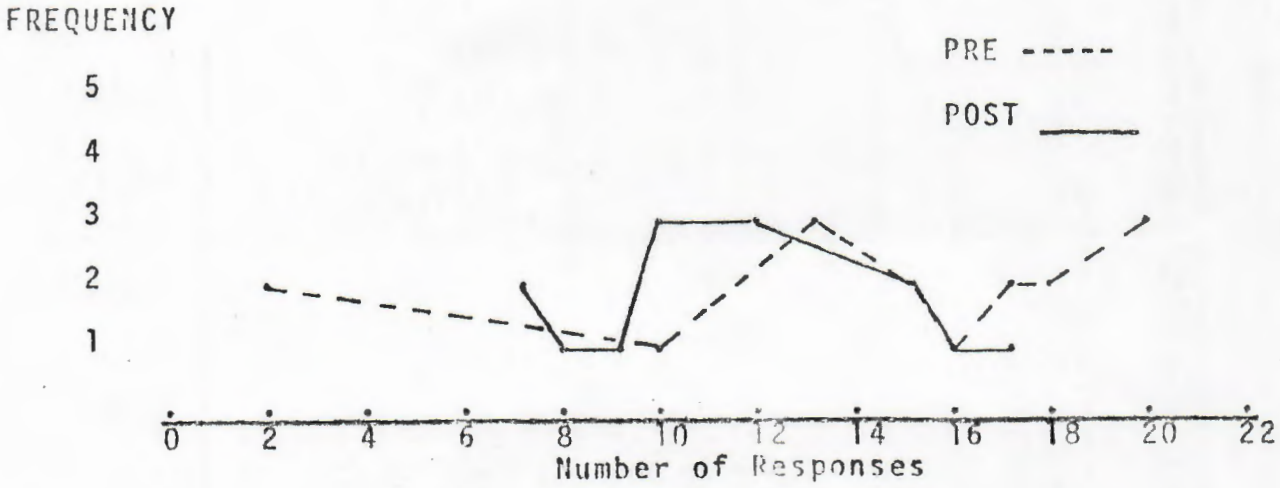


FIGURE 3a
DISTRIBUTION OF THE NUMBER OF SYNONYMS ELICITED FOR EXPERIMENTAL GROUP PRE AND POST TEST

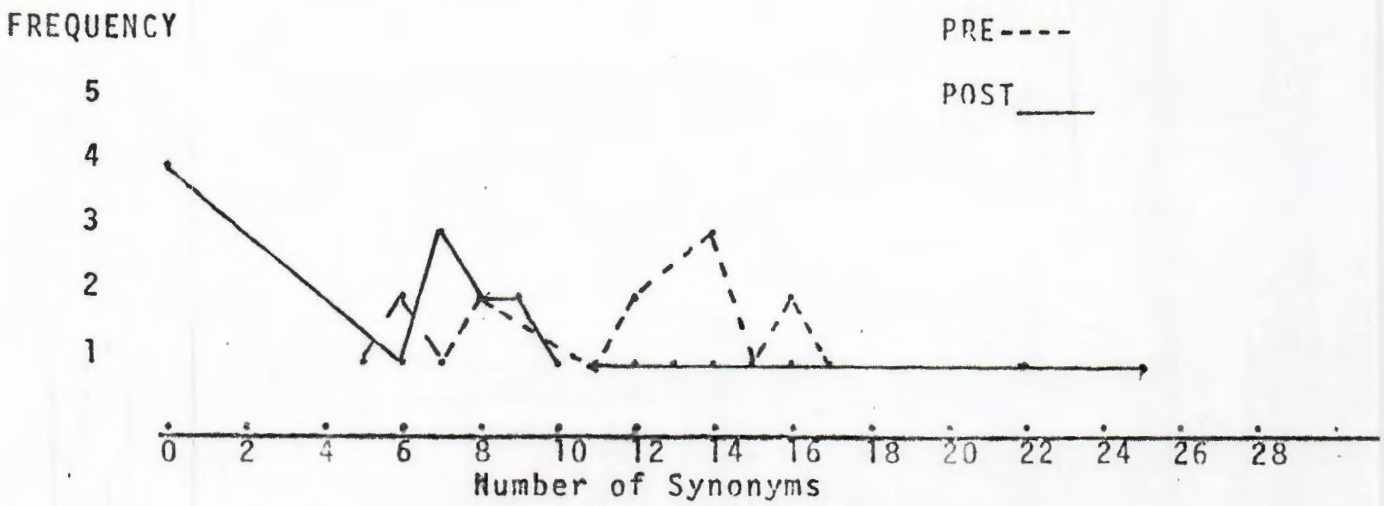
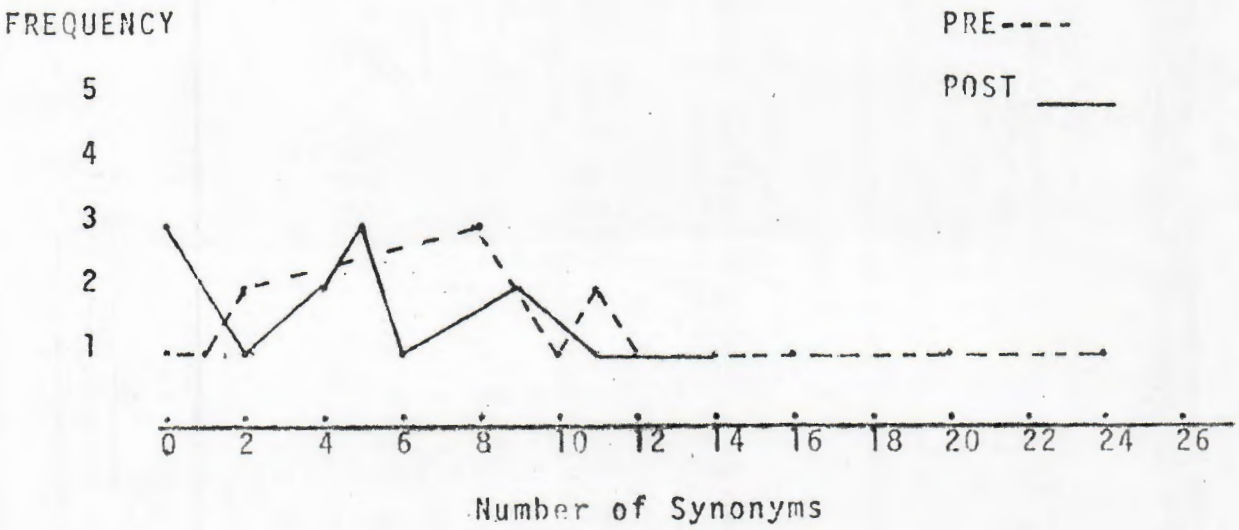


