THE RELATIVE EFFECTS OF A BIAS RECOGNITION
PROGRAM ON THE BIAS PERCEPTION LEVEL
OF EIGHTH YEAR SOCIAL STUDIES STUDENTS

by

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Chapter I

INTRODUCTION AND JUSTIFICATION

Social studies skills have received much attention in recent years, and have become an integral facet of social studies. Yet, skills, values and substantive knowledge overlap. Separating one from the other is often a difficult task. Student readiness for skills teaching is also very important. Some children develop this readiness for skills earlier than others. Richard Gross, a long time leader in social studies education, comments on this:

... the overlap between skills, attitudes and knowledge is substantial. Usually emotional values are associated with what has been learned, and in turn, attitudes have bias in knowledge. For example, the student interested in studying pollution usually has some attitudes and skills associated with this subject. Emotional experiences may have a striking impact on the skills development of all individuals; perhaps secure, stable students can most effectively develop higher level thinking skills.

Skills, for the purpose of this study, were operationally defined as the ability to perform a given task successfully. In this study the task was that of bias recognition. This skill was a cognitive, analytical one.

Skills, if not being defined or taught to the satisfaction of all social studies educators, are at least receiving some attention. The National Council of Social Studies has, in the last decade,

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published one bulletin and one yearbook devoted to skills. These two remain an almost exclusive source of information on social studies skills. The National Council of Social Studies yearbook, published in 1963, is expository, treating skills as a special area of study. In 1971, bulletin number 15 was introduced devoted to questioning and testing techniques as related to skills development. These two remain the most definitive works on the subject. Very few research studies have been done examining skills development or skills areas. The reason for this lack of research is probably without real justification.

Social studies skills and skills development are not new educational goals or phenomena. As early as the mid 1700's, geography was introduced into American education. Concomitant to the study of geography were map and globe skills. These skills remain a facet of the curriculum. Very few other skills areas have been introduced. The accountability movement has, in recent years, given some rise to increased interest in the basic skills. In turn, this has intensified pressure on educators for observable accomplishments. Skills, too, are tied with behavioral objectives. Many educators feel public pressure is forcing them to set objectives and fulfill them, teaching usable measurable skills while doing so. Social studies has followed other content areas in the development of measurable skills areas. However, a relatively small amount of scholarly writing has focused on skills and skills measurement, although a number of social studies educators have written treatises mentioning skills.

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The number of experimental or descriptive research or evaluation studies are still fewer in number.

Given this background, it was the expressed purpose of this study to attempt to test the significance of a limited skills program on an eighth grade level. The program was organized so as to maximize instructional effort and maintain student interest. It is the general philosophy of this paper that an attempt was needed to test the strength of a limited skills-oriented program under field conditions. Certainly, little experimental work has been done in the area of actually developing skills programs that are designed to teach skills and measure the success encountered.

Bias recognition is recognized in the literature to be an important skills area. Very little has been done with bias recognition. Few studies, Chapter 2 will show, exist in bias recognition, and fewer programs have been set up in public schools to deal with it. It is the opinion of this researcher that students should not complete their education without having some idea of bias, its nature and recognition. Many students and adults have proven vulnerable to prejudice in their environments. It is felt that programs such as the one designed here can aid and add to a student's critical acumen and make him a more sensitive individual. The need exists; this program may show that the need can be met.

THE PROBLEM

Statement of the Problem

This study was concerned with examining the extent to which a bias recognition skills program would act to effect the comprehension
and internalization of this skills area by eighth grade social studies students. The specific bias recognition areas involved were: racial, religious, political, sexist and ethnocentric. These skills areas were tested and treated; the total outcome for the combined five areas was studied for significance as well as each area studied independently. In addition, one of the major focuses of this study was to examine if the program explained in this study was an effective one for teaching bias recognition.

Rationale and Defense of the Program

Before the treatment could be effectively designed, several questions had to be answered. First, was the teaching of bias recognition really an important feature of social studies and, if so, how could it be more effectively accomplished? The program, in addition, had to meet the needs of the optimum number of students with the greatest amount of instructional competence. An important part of this process revolved around the classroom teacher. Teachers selected were given in-service credit for their participation, one day of extra pay for the teachers in the experimental group and one-half day of pay for teachers in the comparison group. Teachers in the experimental group were also given a syllabus of the program with basic instruction in teaching bias recognition. The difficult task, however, was the designing and implementation of the treatment itself.

When constructing a program intended to teach bias recognition to eighth grade students, one must initially understand the importance of instruction in this area. The student does encounter bias everywhere
in his day-to-day life. He also has personal biases that color his attitudes and perceptions. Dan B. Fleming, a social studies educator, has said that everyone has biases and tends to go toward or approve of them. It should be the goal of a media bias recognition program, according to Fleming, to expose students to other biases.³

Fleming also points out that bias recognition should be the number one goal of social studies instruction. He feels such a program teaches both skill in evaluation of media materials, as well as critical thinking skills.⁴ With these goals in mind, the design of the program was begun.

The design itself had little to rely upon in the way of previous studies. A review of literature showed that none had been attempted. The program then would have to depend on eclectic selections of instructional entities gathered largely from experience. Ideas were selected from the works of social studies educators in other skills areas. The method of instruction was to be directed inquiry with varied learning activities. Student involvement was stressed. Student interaction was also considered to be important. The idea of students learning by doing, interacting with one another and engaging in teaching themselves as well as fellow students was felt to be a powerful method of instruction. The goal of this process was the student learning to depend on his own judgment to recognize bias, not rely exclusively on a

3Opinion expressed by Dan B. Fleming in an address ("did Richard Get a Bad Rap? Coping with Media Bias: Methods and Materials For The Social Studies Teacher") at Virginia Beach (Va.), National Council For The Social Studies Regional Conference, April, 1975.

⁴Ibid.
His teacher would not follow him into life when he would confront bias on his own. It should be remembered, however, that no precedent existed for using these instructional methods in a bias recognition program, since such a program had never been accomplished.

The design of the treatment included twelve steps, ten of them instructional. The program began and ended with a test, a pre and post test. The test given initially was identical to the test given at the conclusion. Instruction began with a series of definitions. The object was to familiarize the student with a working vocabulary to be used throughout the program. The student would have a lexical base from which to operate.

After this initiating step, the next two instructional processes involved the use of media sources. It was felt that the media would provide a rich source of material that would reflect bias. No texts were used in these two steps and, in fact, in the entire program. After reviewing much in the way of textual offerings, it was felt that none would provide the raw material necessary to student comprehension of bias as would newspapers and magazines. Fleming said of using this source, "Teachers are always attempting to find material when the sources most available, newspapers and magazines, are the best of all."5

The next four components of the program provided a continual building and refining of bias recognition skills. Students were asked to create bias and non-bias material. Students participated in debates, wrote essays and, in general, began to participate in activities designed to create an internalization of the concepts involved in bias recognition.

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5 Ibid.
In this section of the program the students gathered the sophistication necessary to sharpen their skills. As a culmination, the student again went to media sources to work with headlines and accompanying stories. The student, at this point, had an opportunity to use his enhanced discriminatory knowledge to find if the headline was related to the story and if the story contained bias, to what degree and what biases were reflected.

Quizzes were also included in the program. These quizzes were designed to instruct, rather than for grading purposes. The quizzes were not difficult, structurally or academically. After the quizzes were completed, student and teacher were to discuss the material and attempt to correct mistaken impressions held by the student. A more detailed outline and description of the treatment is included in Chapter 3. This entire program was to run approximately two and one half to three weeks, depending on individual class speed at accomplishing each instructional entity.

It was necessary for much new ground to be broken when designing this instructional unit. Little was available that had been successfully used in other programs. The design had to include flexibility, yet be so structured as to optimize student comprehension. The teachers were very important to the overall success of the program. The instructors in the experimental group were given brief training to acquaint them with how to teach the program. This will be described in Chapter 3. Obviously many problems were present. These had to be met and successfully overcome. Results of this success are reported in Chapter 4.
Hypotheses

Hypotheses were formulated for each of the five types of bias and its accompanying recognition: racial, religious, political, sexist and ethnocentric. In addition, hypotheses were set to test the total program. Two hypotheses were formulated for each area, one alternate and one null. The hypotheses were tested using analysis of covariance.

Since each bias area was tested separately as well as in combination, separate hypotheses were formulated for each. The outcomes of the study were divided into the relative effects of the program on both the experimental and control subjects. Additional two-way analyses were made in two of the bias areas, racial and sexist. Black and white students were compared to determine if members of either racial group recognized bias more readily. Male and female students were also compared to determine if either recognized bias more readily. In using these two-way analyses it was possible to determine if either grouping had special sensitivity to racial or sexist bias or if bias recognition was generalized through the entire sample and thus the eighth grade population of Roanoke City schools.

Racial bias. The null hypothesis states: There is no significant difference in racial bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

The alternate hypothesis states: There is a significant difference in racial bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.
Racial bias: Two-way classification analysis. The null hypothesis for race and group and by race states: There is no significant difference in racial bias recognition for these four groups of students: black students receiving the treatment, white students receiving the treatment, black students not receiving the treatment, and white students not receiving the treatment.

The alternate hypothesis for race and group states: There is a significant difference in racial bias recognition for these four groups of students: black students receiving the treatment, white students receiving the treatment, black students not receiving the treatment, and white students not receiving the treatment.

The alternate hypothesis for race states: There is a significant difference in racial bias recognition between black and white students, whether treated or untreated.

Sexist bias. The null hypothesis states: There is no significant difference in sexist bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

The alternate hypothesis states: There is a significant difference in sexist bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

Sexist bias: Two-way classification analysis. The null hypothesis for sex and group and sex states: There is no significant difference in sexist bias recognition for these four groups of students: female students receiving the treatment, male students receiving the treatment, female students not receiving the treatment, and male students
not receiving the treatment.

The alternate hypothesis for sex and group states: There is a significant difference in sexist bias recognition for these four groups of students: female students receiving the treatment, male students receiving the treatment, female students not receiving the treatment and male students not receiving the treatment.

The alternate hypothesis for sex states: There is a significant difference in sexist bias recognition between female and male students, whether treated or untreated.

Religious bias. The null hypothesis states: There is no significant difference in religious bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

The alternate hypothesis states: There is a significant difference in religious bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

Political bias. The null hypothesis states: There is no significant difference in political bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

The alternate hypothesis states: There is a significant difference in political bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

Ethnocentric bias. The null hypothesis states: There is no significant difference in ethnocentric bias recognition for students receiving a bias recognition program compared to those not receiving this
treatment.

The alternate hypothesis states: There is a significant difference in ethnocentric bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

**Total bias area.** The null hypothesis states: There is no significant difference in total bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

The alternate hypothesis states: There is a significant difference in total bias recognition for students receiving a bias recognition program compared to those not receiving this treatment.

**The Decision Rule**

The alpha level of significance for the study was .05 using analysis of covariance, with the covariant being the pretest. If the F ratio was greater than that found at the level, p less than .05, the test hypothesis was rejected and the alternate hypothesis accepted.

**Delimitations**

1. This study measured the effectiveness of the program during a given time period, approximately two and one half to three weeks. No effort was made to test long-term retention rate.

2. This study was concerned with a very limited skills area, that of bias recognition. No effort was made to go into areas beyond these limitations.

3. This study was concerned with eighth grade students in an urban setting. No generalizations should be made to other grade levels or geographic settings.
4. Student reading levels were taken into consideration within limitations imposed by the sampling process. Teachers were asked to eliminate classes composed of either advanced or deficient readers. The pre and posttests were read to classes as a further aid. Much of the program included group work and little strictly individual reading activities.

5. Only five bias areas were examined. Many other bias areas exist, but the five selected were felt to be major areas of importance in social studies.

DEFINITION OF TERMS

For the purpose of this study, certain terms will be operationally defined.

Bias Recognition Program

A bias recognition program refers to social studies skills program emphasizing racial, religious, sexist, political and ethnocentric bias.

Bias Perception Level

Bias perception level refers to the amount of measured success students demonstrate in bias recognition testing.

Social Studies Skill

Social studies skill refers to an area of attained achievement or proficiency in social studies.

Bias

Bias refers to prejudice in favor of or against an organized or
disorganized human configuration where the prejudice is based on emotion or a distortion of fact. The bias areas examined are: racial, religious, sexist, political and ethnocentric.

Directed Inquiry

Directed inquiry refers to an instructional method that encourages students, under the guidance of a competent instructor, to interact with ideas and materials to develop conclusions through individual and group consensus thinking.

ORGANIZATION OF THE STUDY

Chapter 1 has included an introduction, statement of the problem, rationale and defense of the treatment, hypotheses, decision rule, delimitations of the study and definition of terms.

Chapter 2 describes related literature and research.

Chapter 3 describes methods and procedures that will be followed in data collection.

Chapter 4 describes the results of the study with statistical analysis and interpretation of data.

Chapter 5 includes a summary, conclusions reached, implications and recommendations.
Chapter 2

REVIEW OF THE LITERATURE

Rationale

Generally, social studies skills have been often ignored and given little written or spoken attention by social studies educators. Bias recognition, as a skill, has also been virtually ignored. Much has been written in the social sciences about one type of bias or another. Nothing has been done in proposing ways to teach the recognition of bias and testing these results.

Much difficulty was encountered in finding literature on social studies skills or bias recognition. Studies on bias recognition either do not exist, are included in works on general social studies skills or are too obscure to be found. Literature on skills is somewhat easier to locate, though only three definitive works, which will be reviewed later in this chapter, have been published devoted exclusively to skills. The Social Science Consortium of Boulder, Colorado, an organization devoted to social studies, has nothing on social studies skills. The ERIC information retrieval system has little on skills, as does University Microfilms. The National Council of Social Studies does provide one source of information. Given the difficulties in acquiring information and the limited amount of this information, the review of the literature will be divided into three sections: 1) communication skills, skills areas of importance when designing a bias recognition program. 2) research and evaluation projects and testing involving...
skills. 3) bias recognition as a skill. The latter, research has shown, will be limited in volume.