FIGURE 3b
DISTRIBUTION OF THE NUMBER OF SYNONYMS ELICITED FOR CONTROL GROUP PRE AND POST



CHAPTER VI

STATISTICAL DATA AND DISCUSSION

The statistical results of the study are difficult to interpret. Table 1 indicates a puzzling decrease on all quantitative measures from the administration of the pre-test to the administration of the post-test on both the control and the experimental group. The total number of responses to the six questions in Part I for the experimental group went from a mean of 12.88 on the pre-test to a mean of 9.94 on the post-test, a decrease of 2.94 responses. The control group went from a mean of 17.42 on the pre-test to a mean of 15.14 on the post-test, a decrease of 2.28 responses. The total number of quality responses for the experimental group had a mean drop of 3.73 responses and for the control group there was a mean drop of 2.78 responses.

The experimental group did significantly worse on Quality ($t=2.75; p < .01$), Quantity ($t=2.04; p < .05$), and Synonyms ($t=2.75; p < .01$) on the second administration as compared to the first administration. The same trend appeared in the control group, although it did not quite reach statistical significance in terms of the Quality ($t=2.04; p < .05$), or the Quantity ($t=2.04; p < .05$) measures, but did reach significance in Synonyms ($t=2.04; p < .05$).

TABLE 1

MEANS, STANDARD DEVIATIONS AND SIGNIFICANCE OF THE EXPERIMENTAL AND CONTROL GROUPS PRE AND POST TESTS

	QUANTITY		QUALITY		SYNONYMS		
	M	S.D.	M	S.D.	M	S.D.	
PRE TEST	12.88	5.38	11.5	4.48	12.77	5.80	EXPERIMENTAL N=18
POST TEST	9.94	3.33	7.77	2.46	8.39	6.40	
SIGNIFICANCE	t=2.58*		t=3.87**		t=4.59**		
	QUANTITY		QUALITY		SYNONYMS		
	M	S.D.	M	S.D.	M	S.D.	
PRE TEST	17.42	7.28	14.21	6.00	9.50	7.10	CONTROL N=14
POST TEST	15.14	4.31	11.43	3.30	5.29	4.25	
SIGNIFICANCE	t=1.68		t=1.94		t=2.24*		

*$p < .05$ **$p < .01$

Table 2 shows the results of a comparison between the overall gain or loss on the three measures of both the experimental group and the control group. An examination of Table 2 indicates that there was no significant difference between the experimental group and the control groups on any of the three measures (t's all < 1.00).

TABLE 2

AVERAGE GAIN OR LOSS PRE-POST TEST ON THREE DEPENDENT MEASURES BETWEEN EXPERIMENTAL AND CONTROL GROUPS

	EXPERIMENTAL		CONTROL		T	P
	M	S.D.	M	S.D.		
QUANTITY	-2.94	1.14	-2.28	1.36	.37	NS
QUALITY	-3.73	.096	-2.78	1.43	.55	NS
SYNONYMS	-4.38	.93	-4.21	1.88	.08	NS

The statistical results of the study need to be re-examined. There was a significant decline seen in both groups' scores on the three dependent variables between the pre- and post-tests. This suggests that some common factor(s) may have affected the scores of both groups. One possibility may be the effect merely of taking such a test for a second time. A second possibility could be the fact that the post-test, although administered the same way as the pre-test, was given the day before a vacation. The test was 1) no longer a novelty and 2) the students were eager to begin their vacation. This may have caused them to rush through the test to complete it.

A third possibility could have been the questions asked on the different forms of the tests. In writing the

six questions for Part I of both tests, the content of the questions could have been more difficult on one than the other. To check on this, half of the students in the control group and in the experimental group could have been given the pre-test and the remaining half in both groups could have been given the post-test before the intervention. After the six weeks, the students who were initially given the pre-test could have been given the post-test and vice versa. This was not done.

Part I on both forms of the test was designed to measure the student's ability to generate alternative solutions. The intervention, however, addressed itself to increasing students' ability to generate alternatives as well as their ability to detect consistency. The test directed students to provide "many solutions" to the problem and the "best ways" to solve the problem. As a result of the intervention, students may have become increasingly critical of the alternatives they generated (also a goal of the intervention) and more selective of those they wrote down. It is less likely that this overlaying of results would explain the decrease in ability to generate synonyms, although even here the test directions imply "quality control" of synonymy.

The main hypothesis that the use of "discovering alternatives" and "discovering consistencies and inconsistencies" via the "discussion format" when applied to children's literature would develop the process of critical thinking and

enable students to break patterns of habit-bound thinking was not supported by the statistical techniques used in this study. This could be attributed to the reasons given above as well as to the possibility that the instrument used was not sensitive enough to detect the differences being measured. Measures more sensitive to quality or rationale for alternatives might have produced a different picture. In fact, formative data collected during the study, indicate that the secondary hypothesis, namely that a carry over in process will be seen in other areas of the curriculum, has been supported. The next chapter will present some of that formative data. This is necessary to provide a complete picture of the results of the project.

CHAPTER VII

FORMATIVE DATA AND DISCUSSION

In this Chapter the reader will find evidence for support of the secondary hypothesis that was stated in Chapters II and V. Included here are several entries taken directly from the daily journal and excerpts from written transcripts and taped discussions. This will provide the reader with a total picture of the results of the project.

Some of the principles of discussion, as defined by Dr. Evans in Chapter II, are evident in the following entry. To begin the second days' lesson I asked the students what they thought would happen if a crisis existed. This was the response to that question.