It was decided that a review of skills areas related to bias recognition should be included as a facet of the literature review. Skills are often grouped together, as this review will show. Bias recognition is either included within a group of skills or considered to be a critical thinking skill. Some scholars simply do not consider bias recognition as a separate area of concern. Of course, one major aspect of this study is to show the practicality and utility of providing skills instruction in social studies, as well as the importance of bias recognition as an instructional entity. Given these two major goals, it was felt that a good starting point would be this review of scholarly efforts in the field of social studies skills not devoted specifically to bias recognition, but areas related to and contributory to the study of bias recognition.

**Communication Skills**

Scholars have, for decades, explored methods of implementing skills in social sciences. C. O. Mathews, a somewhat obscure writer devoted time to categorizing some of these skills. Mathews, in the late 1920's, attempted to gauge individual student attitudes toward social sciences and accompanying map and graphing skills areas. Mathews presented descriptive statistical tables of an unsophisticated nature to verify some of his contentions. In the appendix of his work, he included test questions about the procedures he has discussed. Mathews's basic thesis was that non-verbal materials needed an introduction into the social studies. His feeling was that this would act to systematize the teaching going on in schools and better prepare students for
understanding quantitative factors in the outside world. While Mathews was writing several decades before social studies skills began to receive any attention, he led a vanguard in advocating graph, globe and map materials introduced into every phase of social studies education beginning at the early grade levels. Though Mathews's skills were not of a strictly communications nature, his early work in the area of skills led to greater attention and development of the entire skills area by social studies educators.

Writing thirty years after Mathews, Samuel Jones was interested in the skill of drawing inferences from generalizations. This, Jones stated to be a critical skill, a skill necessary in understanding the arguments presented by any speaker, debater, or politician. Without this analysis skill, the listener is deprived of the force of the arguments being presented. Jones argued that students should be taught to become more sensitive to the worth of an argument and an interpretation of that worth. His mode of promoting this sensitivity was by having a background knowledge of the subject under discussion. Concomitant to this, the student has an opportunity to practice two other skills, the recognition of central ideas and the recognition of facts that support their arguments.

Henry Bragdon, a scholar dealing with another communications skill, writing, shared Jones's view that writing and listening skills

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are of paramount importance. Bragdon also stated that writing is critical to social studies.

English is not a subject, like physics or geography or Latin. It is a universal skill, and every teacher of academic subjects should be in some degree a teacher of English.

One of the English teacher's strongest allies is the history teacher. There are all sorts of ways in which the history teacher can and should give training in writing. He may assign research papers, book reports, parts of documents and formal arguments in matters of controversy. And his every test should require written answers. 3

Bragdon saw writing as a skills area tied with social studies, not necessarily as a collection of individual skills, each requiring different functions. It should be remembered that the article was written before skills were considered in component form. 4

In 1963, the National Council of Social Studies published what became the only volume length work in skills for the next eight to ten years. The yearbook is the classic in a field of social studies that remains to be developed. The rationale behind the publication of the yearbook presented the social studies educator's desire to offer a systematized, more scientific approach to his subject. It should be remembered that during the early sixties all disciplines were in the process of being enriched as part of a national effort to excel in academics, especially the so-called hard disciplines of math and science.

The Yearbook lists these skills as being of importance:


4Ibid.
1. Skills for democratic citizenship in the 1960's.
2. The psychology of skill development.
3. The nature of critical thinking and its application in the social studies.
4. Locating and gathering information.
5. Organizing and evaluating information.
6. Reading.
7. Writing.
8. Speaking and Listening.
9. Developing a sense of time and chronology.
10. Developing a sense of place and space.
11. Interpreting material presented in graphic form.
12. Developing competence in group participation and human relations.
13. Programmed instruction and the teaching of social studies skills.
15. Developing a program for the affective learning of skills.5

The skills, it can easily be seen, are very inclusive. There were a great deal of overlapping and some categories were rather ambiguous. Yet, the ambition of the yearbook and its comprehensiveness made it a noted and important effort. The two major skills areas covered were cognitive and social. Methods of measurement and evaluation were included as well as methods of setting up a successful program in skills. Skills were also discussed as to their exact nature, purposes and end results. Eunice Johns and Dorothy McClure Fraser explored this in the yearbook when writing of skills as an instructional entity.

Helping young people develop and use skills effectively is one of the central purposes of social studies instruction. Indeed, without an adequate command of skills, it is doubtful that students can gain the insights concerning their society or develop the habits of intellectual and social behavior that constitute the ultimate goals of the social studies program. Skills are

tools for learning, both in and out of school. The student who develops a command of social studies skills during his school years and carries these skills into the adult years has laid a firm basis for continued learning throughout his life.6

In short, the goal of skills instruction should be to learn how to learn. The yearbook itself is a reservoir of information on how to most effectively accomplish this instructional goal. This yearbook, in fact, provided American social studies scholars with the only major work published during the decade of the sixties. This volume provided a model that would be built upon later.7

James H. McGoldrick, in a dialogue published in the same year as the National Council of Social Studies yearbook, gave arguments in favor of increasing the possible methods of teaching improved research techniques. The skill he emphasized was increased perception of written and spoken material. Basically, he abhorred student copying of material. McGoldrick would, as remedy to this, gather students together and instruct in proper methods.

... We must recognize that in the order of events, toddling comes first, then walking, then running. So, also, when teaching research skills our textbook problems constitute the toddling stage; our goal is the running stage during which we can pose real problems for our students with some hope that they can be successfully completed. Before that however, we must pass through the walking stage during which we expand the research horizon of our charges. The problem, then is to move our students from the toddling stage - the textbook problem into the walking

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7Carpenter, op. cit.
stage and ultimately, into the running stage.\(^8\)

McGoldrick's research-oriented work offered an important contribution to skills knowledge. It provided a focusing of ideas on a specific topic, that of research as a skill. Yet, McGoldrick did not develop his discussion to the point of giving much-needed attention to component skills involved in research.

John Ohles, also writing on communication skills, said:

"Discussion may lead to understandings impossible to come by in the superficiality of a textbook. It should find pupils mentally engaged in involvement in the search for answers to: What would you have done, felt, seen, believed, experienced, understood? ... It is this involvement with a particular aspect of learning that differentiates classroom discussion from the politicking of a town meeting or the aimlessness of a bull session."\(^9\)

Ohles attempted to lump together many types of skills under the heading of discussion. His skills crossed a wide spectrum from social interaction skills to developing ability in public speaking. His work was well-constructed, though somewhat over-generalized.\(^10\)

Kenneth Hoover, in line with Ohles, wrote of debate as a teaching technique. He believed that debate teaches open-mindedness in both debater and listener. Debate also teaches the listener skills in

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\(^10\)Ibid.
bias recognition and recognizing central ideas. Hoover offered debate as a forceful teaching method enabling the student to acquire and develop communication skills. This skill perhaps overlaps with skills more applicable to the language arts. Hoover did include debate skills in social studies. He supported it as a very powerful learning tool.\footnote{Kenneth H. Hoover, "The Debate: Valid Teaching Method?", Clearing House, 40: 232-235, December, 1965, cited by Richard E. Gross, Walter E. McPhie, and Jack R. Fraenkel (eds.), Teaching the Social Studies What, Why, and How (Pennsylvania: International Textbook Co., 1969), pps. 294-296.} Debate skills, it might be noted, can provide a very useful instructional technique when attempting to develop in students a capacity to recognize bias.

Walter McPhie wrote on student reports as a social studies skill. McPhie began his article by attacking reports as often interpreted and carried out by teachers. He outlined what he saw as the proper procedures to be initiated to effect proper and intellectually rewarding student reports. Facets of McPhie's article pertinent to report-making in a bias recognition program included:

1. The teacher should point the students in a general direction. He or she should help them develop specific goals. The students should know what is required of them and what information should be included in the report.

2. The teacher should help the student to locate information that would be of help to him.

3. The teacher should help the student synthesize information.

Report-making is viewed as a critical skill, one that requires
preparation and time in materialization if it is to be rewarding and worthwhile.\textsuperscript{12}

James Lindberg had as his skill concern, problem-solving. His methods involved three distinct steps: 1) Stating the problem. 2) Forming tentative explanations. 3) Verifying tentative explanations. Lindberg applied his problem-solving techniques to mostly geographic situations. His theory first selected and described a particular problem, then attempted to find a workable solution, and tested the solution by graphs, maps or observation. Lindberg's skills were of a totally cognitive nature.\textsuperscript{13}

Reading skills, another series of skills areas that have an important role in social studies were the forte of John O'Connor. He supported reading skills as a necessary foundation for all other learning. Concomitant with these skills are listening skills. The desire of this scholar was to have students acquire the skill to find the central idea of written and spoken material. O'Connor's skills were strictly on a cognitive level. He supported students being able to read, skim material, and reason from this. O'Connor was also interested in the needs of the academically slower student. His major concern was


\textsuperscript{14}Ibid.
for the academically slower learners and readers. He found that the newer social studies materials failed to take this student into account.15

In a closely related work written as an instructional booklet for disadvantaged children, Daniel Selakovich emphasized kindred areas. His skills were also primarily of a communications nature. They included reading, speaking, the ability to listen, and the ability to write.16 Selakovich also emphasized critical thinking skills. He urged that disadvantaged students be led toward the overall goal of critical thinking via the careful teaching of the four component skills he emphasized. These areas should then be emphasized to help the student advance academically. It should also be noted that Selakovich's skills areas were basic skills or survival skills of a verbal nature. He would initially use his four basic skills to lay the foundation for his implementation of various critical thinking skills which were simply a more complex addition to the beginning skills.17

John V. Michaelis is a prominent social studies educator who gave, in a brief article of inquiry skills, various methods to teach these skills. Michaelis's skills and methods of instruction included: recalling, observing, comparing, classifying information, defining,  


17Ibid., pps. 148-163.
inferring, generalizing, interpreting, predicting, hypothesizing, analyzing, synthesizing and evaluation. Michaelis wrote of skills and skill-oriented studies: "Several studies are needed to identify uses of the proposed set of inquiry processes. Of primary importance is an analysis to determine the extent to which the processes are used in other areas of the curriculum".

Michaelis wished social studies skills to involve the scientific process of setting and testing hypotheses. The goal of this training was transferability to other disciplines and to non-skills social studies instruction. Michaelis's article is parallel in structure to the later 1971 National Council of Social Studies bulletin on skills.

Barry Beyer, in another work devoted to the inquiry teaching method, includes a chapter on skills. Beyer intertwined skills and the inquiry method to form what appears to be a very strong teaching and learning curriculum. In his work, Beyer emphasized the following skills: assembling evidence, arranging evidence, analyzing evidence, developing a conclusion, and applying the conclusion to new data. Beyer's skills were so general that they might be considered to be broad skills areas rather than specific skills. Bias, as an area of concern was not discussed. Beyer's book remains one that gives an insight into skills coupled with an inquiry teaching approach.

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19 Ibid., p. 53.

Lester Brown and Ellen Cook, editors of another yearbook by the National Council of Social Studies, devoted exclusively to skills, presented various approaches to testing for skills. The table of contents listed many areas of major concern. One of these areas was bias recognition.21

This bulletin remains one of the best in the area of skills. Example questions are used to illustrate each category. Testing for skills is an important part of this work. Each skills area is well-defined and illustrated. There is an effort to separate each skills area from others and establish sharp delineations. This is done well, with clarity and within the guidelines of measurement and testing techniques. However, the primary purpose of the bulletin is not to promote the example questions but to illustrate questioning techniques when teaching skills areas.22

Michael Hawkins and Elmer Williams, in a brief article for the University of Georgia, developed a program that was both skills and systems oriented. The major skill involved in this approach was the analysis of pictures by upper grade elementary school children. This program of drawing inferences from photographs and drawings was inquiry oriented, yet structured in important aspects. The authors had achievement goals and performance objects. They clearly wished to achieve the analysis of data through photographs. Clearly this was an important skill, one that could develop in sophistication and lead to learning on


22Ibid.
a higher cognitive level. The authors, then, considered such a skill as a potential building block for other skills. In addition, his program made an attempt to teach a skill while using the inquiry teaching approach, not the traditional methods often associated with skills teaching.23

Richard E. Gross and June R. Chapin provided another definitive work on skills. Their skills were all-inclusive and somewhat general. They included among their skills areas the categories of reading, listening and speaking, viewing skills, written language, time-space orientation, inquiry, data collection, analysis and hypothesis testing.24 Perhaps one of the most interesting facets of their manner was the presentation of various teaching techniques to implement skills instruction. Gross and Chapin argued that the most effective procedures involved the use of case studies, simulation games and role-playing.25 This work is the only volume-length work devoted exclusively to skills to be found, other than the 1963 yearbook and 1971 bulletin of the National Council of Social Studies. The volume, unlike the National Council of Social Studies works, emphasizes basic skills such as listening, reading and writing. Gross and Chapin chose to enlarge on these skills, fit them into a social studies format and call them social studies skills. This work was closely intertwined with instructional techniques. It provided a good background informational


25Ibid.
text for classroom teachers, supervisors, or school system personnel wishing to begin a general skills program. Obviously this section of the literature review shows skills as a neglected area of study. Two major works surface, these two are suited to the needs of both the scholar and the classroom teacher. These two National Council of Social Studies works, one published in 1963, and the other in 1971, provide a majority of written material directly related to social studies. The work by Richard Gross and June Chapin rounds out the published works devoted to skills. Various articles have been published on communication skills. Many have been reviewed here. The next section will include both research studies involving skills and approaches to skills testing.