Chorus: You go crazy!

S: You be killed!

T: People wouldn't follow no rules. Breaking into other people's house and everything.

D: I've got something to say to T...when she said everybody break into your house... everybody might be dumb and might not know how to build a house. They might not know how to build a house. They might live in caves and all that (the idea of caves was mentioned in the first chapter as part of the history of the people of Chelm, which is perhaps where this line of reasoning originated).

T: They'll just go in the cave.

D: And steal rocks, that's about it.

?: Steal food and clothes.

TR: I've got something for D...what if they cleaned the cave out and there wasn't no rocks in the cave...

D: What would be in there?

R: If they didn't have enough smarts to make a house, how are they gonna have enough to make clothes?

D: How can they know about money?

What happened from the first week was that the students listened to each other. Their answers, for the most part, followed from the preceding ones. Some of the students "piggy-backed" or "built upon" a previous response. They directed their statements to previous speakers and compelled them to think. Not all students were doing this, but all students were exposed to it and anticipated the responses. This was a new way to argue for most of them; it was an argument with words and not with fists.

Another example of how the discussion format provided students with exercise in thinking can be seen in the following entry. It dealt with the term "wisdom" that had been discussed briefly in a preceding lesson. Going on instinct, I introduced the term during this lesson. I began by asking the students, "What is wisdom?". The following discussion ensued:

W: having knowledge about something

S: makes you think (this student was one of my slower learners; she always had trouble saying what she meant and writing what she meant. Here she attempted to participate, was accepted by fellow students, taken seriously, and made valuable contributions to the remainder of the discussions as a result. A

bonus has been an obvious gain in self-confidence very noticeable in her recent class work).

R: something that you might want to do

S.M.: what your body tells you to do

S.D.: I think wisdom is when you do something right, and you think about it and it tells you if you want to do it and if its right or wrong. Like we was up there discussing a problem, (referring to the role playing exercise) that's like wisdom cause you can think of something to solve a problem, and then when it's solved you can go back and think of what you did and already said. (This is perhaps one of the most poignant definitions recorded during the project. Although definitely in need of some grammatical polish, I feel this child certainly has understood the meaning of wisdom. Unfortunately, she moved during the third week of our project and with her, I'm sure, went a lot of very valuable ideas that would have greatly contributed to our work. Although I'm certain she never heard of deferred judgment, she instinctively knew what it was).

In Chapter V, the open-chair role playing exercise was described to the reader. This exercise produced what I consider to be a highlight of the project and a reason for using the discussion format in the classroom. The open-chair role playing was used to enable the students to conduct a debate on the pros and cons of war.

The debate began with the students trying to find answers to their opponents' remarks by skimming their sheets of ideas that had been developed during a brainstorming session held prior to the role playing exercise. This was their security blanket, but against the rules of debate. After a brief period I went up and took the papers away to a chorus of "Oh no!", "Please!". This slowed the debate

down considerably. Once the children got used to being without their printed words, the speed picked up. It began simply with reasons for a war and counter responses from the other side. Then something that was said triggered off a totally unexpected response which completely turned the debate around, got the children on the edge of their chairs and caused them to challenge each other as never before. Here are some highlights of that debate.

D: What about Iran? They didn't think like that. They still have the hostages.

T: Well at least we're safe and sound.

D: Ya, but the hostages ain't and they're from America.

T: Why did they take them in the first place?

D: Cause they wanted some guy to come to Iran and the guy just wouldn't go.

?: We should keep the Shah till they give the hostages back.

TR: Then they'll kill us all.

D: How they gonna kill us all? Ain't the U.S. bigger than Iran-yes--well if it's bigger, the U.S. should win. (Discussion continues for awhile on why we should try to convince the Shah to go back. Other children begin to demand their turn. Many bits of information began to be interjected. These have obviously been picked up from television news reports. The following are to show the kinds of ideas discussed and the different turns the debate took).

T: But what did the Irans do to you?

D: But they got the hostages. We don't got no right to make a man go back to his own country.

DEV: They will kill him.

D: What did he do wrong?

DEV: He did something wrong to them.

D: But he didn't even want to have a conference on T.V.

TR: Cause he knew they'd find him.

S.M.: They should kill the Shah to get the hostages.

D: (Jumping out of his seat). See that!! You heard what he said and he's on the con side. (D was developing a good ear for picking up inconsistencies in other student's reasoning).

W: We should make a trade.

D: When we give him back they'll kill the Shah and just keep the hostages.

W: How do you know? Have you tried it? It's a chance we have to take.

(Teacher interrupts and invites more comments from the floor.)

D: Sneak attack...Hitler...radar...spy cut wires...

(By now D has assumed my role of facilitator and had so much to say he found it hard to control himself, but he did try).

N: They could have killed the hostages already.

W: Ya, they could have taken pictures and then shot the hostages and then still show the pictures.

M.A.: We shouldn't have a war...(hesitates here and T steps in to help as she senses what M.A. wants to say) T: too many people...M.A. oh ya, too many people are losing their lives to save other lives. (Coming up to speak was a big step for M.A. as she generally does not contribute to the class during lesson time.

D: How are we gonna get those hostages. Tell me RIGHT NOW!!!

(D has immediately shifted the group back on the right track.)

N: Make a deal.

D: How do you know they're gonna want to make a deal?

E: The only way your gonna know if they'll make a deal is to ask them and they'll say yes or no.

(At this point all jump in as the debate has gotten quite heated. S.H. tries to remind the group of the rules of debate and finally succeeds in gaining the floor. The children at this point have fully grasped the debate format but have gone beyond it. They illustrate by their enthusiasm a need to express their opinions and be taken seriously. When taken seriously, they did a fine job and put extra effort into the task.

As Lipman said, when taken seriously, children will produce more than is expected of them.)

From these excerpts it is not possible to get the full impact of this discussion carried on by a group of ten and eleven year old children. I'm convinced, after witnessing this, that if I had stopped after the brainstorming session a great deal would have been lost. Several things need to be mentioned at this point. The debate was carried on for the most part by the students themselves for approximately thirty-five minutes. At no point in the discussion did one child attack anything but issues. A feat for children who spend a good part of their lives fighting, both physically and verbally. The discussion format provided them with a healthy channel for using their energies in a constructive manner. The discussion afforded the students a place within which to use bits and pieces of information in a very valuable manner. The amount of knowledge the children illustrated about this current topic surprised me and made me realize that my students were more aware of their world than I had previously thought.

There are other benefits to be derived as a result of holding discussions. The discussion format provided a vehicle through which the children could hear their thoughts out loud. This afforded them a better opportunity to examine these thoughts more critically. One of the students, S.M., did this repeatedly. He would make a statement, listen to other's comments and then modify his statement. It helped

him to hear other's ideas and to weigh his response against those other responses. He restated his idea and each time he or the others did this their new responses were accepted without comment or teasing. Sometimes students challenged others to clarify their statements, not as an attack, but rather as a way of getting the facts straight. "Thus the variety of thinking styles in the classroom, coupled with a variety of backgrounds, values and life experiences, (had) contributed significantly to the creation of a community of inquiry."[36]

For many of my students, learning to think critically took place as a result of the interpersonal discussion. "The discussion, in turn, brings other advantages. In particular, it promotes children's awareness of one another's personalities, interests, values, beliefs and biases. This increased sensititivity is one of the most valuable by-products of classroom communication."[37] To this I would add that the children developed a sense of trust and comfort with the group and became more willing to open up and share their ideas. Knowing that they would not be told their answers were wrong was very comforting. There was a sense of working together to search out all possible ways of looking at things. It was important for my students to feel this and that no one answer would be valued more than the other.

The fact that the discussion format provided a sense of trust amongst the students and promoted a willingness

to open up and share experiences is shown by this journal entry.

D, one of my students, had missed a lesson due to illness and upon returning to school, he asked to be filled in on what he had missed, something he had never done before. A brief review was given; then a quote from the story was given regarding stealing and it no longer being a crime except if one stole from a thief. D responded with, "What?", "That's crazy; everyone will be going around stealing from everyone else. That just doesn't make sense." I then asked, "What would you do if that same rule applied here and now?" "I'd steal," replied D, "just like everyone else!" Then after a moment he changed his mind. "Hold it! No I wouldn't want to hurt anyone's feelings, cause I know what it's like." He then related a story of his experience at summer camp. "Ya know, one time at camp last summer when I was taking a shower someone stole my underwear. I didn't like that." He related this with a smile, but it was obvious that he was upset just remembering the incident. "You know, everyone got to play and I just had to sit there cause my pants were sort of loose and you know if I got up and moved around my pants would have fallen down. The next day someone stole my tee shirt." At this point I asked if the counselors were there to help. D said, rather indignantly, "You know, I sat there with nothing on and no one even asked me where my shirt was or nothing. Do you believe that?"

We shared his sense of unfairness and then to make us feel better, he explained that he had gotten his father to buy him a lock and nothing else was stolen.

Another observable change in the students was their sense of self-worth and personal growth. Two excerpts from the journal will serve to illustrate this.

One afternoon W decided I looked tired so he took my Language book, walked over to my chair where I usually sit when talking to the class, and proceeded to tackle the lesson, sight unseen. It was almost magical to see how quickly the class noted what he was attempting, came to order and cooperated. D, who is a close friend, decided to be silly as he misjudged W's intent in doing this. He was promptly asked to leave the room until he could cooperate. The lesson went well; W assigned a written assignment after refusing to accept any help from me. About ten minutes went by and there was a problem about question three. W came up to my desk, leaned over and quietly said, "I'm having trouble explaining number three. Can you help out so I can explain to them?" Of course I did, but I had a hard time keeping myself from hugging him, I was so proud of him. While walking out of school that afternoon, W asked me on a scale of one to five how I'd rate him on his performance. I teasingly said three. He looked at me and said, "Now wait a minute. I threw D out of the room. I went to get him back in and he said everyone will laugh at me. Well,

I managed to bring him back in with no one laughing at him. That's worth something." I reconsidered and gave him a four. He was satisfied and walked home with a smile on his face.

What does all that mean? Well, for someone who has never met W it is an amusing anecdote. But for his teacher who has worked with him it shows a significant change in his sense of self-worth. The courage shown in taking over the class, the confidence shown in handling the lesson, the sense seen in his knowing when to ask for help are all noteworthy. Most important was his ability to give what he considered a valid reason for more points because this shows he is thinking and acting upon it.

During a reading lesson with my slow group the second incident occurred. This group consistently answered questions by copying words, phrases, and sentences from their text. We had just finished reading that Crickett and Anna found it very difficult to supply even their simplest needs. I asked S to interpret that sentence. She looked straight at me and said, "It means that they were poor". A big improvement for her usual responses which were given with head bowed, hesitation, or tears if no answer was known. This was a confident response and did not use the words in the text. She gained considerably from the discussions as each time her answers were accepted, she felt encouraged to contribute more and she did. Here she was able to use her confidence to help in reading. There has also been a noticeable change in her newly found courage to

ask for help when she needs it instead of getting upset and crying.

One of the problems the students had was their inability to draw the necessary connections between bits and pieces of seemingly unrelated material. It has already been shown in the excerpt from the war tape that the discussion format helped to correct this problem. Here I give an example of how the use of syllogism, another intervention, produced an observable carry-over of process into another area of the curriculum.

After returning from a week of vacation, I was reviewing math on the board and the children were unable to see the relationship I was trying to illustrate. So I tried to apply a process they had really only been briefly exposed to. On the board I wrote:

$3 \div 1 = \frac{3}{1}$ $\frac{3}{1} = 3$ teacher

$a = b$ $b = c$ teacher

therefore $a = c$ students (without being asked)

We put several more examples on the board, as the students were quite caught up in it. A quiz was given and every child received one hundred. Two days later another quiz was given and the results were not as good, but there was a definite lack of the usual low grades. The scale was definitely tipped to illustrate some measurable carry-over.