Research Studies and Testing in Skills

While research studies or actual testing of social studies skills areas is rather limited, the 1965 yearbook of the National Council of Social Studies was devoted to testing and evaluation. A wide variety of types of tests were presented, both objective and subjective, some testing for skills and others for information. Standardized tests are included in a concluding chapter. The yearbook itself can be used by social studies educators who wish to improve the validity and reliability of their tests. Certainly one will find in this yearbook that nothing substantial is done with skills in standardized testing.


26Ibid.
Howard R. Anderson, in an article from the 1965 yearbook, that borrows heavily from the 1963 yearbook, attempted to develop proper evaluation and testing techniques for what he terms basic social studies skills. His skills included rather unsophisticated areas interpreting pictures, charts, graphs, tables, maps and globes, and understanding time and chronology. These skills are of an analysis nature. They may be useful and utilitarian and are very probably the foundations upon which other, more sophisticated, critical thinking skills are built. This article itself appeared to be somewhat general in its approach, though examples of test items and how to score them are presented. It appears that Anderson's operational definition of skills was somewhat restrictive.28

Fleming wrote, in a monograph devoted to standardized testing, on the skills areas of testing. He made special note of two skills tests, one devoted to newspaper tests and the other to the Watson-Glaser critical thinking appraisal. The Watson-Glaser test appears to be progressive in that an attempt is made to measure critical thinking skills. However, Fleming noted certain difficulties:

The Watson-Glaser test consists of one hundred items centered around five areas: drawing inferences from a summary of facts, recognizing assumptions implied by a statement, reasoning logically by interpretation, and discriminating between strong and weak arguments. The test is unique in its efforts to measure critical thinking. The test is generally too difficult for the poorer reader and the instructions are somewhat difficult to understand. The test seems to have value in determining logical thinking.

for a limited advanced clientele.\(^9\)

Obviously the attempts to initiate a suitable standardized social studies skills test have been relatively unsuccessful. Often skills are limited to very basic ones, when, and if, tested. It would appear, while skills areas have been discussed by some scholars, very few have attempted research or evaluative studies. Thus, very much of what has been hypothesized in the area of social studies skills remains untested.

A limited number of social studies skills research projects have been attempted. One such project that was completed involved Tazewell County, Virginia public schools. This social studies skills project evaluated the instruction of many social studies skills areas. This program ran for one continuous academic year, 1973-1974. The program featured three grade levels of student subjects. The level considered were seven-eight, nine-ten, and eleven-twelve. Each level category contained both control and experimental groups. Both the control and experimental groups were pre-tested. Following the pre-test procedure, the experimental group began receiving the treatment. At the conclusion of the school year, both groups received the post test.

The skills areas covered in this project were varied, yet specific in delimited outline. The seventh and eighth grade categories were: 1) fact or opinion, 2) time relationships, 3) classifying information, 4) map reading, 5) graph interpretation, 6) cartoon interpretation, 7) identifying issues, 8) validity of sources, 9) data

consistency, and 10) supporting statements.\textsuperscript{30}

The ninth and tenth grade categories included application of principles and main theme as two added skills. Classifying information and line relationship were excluded. The eleventh and twelfth grade skill groupings were similar to the other two. It included eleven categories with an inclusion of relevant facts as a category and the re-inclusion of time relationships. Each category was tested as well as reported. An item analysis was also done for each individual question. The statistical analysis completed for this study was descriptive in nature, and no consistent improvement in the experimental group that would have pointed to the success of the study was found.\textsuperscript{31}

This study was one of the few that had been done in skills. It not only pointed toward the need for greater skills instruction, but also provided many unanswered questions that could be explored by further research. This work provided an important impetus for the bias recognition program that is the concern of this paper.

\textit{Bias Recognition As A Skill}

While much has been written about bias and prejudice, little has been written on bias recognition as a separate skill, even though most American school children and more adults than probably realized cannot ferret out bias when it confronts them. Many Americans are easy prey of subtle bias. Why then, one must wonder, has not more been done


\textsuperscript{31}Ibid., pps. 6-18.
toward systematizing bias recognition, especially in the social studies where it can be most easily handled? This study has found but two sources that include bias recognition as a skill.

The first article by Hymen Chausow was entitled "Evaluation of Critical Thinking in the Social Studies". Chausow was interested in the teaching of critical thinking as a skills area. Bias recognition was given as a component skill in this skills area. Quoting from the American Council on Education, Chausow said of bias recognition:

To recognize bias and emotional factors in a presentation.

The validity of any presentation should depend only upon such factors as the soundness of its reasoning and its factual basis. Many presentations, however, neglect reason and fact and substitute highly colored words or appeals to prejudice. This practice is frequently an admission that there is very little substance supporting the presentation.

Since bias refers to opinions or attitudes based on prejudice and preconceptions rather than upon fact and reason, it bears no constant relation to truth ... To detect bias is not to impute dishonesty, for the many biases are unconscious. Recognizing bias, conscious or not, is the important thing. Awareness of the part one's own biases may play in the process of analysis and decision is also an important factor in critical thinking.32

Chausow used a variety of techniques to evaluate critical thinking skills. Objective and subjective tests were both used. The article was useful to those interested in critical thinking skills.

The 1971 bulletin of the National Council of Social Studies contained a brief, two page expose on bias recognition as a skills area. All that was included was a two paragraph explanation of bias recognition, and an example of a test containing biased and non-biased questions.

The bulletin said of bias recognition:

Nearly everywhere and almost all the time all of use are confronted with statements which are exaggerated or twisted or biased because of the emotional attitude of the person who makes them. Sometimes we ourselves make statements which are more the result of our emotional complexes than of our reasoning. Sometimes emotionally toned statements are easy to detect and sometimes they are so subtle that it is hard to identify them as such.

Summary

While much has been written on skills or skill-related areas, little has been done with actual testing of the effectiveness of skills instruction. Obviously more work has to be done in the area. The difficulties of effecting a totally testable skills program can be extreme.

Skills have long existed as an integral part of social studies. Maps and map skills have often been considered as paramount to successful geography instruction. Developing critical thinking for better citizenship has many times been an expressed goal of civics courses. Yet, the specific enumeration of definable categories is a fairly recent phenomenon. It is the opinion of this researcher that more experimental studies need to be done in connection with a limited number of skills areas. In keeping with this philosophy, this study will attempt to implement such a program, in one area given little attention, bias recognition.