Syllogisms also proved valuable in helping students detect inconsistencies in each other's reasoning. Two weeks

after the project had ended I recorded this incident. When asked where his homework was, T gave several reasons which he considered valid excuses. W, D, and E, almost as if on cue, simultaneously said to T, "Oh no! your reasons do not follow and do not make sense." This has been invaluable to me. Now, when I ask where a home lesson is, instead of inventive excuses I generally get, "I didn't do it, but I'll do it tonight and bring it in tomorrow." And eight times out of ten, it is brought in the next day.

One intervention that has not been dealt with so far is "discovering alternatives". It was explained in Chapter V that the techniques were applied directly to the text, The Fools of Chelm, whenever possible. The following is an example of how this worked.

"Gronam Ox is to abdicate. He must be forced to do so of his own free will."[38] This sentence from the text was used to generate the four alternatives:

Force and Free Will
Force and No Free Will
No Force and Free Will
No Force and No Free Will

Once these were on the board, the students were asked to comment on each. What follows is the results of this exercise:

Force and Free Will

T: You can use both of them; force to go to jail if you kill someone and free will you can do something you like on your leisure time. (Leisure time is a term used during our Social Studies lessons and its use here

indicates an attempt at connecting information which was a hoped for result).

S.M.: Nobody on their own is free--you can do things that are necessary for you to do and you can't do things that are not necessary.

Teacher: Repeats Force and Free Will

S.M.: Like real life--like kids in this classroom can't do anything they like in this school while their doing their work--they can't fight.

Teacher: Which is stronger--force or free will?

E: Force cause you're the boss and you tell us what to do (piggy-backed on S.M.'s idea).

No Force and No Free Will

P: Just standing there in the middle.

S: It's like being caught in a loophole--you can't go no where and you can't do nothin on your own. (S is trying to make a connection here to our definition of the word loophole that had been done previous to this lesson, again illustrating an attempt to make a connection between different lessons).

Free Will and No Force

E: If you want to do something on your own and no one can stop you.

D: Lot of chaos--if everyone did their own thing then every one would be running around and making the town noisy (chaos-a word defined during the first week of the project used here).

T: Some people won't be noisy, P, cause some people are quiet--it might not be noisy--some people will just study and be quiet (directing comments to previous speaker).

M.A.: If your mother forces you to do something your mother forces you to do it.

Force and No Free Will

M.A.: Nothing to do--you just sit around-mother can

force you to do it.

S: You have to do what someone tell you to do.

D: It's like that picture "Roots" when Black people had force but no free will. They had to work in the fields; they didn't have no free will or free time. (A very good example brought up to illustrate his point, and shows his attempt to make connections between bits of information he has been exposed to).

T: Somebody forced them to give up their freedom (piggy-backed on the above statement).

R: Hostages have no free will--Iranians have control of the hostages. (Another example of applying what has been previously learned and discussed in class).

I think the best way to sum up the significance of the formative data is to include one last journal entry. This entry is the last one made during the actual project time.

At the end of the six weeks, one of the students decided she was not quite ready to give up her time with The Fools of Chelm and managed to bring in a story about Chelm that she discovered in one of her sister's books. She insisted I read it to the class the following day. The Snow in Chelm, by I.B. Singer was read to the class. The results were encouraging. One of the incidents in the story had to do with nailing the moon up in a barrel to capture it. The students stopped me to say how foolish this was. "The moon can't be caught. That's impossible!!"

It had snowed in Chelm and the sages wanted to gather up the precious gems that appeared to them on the snow. They devised a plan whereby a young boy would act as a

messenger and would tap on the windows of all the houses to forbid the people to leave their homes until the jewels had been safely gathered. The problem of how he would do this without trampling the jewels was quickly resolved. Four people would carry him around on a table. Naturally the next morning the jewels were trampled and this was attributed to the four carrying the table. To avoid this happening the next time it snowed, the wise sages decided that four others would carry those carrying the table. When the students heard this, they could not contain themselves. "No way!" "They still have the same problem." The discussion ended when one of the students observed, "It really doesn't matter what they do cause there ain't no jewels to catch any way."

CHAPTER VIII

SOME CONCLUDING REMARKS

In Chapter VI, the reader was presented with the results of the statistical data which was collected from the pre-post test results. The purpose of these tests was to provide data that would confirm the main hypothesis which stated that as a result of teaching critical thinking skills, students would alter their patterns of habit-bound thinking. Chapter VII presented data that was taken directly from the daily journal kept by the experimenter. The purpose of this data was to provide evidence to support the secondary hypothesis which stated that as a result of the intervention, students would develop a process of critical thinking that would carry over into other areas of the curriculum as well as their personal lives.

The statistical results of this study do not support the main hypothesis as stated above. The test itself may not have been designed to accurately measure what was being taught. Further research into designing a test that would be more sensitive to measuring an increase in the critical thinking skills dealt with in this project, but in an open-ended format, is necessary.

When examining the formative data, however, a

different picture of the results of the project is evident. The carry over process hoped for was seen in the classroom as shown in Chapter VII. The critical thinking skills did contribute to the students' success in other areas of the curriculum and did enable them to better handle personal issues and problems. The observable gains made by the students were many.

1) Some of the passive students were beginning to participate by the fourth week of the project. Two months have passed since the project officially ended and they are still contributing.
2) Students have continued to contribute pieces of information they pick up outside of the classroom to the curriculum when applicable. This began during the project and was encouraged by the discussion format used.
3) Students learned to respect each other's opinions.
4) Students learned to disagree with a "statement" and not the speaker.
5) Most of the students accepted the idea that they were entitled to their own opinion and that it didn't have to agree with other's opinions.
6) Students accepted that there would not always be a definitive answer to every question.
7) All students had some measure of success with "generating alternatives" and "syllogisms". As a result, their approach to the curriculum has been critical rather than accepting. They are questioning a lot more.
8) Most students learned how to carry on a discussion and gain new knowledge from it.

The above indicates that the students were provided with some of the processes associated with critical thinking. This process was being applied to more than *The Fools of Chelm*. These gains made by the students will contribute to their education both in school and outside of school.

The process learned has enabled them to begin to alter their habitual responses. Accidently bumping into someone now brings an apology and not a fight. Excuses for not doing homework are being replaced with, "I didn't do it, but I will tonight." Disagreements with fellow students are now discussed rather than directly leading to physical conflict.