Perhaps the review of the literature reveals a major insight into the lack of measureable studies or programs. Many words have been written, but little testing done. If skills are to become an acceptable entity in social studies, their worth will have to be proven. Weber

and Fleming concluded that one possible corrective measure that might aid the effectiveness of skills instruction would be to begin such instruction earlier in a child's education. Perhaps this is one of many possible solutions. Another might be to intensify skills instruction. It will be the purpose of this paper to test this process of intensified instruction. The skills instruction area of bias recognition has been selected, because it has been neglected, yet is worthy of attention. This is especially true if it is a goal of social studies to aid the student in developing critical sensitivity to distortions of truth that will be present in his environment throughout his life. Finally, it should be noted and reiterated that the lack of testable outcomes in the skills areas is not exclusively the fault of scholars and educators. The blame might be placed on the difficulty of testing a truly viable skills program in the uncontrolled environment of a classroom. This problem is not easily overcome. Yet, it is felt that attempts should be made to work within the existing public school framework. This study will be a continuation of the feasibility and utility of teaching skills in public schools.
Chapter 3

PROCEDURES

The Design

This study measured the independent variable of a bias recognition skills program and its effect on student acquisition and conceptualization of these skills. The design itself was a pretest, posttest control group design. The design may be illustrated by this model.

<table>
<thead>
<tr>
<th>Pretest</th>
<th>Independent Variable</th>
<th>Posttest</th>
</tr>
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<tbody>
<tr>
<td>E</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

The E represented the experimental group that received a pretest, the treatment and a posttest. The C represented the control group that received a pretest, no treatment and a posttest. In addition, after the data was collected, a two-way analysis was used to measure the sexist bias recognition ability of male and female students and the racial bias recognition ability of black and white students. This extra facet of the study required no new design, in and of itself, and was simple in structure.

Sampling

In the type of design used, as well as the setting in which it was used, sampling procedures can be both important and exceedingly difficult to affect. They were these:

1. The population included all junior high school students
enrolled in grade eight in the Roanoke, Virginia City public schools. This study was accomplished in cooperation with the Roanoke City public school system and especially social studies supervisory personnel.

2. Sampling was not done from the student population in general. Intact classes or cluster samples were used as experimental units. This was to prevent the disruption of classes that were already in session in the junior high schools.

3. The sampling procedure began with individual junior high schools. All junior high schools were used in the study. Three junior high schools had one experimental class each and the other three junior high schools had one control class each. In no case did any one junior high school contain both experimental and control groups. This procedure acted to prevent any interaction between the selection and the treatment. Control and experimental groups had less of an opportunity to discuss the treatment among themselves, since they were not at the same schools. One junior high school, because of scheduling procedures, was unavailable for use in the experimental group. It was assigned to the control group. The others were then assigned to either control or experimental groups.

The schools and subjects remained essentially anonymous for purposes of this study, except, to reiterate, that all six Roanoke City junior high schools contributed a class to the study.

4. After junior high schools were assigned to either control or experimental areas, teachers were selected with the help of Roanoke City social studies supervisory personnel. Permission of school principals to use a school in the study was also obtained. Each teacher then selected a class for use in the study. The teacher was asked to pick a
class with racial and sexist integration. The cooperating and active interest of these teaching professionals was critical to the outcome of the study.

5. There were approximately 69 subjects in the experimental group and 68 subjects in the control group sections. All subjects taking either pre or posttests were included in descriptive analysis of data. However, only those both pre and posttested were used in the analysis of covariance. The number of subjects used numbered 57 in the control group and 60 in the experimental group sections.

In summary, it is felt that the procedures outlined here were suitable to give the study the basic requirements necessary to test the hypotheses. The statistics used were both descriptive and inferential to enable the data to be analyzed for optimum information.

INSTRUMENTATION

Social Studies Skills Test

The measurement used was a social studies bias recognition test. The bias areas that were covered were: racial, religious, sexist, political and ethnocentric. The test was given to all subjects whether in control or experimental groups. After an approximate two and one half to three weeks period, during which the treatment was administered to the experimental group, the test was re-administered to both the control and experimental groups. The control section received no treatment during this time period. There was concern that some sensitizing effect might take place. However, this should have been randomized across both groups and accounted for in the use of analysis of covariance, which accounts for initial differences in pretest scores.
The test itself consisted of thirty-four items divided into five sections. The beginning section was based on recognizing biased statements. It included eight items. Each item was scored bias or non-bias. The second section of the test was recognizing bias in written or spoken material. The format of this section featured answering questions about a paragraph to determine if bias existed, the degree of such or the target of the bias. This section included thirteen questions with each question having three possible answers. The third section was on recognizing bias phrases. This section included six questions, the student having three answer choices. The fourth section related to recognizing bias in cartoons. Both questions and cartoons were related to sexist bias, each having three possible answers. The final section of the test was on biased word sets, each question having two word sets, the student choosing the set containing the greatest bias. The five questions here brought the total to thirty-four.

The test was designed to provide five questions from each of three bias areas: ethnocentric, religious and political. Ten questions each were used for the areas of sexist and racial bias recognition. A larger number of questions were used because these two areas underwent a two-way analysis of covariance. It might also be noted that one question overlapped both the areas of religious and ethnocentric bias, giving a total of thirty-four questions.

Validity

It was decided that, given the nature of this study, logical or rational methods provided the proper validity. The instrument had been examined by individuals familiar with social studies education on the
eighth grade level. These individuals were junior high teachers and college instructors in education. It should be noted that some questions from the instrument were taken from a test instrument used by Fleming and Weber in Tazewell County, Virginia in 1973-74. That test provided a contribution to the basic structure of the test used in this program.

Questions from the 1963 and 1965 yearbooks of the National Council of Social Studies were examined as well as questions from the National Council of Social Studies bulletin of 1971. It was concluded that the questions on the test presented here were in line with the techniques of the National Council of Social Studies. However, it should be noted that no complete bias recognition test exists so total comparison was impossible.

Reliability

Reliability was determined statistically during the initial administration of the test. The correlation coefficient itself was determined using the Kruder-Richardson formula. The reliability for the control group was .83 and for the experimental group, .74. Reliability coefficients for the posttest were .85 for the experimental group and .88 for the control group. Reliability was not determined for each subtest area considering these were analyzed as components of the entire test.

CONDITIONS OF TESTING

Subjects in the experimental group functioned for an average

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1Weber and Fleming, op. cit.
13 day period in the treatment program. The complete treatment program offered to these experimental subjects is described later in this chapter. In addition, teachers of these subjects were given a syllabus of the program (Appendix B) enabling them to instruct in bias recognition. Inquiry teaching methods were primarily used to teach these skills. This will be more fully explained under the treatment. Students in the control group were pre and posttested and received no instruction in bias recognition. Teachers of both groups were interested in the program, approved of it and volunteered their services. All were experienced and successful professionals.

Experimental group teachers were given some flexibility in the implementation of the program. They were told that the program should be completed within an approximate two and one-half to three weeks period. Each teacher was also given advice on instruction, though all were familiar with the inquiry teaching approach. The test was taken by the teachers and answers and reasons for these answers were discussed. Generally, the teachers were given clarification of the program.

It should be also noted that the testing period was during April and May, 1975. It was not possible to run all groups simultaneously given the curriculum schedules of some of the junior high schools. The exact conditions, as far as possible, prevailed in all experimental classes. In the control classes instruction varied. The important variable there is that no bias instruction of a systematic nature took place in the control classes.