Students are people first. As people, they must be able to function in the world outside of the classroom. Education must prepare the student to live in that world. The curriculum stresses learning facts and concepts. Although this is important, it does not provide the student with a well rounded education or as Dewey would say, it does not contribute to a "continuum of experience". In addition to being taught the curriculum, students must also be led to develop a process of critical thinking that will better prepare them to deal with all learning experiences. They must be able to critically examine both their educational and "real-life" experiences to evaluate the value of these experiences to their life and to their growth as people.

Inner-city children of today are faced with situations and exposed to experiences that have the potential to overwhelm them. Incorporating the "discussion format" into their learning environment in school can provide them with a medium into which they can bring these social experiences. Providing the students with critical thinking skills will then enable them to examine these experiences

and deal with them in a productive fashion.

Education must provide the students with a process of thinking that will serve them in all areas of their lives. Rote memorization of facts results in learning a set of facts. Helping the student to "discover alternatives" and to "detect inconsistencies and consistencies" begins to develop a style or process of thinking that can be applied to all areas of his or her life. Teach the students the steps of division, but then show how division can help in providing the student and his or her friends with an equal share of the pizza they are about to eat.

The latest kitchen utensil is the food processor. It can do the job of several already existing appliances in the kitchen. There will never be an invention to replace the human brain. Education must therefore adopt the scientific method and try to improve the functions of the brain. Critical thinking skills do provide the student with a process of thinking that will enable him or her to better meet and deal with academic and "real-life" experiences. It is the job of education to address the needs of the total child and to provide skills that will be as useful outside of the classroom as they are inside of the classroom. Educators must find a way to bring to the curriculum techniques that will directly and effectively help the students to gain more from it. Educators must learn to judge the students' success by noting daily improvements

and not solely on the basis of written tests. As a result of the project, I have learned to place more value on the students overall performance rather than only on the printed work.

"Thinking and Literacy", an article by Jane R. Martin contained the following comment that is often heard in the classroom. "It's funny, but I really misjudged that student. From his comment in class I had gotten the impression he understood the material almost as well as I did, but his final exam is badly written. He obviously is a poor student."[39] As Sarason has pointed out, teachers often complain that the administration tends to judge their success or failure on the basis of the results of their students' test scores. It is time for teachers to stop doing this same thing to their students. As educators, we must teach facts, concepts and a process of critical thinking to help the total student. Then we must find a more sensitive way of measuring gains that the students make.

APPENDIX

I.C.R.T. AND METROPOLITAN ACHIEVEMENT TEST

Each May the students are given the Metropolitan Achievement Test (MAT) to measure progress made during the school year. Students are expected to gain one year in performance. When the scores are returned to the school in June, I will compare the results of the experimental group with those of the control group. I am anxious to see if there will be any noticeable difference between the expected gain for both groups and the actual gain for both groups and a comparison of the two. One could speculate that any significant gain was a result of the intervention (teaching of critical thinking skills). However, because the first MAT was given a full seven months prior to the project, I can do no more than speculate.

The I.C.R.T. is a test whose results come back in the form of a printout of the number of skills a student has mastered and the grade level of each skill. For example, student A in grade five may take a test in which twenty-five skills are being measured. Of these twenty-five skills, five may show mastery at the sixth grade level, ten at the fifth grade level, six at the fourth grade level, and four at the third grade level. These tests were given in October of 1979 and April of 1980, relatively close to the time of the project (the six week period between Christmas vacation and February vacation). The scores of both groups have been recorded for the October test. I will record the

scores for the April test when they are returned in May and check to see if there is a significant gain for the students in the experimental group versus the control group. It is hoped that this will prove to be a better instrument for measuring any gain that might have occurred as a result of the project.

TABLE 3

CORRELATIONS OF TEST RESULTS PRE AND POST TEST FOR BLIND RATER AND EXPERIMENTER

VARIABLE	EXPERIMENTAL GROUP		CONTROL GROUP	
	PRE	POST	PRE	POST
QUANTITY	.96	.96	.97	.96
QUALITY	.86	.71	.93	.92
SYNONYMS	.93	.99	.99	.97

FOOLS OF CHELM AND THEIR HISTORY By I.B. Singer

A SYNOPIS

After centuries of evolving from microbes, amoebas, and gefilte fish, Chelmites prided themselves on their sagacity and insight. So during the reign of Gronam Ox, when the first 'crisis' occurred--the moment the first word 'crisis' appeared in the language the people realized there was one--the sages of Chelm resolved to arm the yet unmilitarized Chelmites to wage war against the people of Gorshkov. Even the abuses of Gronam Ox's wife, who told him, "You not only wear the horns of an ox, but you have the brains of one," failed to dissuade him from the maneuver, and when the coughing, sniffing, befuddled Chelmites' army arrived at Mazelborsht instead of Gorshkov, Gronam decided to pillage the town, since..."No matter whom we attack, it will be exactly what they deserve." The rest of the history of Chelm contained an adequate modicum of worker's revolution and women's liberation; but despite some setbacks, Gronam Ox remained optimistic: "We do not wish to conquer the world, but our wisdom is spreading throughout it just the same...the chances are good that someday the whole world will be one great Chelm." Drawing very loosely--very loosely--on Chelm legendry, the author satirizes government, politics, and human foibles in a story that should have different meanings to readers of different ages but that emerges for all readers as a smooth, humorous narrative,--an amusing story well told.

(The Horn Book, December, 1973)

PRE-TEST

PART I

DIRECTIONS: Below is a set of problems. Read each one carefully. Then answer the question at the end of each problem in the best way that you can. Write as many solutions to the problem as you can think of.

1. Jeffrey's family moved to a new town because his father got a new job. It is Jeffrey's first day in your classroom and he feels uncomfortable about being the new boy. What might you do when Jeffrey enters your class on his first day?

2. Rick and Susan decide to go ice skating on the pond at the end of their street. When they get there, Susan notices a "No Skating" sign and remembers that it had been warm for the last two days. She tells Rick but he insists that they go skating anyway. What might Susan do?

3. Mrs. Eagle had to go shopping at the grocery store and told John to have his room cleaned up by the time she got back home. John started to clean his room but then he remembered that he was supposed to be at a Boy Scout Meeting in five minutes. What might John do?