The treatment was designed to teach bias recognition and was inquiry-oriented. The instruction was to allow the student an opportunity to freely explore and discover for himself without being merely
a recipient of information. The treatment itself had ten instructional components and was administered to the class as a whole. Yet, group work and student interaction, as well as individual projects, allowed students ample opportunity for progressing at their own rate. Time was a factor of some importance, yet, the program was kept flexible enough to allow for student differences.

The treatment began with an exercise to acquaint the student with lexical items with which he should familiarize himself. The student was expected to find operational definitions for these terms. Discussion then followed student compilation of this material. The initial treatment might be classified as directed inquiry. It was hoped that the instruction would give the student a basic foundation for understanding the following sections. A quiz was also designed for this area. (Appendix B)

The second instructional section gave the student an opportunity to find in material of his choosing three examples of each of the five types of bias under discussion. This involved group work, with students working toward a personal understanding of the five types of bias. Again, a directed inquiry method was followed. A quiz was also designed for this area. (Appendix B)

The third instructional task involved the studying of political cartoons toward the goal of viewing forms of bias. Students were expected to find their own cartoons and interpret these. This gave the student an opportunity to sharpen his inquiry process and also receive feedback on his findings.

The fourth technique involved the interpretation of an article either written by the student or from a magazine or newspaper. The
student compiled questions from the articles. The questions referred to the article. Another student answered these questions and determined if bias was involved. This procedure is explained in greater detail in the outline. The inquiry instructional method was again followed. The student was given great freedom to choose an article, find bias in an article and devise questions to test bias recognition.

Debate was the format of the fifth exercise. Debate itself can be regarded as a skill. In Chapter 2 of this paper, Kenneth H. Hoover was cited as having written of debate as a very useful teaching aid. Hoover asserted that debate was the advocacy of ideas and issues. Thus, debate appears, of necessity to involve bias. In this section of instruction the student developed systematic arguments advocating racial, sexist, ethnocentric, political or religious bias. The student audience was required to observe, detect and analyze bias. This procedure is explained more completely in the outline.

The sixth section of the treatment was somewhat akin to the fourth. Students were required to write one biased and one unbiased essay on each of the five bias areas. Key words and phrases that illustrate bias were to be noted by each student. This exercise provided the student with an opportunity to demonstrate his skills at understanding bias and hence recognizing it. Again this lesson was directed inquiry, followed by student and teacher interaction.

For the seventh exercise, each student compiled a list of thirty bias words or phrases. This gave the student an opportunity to check his knowledge of bias precipitating words. Two quizzes were also included in the program. They were of a diagnostic nature as opposed to evaluating for grades. Teachers and students discussed.
the quiz after its completion for insight into the correctness of replies and the reasons for such.

The final exercise was for classes that completed the other sections and had time remaining in the three week period. For this section the student was required to compile a list of five newspaper or magazine headlines and accompanying stories. The student was required to find bias within each story. Even though this exercise was somewhat repetitive, it would act to culminate and, at the same time, review the skills that should have been acquired in bias recognition.

In summary, it was hoped that this treatment would systematically attack the problem of teaching bias recognition. The principal teaching method was directed inquiry, a method of teaching in which the student is guided rather than forced to conclusions. Inquiry de-emphasizes lecture-type teaching and emphasizes instruction where the student reaches conclusions without being specifically told in advance to accept the conclusions of the teacher. This technique is widely used in social studies. The treatment was student-oriented and structured, yet with built-in flexibility.

The Treatment Outline

1. A pretest was administered during the first meeting before any one procedure was attempted. The teacher explained fully all steps and answered completely all questions related to the test.

2. The students were given brief operational definitions for each of the following:

   a) Fact
   b) Opinion
   i) Caricature
   j) Sexist
The student was instructed to compile examples of each of these definitions. Teachers were available as resource people and discussion followed these examples. Students were given an opportunity to correct improper examples of these terms. The basic objectives of this section were to give working definitions of these terms and promote student comprehension. A quiz was designed for this instructional area.

(Appendix B)

3. In the second section of the program, the students were assigned the task of finding three paragraphs, statements within a paragraph, or pictoral presentations that clearly illustrated each of the five bias areas of religion, politics, racism, sexism and ethnocentrism. The student was given definitions and examples of each bias area as well as definitions of overt or obvious bias and covert or subtle bias. The material searched could have been written, spoken or pictoral. Students used any sources they wished and library facilities were provided. This was a group task involving two or three students per group. These groups then reported their findings to the class. Each project was criticized, with the goal of a more lucid understanding of each skills area studied. The basic objectives of this section were:

a) To give the student a workable and utilitarian knowledge
of how to recognize the various bias categories studied and where such material can be found and how it is constructed.

b) To give the student an opportunity to begin thinking in a more systemized manner about bias and bias recognition.

A quiz was designed for this area. (Appendix B)

4. The third skills task involved political cartoons. Students found cartoons and wrote their interpretations in class. These cartoons reflected one of each of the bias areas where possible. Students presented the interpretation to the class and discussion followed with the teacher showing how each cartoon was biased. The basic objectives of this section were:

a) To give the student a working knowledge of finding bias in cartoon interpretations.

b) To help the student better understand caricature and the nature and purpose of caricature.

5. Students were asked to write an essay on any one topic. A list of at least five questions were then compiled by the student. These questions were divided into bias and non-bias. These questions were then given to another student. This student would see if he had the skill to find and separate bias material from non-bias material. A discussion followed as to the skillfulness of the questions formulated. Each set of questions was discussed. If the student had difficulty with this assignment, he was assisted by a competent student or the teacher. The basic objective of this section was to give the student added skill in recognizing the difference between bias materials and non-bias materials.

6. Students chose topics for debate. Volunteers or appointees
debated contemporary topics. Teachers familiarized themselves with debate format and used this format. Students were limited to three debates. The student listeners attempted to detect bias and point of view of debaters, as well as the skillfulness of the presentation.

The basic objectives of this section were:

a) The student should become aware of bias in spoken as well as written material.

b) The student should gain some skill in recognizing point of view and statements that support or fail to support various arguments or views.

7. Students attempted to write one biased and one unbiased essay concerning each of the five bias areas. These essays were read and analyzed in class. Key bias words and statements were noted by the student writer as he analyzed his own writing for bias clues. Students questioned and interacted with one another. The basic objectives of this section were:

a) To acquaint the student with bias in written material.

b) To give the student added skill to recognize bias in written material.

8. Students individually compiled a list of thirty bias terms, words and phrases. Each list was read and discussed. Non-biased words were eliminated. The basic objective of this section was to give the student an opportunity to test his comprehension of key bias precipitating words and phrases.

9. Students were furnished with assorted magazines and newspapers. They were then allowed to compile a list of five newspaper or magazine headlines along with accompanying stories. The student then
selected statements, sentences, words or phrases within the story or headline that were biased. The student wrote out what he determined was the central idea of the article and why he felt bias was present. The basic objective of this section was the aiding of the student in the recognition of bias in news stories.