4. Susan received a new bike for her birthday. While she was at ballet class, her younger sister took the bike without permission and went for a ride. The bike got a flat tire while Susan's sister was riding it. What might the younger sister do?

5. Dwayne was asked to babysit for his younger brother while their mother went to the dentist. After she left, a few of Dwayne's friends came by to ask him to come with them to play baseball. Baseball is Dwayne's favorite sport. What might Dwayne do?

6. Marcy and Maria have been best friends for three years. Today Marcy found out that Maria's family would be moving far away because of her father's

new job. Both girls are very upset about being separated. What might they do?

PART II

DIRECTIONS: Below is a list of words. Beside each one you are to write as many words as you can think of that mean the same or nearly the same as the given word.

1. house

2. friend

3. happy

4. work

5. strong

6. beautiful

7. fear

8. large

9. small

10. build

POST-TEST

PART I

DIRECTIONS: Below is a set of problems. Read each one carefully and then answer the question at the end of each problem in the best way that you can. Write as many solutions to the problem as you can think of.

1. In class today, Robert took a math test and when he got it back, he saw that he had half of the problems wrong. He noticed that his friend John got one hundred and John wanted to know how Robert did on his paper. What might Robert do?

2. James' friend came over his house to play and had on a new shirt. It was the ugliest shirt James had ever seen in his life. His friend said, "How do you like my shirt, James?" What might James say or do?

3. In the cafeteria at school Jenny sat at the table with Susan and Yvonne. Susan always fooled around with her food at the table and got the table reported to the teacher. Jenny and Yvonne did not like being reported and wanted to be able to enjoy their lunch time. What might they do?

4. After school on Tuesday, Robert and his friend Rick went to Oscos to do an errand for Rick's mother. On the way home from the store, Rick pulled two yo-yos out of his pocket and gave one to Robert. Robert did not see Rick pay for them at the check out counter and asked where they came from. Rick said he had stolen them. What might Robert do?

5. Errick's class was going to the Y.M.C.A. to take swimming lessons. All of the children were very excited about it except Errick. He was afraid of water and knew he wouldn't be able to go into the pool with the other children. He didn't want the class to know how freightened he was of water. He didn't want to be embarrassed in front of the class. What might Errick do?

6. Harry left school late today and he was the last one out the door. As he turned the corner to go home, a rock sailed past his head. He looked but didn't see anyone. The next day, his classmate Steven told him that Jerry had thrown the rock at him. Harry was a classmate of Jerry's and also a friend and he was upset that Jerry would throw a rock at him. What might Harry do?

PART II

DIRECTIONS: Below is a list of words. Beside each one you are to write as many words as you can think of that mean the same or nearly the same as the given word.

1. people

2. make

3. look

4. join

5. foolish

6. yell

7. honest

8. hit

9. break

10. fast

WORKSHEET

DIRECTIONS: Put each of the following pairs of words into their four alternative statements.

SAMPLE:

laughing and crying
laughing and no crying
no laughing and crying
no laughing and no crying

work	play	walking	running
love	hate	healthy	sick

DIRECTIONS: Put the letter belonging to the correct answer in the space provided.

1. No girls are boxing champions.
   It therefor follows that:

   a) All boxing champions are girls.
   b) No boxing champions are girls.
   c) All girls are boxing champions.

2. All pepsi-colas are liquid.
   It therefore follows that:

   a) All liquids are Pepsi-Cola.
   b) No liquids are Pepsi-Colas.
   c) No true statement follows when the sentence is reversed.

3. John is taller than Elmer.
   Elmer is taller than Pete.
   It therefore follows that:

   a) John is taller than Pete.
   b) Pete is taller than John.
   c) Elmer is taller than John.

4. Mongolians are Chinese.
   Chinese are Orientals.
   It therefore follows that:

   a) Orientals are Mongolians.
   b) Mongolians are Orientals.
   c) Chinese are Mongolians.

5. Threeps are gings.
   Gings are crubs.
   It therefore follows that:

   a) Crubs are threeps.
   b) Gings are threeps.
   c) Threeps are crubs.

WORKSHEET

Jumping to Conclusions (Manual, Chapter 3, Part Two 3 2 5)

LISTED BELOW ARE SOME EXAMPLES OF REASONING. CLASSIFY EACH AS ONE OF THE FOLLOWING:

a) good reasoning
b) possibly okay
c) possibly unsound
d) really poor reasoning

1. "My father's been reading in the paper that smoking causes cancer, so he says he's going to stop reading the paper."_____

2. "Saturday I got sick after I had a half-gallon of ice cream and a glass of water. Sunday I got sick after I had a half-gallon of ice cream and a glass of water. So tonight, in order to keep from getting sick, I'm going to stay away from water."_____

3. "I heard about this fellow who was killed when he fell out of a tenth story window. Of course, it wasn't the first nine stories he fell that hurt him, but that tenth story really did him in!"_____

4. "I once met a fellow from Finland who played the drums real good. I'll bet all those Finns are great drummers." _____

5. "We don't check every light bulb as it comes off the assembly line, to see if it works, but we spot-check every 5th light bulb, just to get a typical sample."_____

6. "We didn't ask everyone in the school how they felt about the shorter lunch period, but we asked two kids in the hall, and they're probably typical."_____

7. "Whenever I see Elinor, I ask her what she thinks of Joe, and she gets real embarrassed. Boy, does she have a crush on me!"_____

8. "I've been reading that one child out of every five that's born in the world is Chinese. I have three brothers and so I figure that the next baby in our family will probably look pretty Oriental."_____

9. "The part is always greater than the whole."_____

WORKSHEET

Discussion Plan #2 Rules and Freedom (Manuel, Chapter 9, P. 13)

Your entire class is told that it has been chosen to go on a plane trip halfway around the world to India. Your plane has engine trouble over the Pacific and makes a forced landing on a deserted tropical island. The plane crashes and your whole class survives unharmed, but you are the only survivors. You now have to decide how you are going to live on the island.

ANSWER EACH QUESTION.

1. Do you think you can live without rules?

2. If rules are needed, who will make them?

3. If rule-makers are to be selected, according to what rules will they be chosen?

4. Will you have a class meeting to decide about rules and the rule-makers? If so, what will be the rules of the meeting?

5. Before you decide on rules of conduct for everyone, don't you need to decide on rules of procedure? What are rules of procedure?

6. Why is it that right after the American Revolution, it was necessary to hold a Constitutional Convention?

7. Would you do the same thing on your island? First agree upon a constitution?

8. Would all your laws have to agree with your constitution?

9. What rights would be guaranteed to each of you by your constitution?

WORKSHEET

Exercise of Truth (Manuel)

READ THE FOLLOWING SENTENCES AND THEN ASK YOURSELF:

If a sentence has always been TRUE, and MUST BE TRUE, mark it A.

If a sentence has always been TRUE so far, as far as you know, but just might possibly be false some day, mark it B.

If a sentence is usually TRUE, but NOT always, mark it C.

If a sentence is hardly ever TRUE, mark it D.

If a sentence is NEVER, NEVER TRUE, mark it E.

****

1. No squares are circles._____

2. Firemen are brave._____

3. Apples are vegetables._____

4. The sun always rises._____

5. Summers in New Jersey are warm._____

6. All bridges are made of metal._____

7. Cats love milk._____

8. Bricks are made of dried mud._____

9. Fire burns paper._____

10. Two plus one equals eight._____

11. A window can be open and shut at the same time._____

12. A person can be in a room, and also be somewhere else at the same time.____

WORKSHEET

Fools of Chelm: Feitl's Reign

READ EACH OF THE STATEMENTS AND EXPLAIN IF IT IS CONSISTENT. IF IT IS NOT, EXPLAIN WHY IT ISN'T CONSISTENT.

1. Stealing is no longer a crime, except if one steals from a thief.

2. The citizens of Chelm are to pay three quarters of their income to taxes. In addition, every Thursday, the women of Chelm will present to the government two pieces of gefilte fish, a plate of carrot stew, three slices of hallah (bread) and a Sabbath pudding.

3. War is again declared on Gorshkov and Mazelborsht. Chelm will avenge itself for the defeat suffered at the hands of coachmen and butchers.

4. All knives, axes, meat cleavers, forks, as well as penknives and hairpins are confiscated for the use of the army.

5. All men between the ages of eleven and eighty are to train half a day every day in preparation for the coming battle.

6. Chelm is again declared an empire that will eventually take in all the territory between the river San and the river Bug.

7. All foreigners, when meeting a native of Chelm, are to bow seven times, exclaiming "Long live Feitel!".

8. If a Chelmite hits a foreigner and knocks out one of his teeth, the foreigner is to pay his attacker the amount of money he would have had to pay to the dentist to have the tooth extracted.

9. The old holidays are abolished. The anniversary of the day Feitel picked his first lock is henceforth declared a national holiday! Additional holidays are the anniversaries of the days on which Feitel cracked his first safe and made his first holdup. There is to be no more Sabbath.

FOOTNOTES

1 Webster's New World Dictionary of the American Language (New York: The World Publishing Co., 1960), p. 1515.

2 Monroe C. Beardsley, Thinking Straight (New Jersey: Prentice-Hall, Inc., 1975), p. 3.

3 Jerrold R. Coombs, ed., Philosophy of Education 1979: Proceedings of the Thirty-Fifth Annual Meeting of the Philosophy of Education Society (Illinois: Philosophy of Education Society, 1980), p. 3.

4 Ibid.

5 The Board of Regents of the University of the State of New York, Critical Thinking and Reasoning, The Humanities Series (New York: University of the State of New York, 1976), p. 3.

6 Seymour B. Sarason, The Culture of the School and the Problem of Change (Boston: Allyn and Bacon Inc., 1971), p. 153.

7 Ibid., p. 153-154.

8 Ibid., p. 220.

9 John Dewey, Experience and Education, The Kappa Delta Pi Lecture Series (New York: Collier Books, 1938), p. 17.

10 Ibid., p. 44.

11 Ibid., p. 47.

12 Lyle E. Bourne, Roger L. Dominowski and Elizabeth F. Loftus, Cognitive Processes (New Jersey: Prentice-Hall, Inc., 1979), p. 23.

13 Matthew Lipman, Ann Margaret Sharp, and Frederick S. Oscanyan, Philosophy in the Classroom (New Jersey: Universal Diversified Services, Inc., 1977), p. 5.

14 Sarason, p. 77-78.

15 Matthew Lipman and Ann Margaret Sharp, eds., Growing Up With Philosophy (Pennsylvania: Temple University Press, 1978), p. 163.

16 Ibid., p. 162.

17 Ibid., p. 163-164.

18 Matthew Lipman, "Philosophy for Children", Metaphilosophy 7 (January 1976): 18.

19 Ibid., p. 30.

20 Ibid., p. 32.

21 Ibid., p. 31.

22 Ibid.

23 Ibid., p. 32.

24 Ibid.

25 Gareth Matthews, "Thinking in Stories", Thinking (New Jersey: The Institute for the Advancement of Philosophy for Children, 1979): 4.

26 Ibid., p. 4.

27 Lipman et al, Philosophy in the Classroom, p. 5.

28 Gareth B. Matthews, "Philosophy and Children's Literature", Metaphilosophy 7 (January 1976): 9.

29 Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally College Publishing Co., 1963), p. 42.

30 Matthew Lipman and Ann Margaret Sharp et al. Instructional Manual to Accompany Harry Stottlemeier's Discovery (New Jersey: Universal Diversified Services, 1975), p. 6.

31 Ibid., p. 6.

32 Ibid., p. 32.

33 Ibid., p. 33.

34 Ibid.

35 Ibid., 3.1-3.

36 Lipman, P 4 C, p. 48.

37 Lipman, Philosophy in the Classroom, p. 42.

38 Isaac Bashevis Singer. The Fools of Chelm and Their History (New York: Ferrar, Straus and Giroux, 1973), p. 30.

39 Jane Roland Martin, "Thinking and Literacy", Thinking Vol 1, Nos. 3 & 4 (Winter 1979-1980): p. 47.

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