Pilot Study

A pilot study was initiated during March of 1975 to determine the utility of the program. The students used in this study were enrolled in an eighth grade social studies class in Roanoke City. Primarily the pilot program served two functions, a check on the utility of the program and the worth of the test and test questions. The test and program were improved because of the pilot study. Some questions were added, some deleted. Instructions for taking the test were clarified and quizzes were added to give the student feedback on the level of assimilation of the material. The resultant test and instructional techniques were used in the program as it was finally set up in the Roanoke City junior high schools.

It was found that students tended to do well while engaged in the program although no statistical comparisons were used to measure success of the study. The primary purpose was to measure the worth of the test and instruction. Students were asked which test questions were confusing, too simple or too difficult. In addition, students were allowed to freely comment on each instructional phase of the program. The pilot study gave invaluable feedback with which to refine instructional techniques and fit them to meet eighth grade level student personalities and needs. The test was also strengthened as a result of student input. Ambiguities in certain questions were
alleviated and the directions for each section of the test were also changed to ease presentation and to aid clarity. In short, this pilot effort proved very worthwhile in terms of information gathered for use during the actual implementation of the program and the experiment.

**Statistical Analysis**

At the end of the testing period, data was collected on both the control and experimental groups. The total score was analyzed using univariate analysis of covariance. The linear combination of the five subtests was analyzed using multivariate analysis of covariance. Covariance analysis through adjusting the posttest for the pretest is the procedure for controlling for any initial differences. The level of significance for the investigation was set at .05.

If the univariate test was significant, multiple comparison tests were run as appropriate. If the multivariate test was significant, simultaneous confidence intervals were run to determine which of the five subtests were contributing significantly in the multivariate test. Tables and statement compilations are presented to illustrate statistical results.

The descriptive results of the study are illustrated by three tables in Chapter 4. Pre and posttest scores were recorded as well as any gain, positive or negative, by percentage. In addition, each item was noted for percentages answered correctly by the subjects on pre and posttests. These descriptive techniques were used primarily as a supplement to multivariate and univariate analysis of covariance. The statistics and measurement used were kept at a relatively non-technical level.
Summary

In summary, this program encompasses the following:

1. The program was a measure of the effectiveness of a social studies bias recognition program aimed at teaching the skills necessary for bias recognition.

2. The design of the study was a pretest, posttest design with one group experiencing the treatment and one not experiencing the treatment.

3. The sampling was done from the entire population of six Roanoke City junior high schools. Three junior high schools were assigned to each control and experimental group. Within the two groups, one class was selected for the study. Thus, there were three classes in the section receiving the treatment and three classes in the section not receiving the treatment.

4. The instrument of evaluation was a bias recognition test.

5. Reliability and validity were determined for the instrument. Efforts were made to optimize both categories.

6. The treatment, a social studies bias recognition program, was installed in the three experimental classes.

7. Data for the subjects was analyzed using descriptive methods.

8. The statistical technique used for testing the significance of the study and the bias recognition program was the analysis of covariance.

The results of this study will be reported in the next section of this paper.
Chapter 4

ANALYSIS AND INTERPRETATION OF DATA

As previously stated, the problem of this study was to determine if a bias recognition program would alter the achievement level in bias recognition of eighth year social studies students. The total sample of subjects included in the study were 69 students in the experimental section and 68 in the control section. This number of students took a pre or posttest or both. Sixty-nine students in the experimental group took the pretest, 64 students in the control group took the pretest. On the posttest there were 62 experimental subjects and 62 control subjects. Sixty students in the experimental group took both pre and posttest and 57 in the control group took both tests.

The presentation of the findings of this study was organized into two areas, a descriptive area and an inferential one. The descriptive area is one in which all subject's test scores were used if the student had taken a pretest, posttest or both. Descriptive data is presented by total score area, by subtest areas and by individual questions. This section included three tables that were used to facilitate ease of data presentation.

The second section of this analysis only included students with pre and posttest as well as properly coded personal data as to name, race and sex. The number of subjects included in this section numbered 60 in the experimental group and 57 in the control group. Some description of mean scores, gains and adjusted means are included in
this section. It is felt that this is needed to add a clarification of a test of the hypotheses. By dividing this study into two areas of analysis it is felt that a more complete data breakdown was accomplished. In addition, by including subjects not receiving both tests in the descriptive section all student data received some analysis to aid in better understanding the implications of the study. The inferential section includes two tables and six illustrations to aid in data interpretation.

The data obtained for this study was collected using a bias recognition test (Appendix A). As mentioned earlier, descriptive and inferential statistics were used to analyze the data and test hypotheses. The areas examined included five separate bias areas as well as the total area. Each of these areas were:

1. Ethnocentric Bias Recognition. This area involves the ability to distinguish prejudice negative or positive concerning various ethnic configurations. Test questions used in measuring this area were 17, 18, 24, 32 and 33.

2. Religious Bias Recognition. This area involves the student's powers at distinguishing negative or positive prejudice against or for a particular religion, all religions or a non or anti-religious view. Questions used to measure this area were 2, 3, 8, 18, and 34.

3. Political Bias Recognition. This area involves the skill of perceiving prejudice by politicians, news media or individuals for or against a political ideology, point of view, party or another nation. Questions used to measure this area were 12, 13, 14, 15 and 16.

4. Racial Bias Recognition. In this study this skills area was limited to blacks or whites. Other races for the purpose of the
study were considered ethnic groups. This area involves the detecting of racial prejudice or anomalies in written, spoken or pictorial material. Questions used to evaluate and measure this area were 1, 5, 9, 10, 11, 20, 21, 25, 27 and 31.

5. Sexist Bias Recognition. This skill involves the ability to detect prejudice, overt or covert, friendly or unfriendly against either sex. Questions used to measure this area are 4, 6, 7, 19, 22, 23, 26, 28, 29 and 30.

6. Total Bias Recognition. This area was a composite of the five component areas. The skill involved the general ability to recognize prejudice. All questions were used to measure this area.

Each of these areas were examined descriptively and hypotheses earlier set were inferentially tested. The descriptive analysis is presented in the form of three tables. Comprehensive results for both experimental and control groups are presented in tables 1 and 2. Table 1 includes information on the number of students who took the test, the mean or average score attained by the group, the test standard deviation, the reliability estimates and the test standard error or measurement.

Table 2 includes item and subtest (skills area) achievement levels, in percent, for students in both experimental and control groups. For example, the achievement level of students in the experimental group for ethnocentric bias recognition on item 17 was 86% on the pretest, that is 86% of the students in the experimental group got item 17 correct on the test. Other figures for individual items may be interpreted in the same manner for both experimental and control group. Also included in Table 2 are subtest achievement levels for each bias recognition area. Referring to the ethnocentric bias recognition total,
this total represents student achievement on this subtest. The achievement level for students in the experimental group on the pretest was 65.2%. Information on other subtests can be similarly interpreted. Table 3 also gives comparative data for experimental and control groups on each subtest area of achievement. For example, line one shows ethnocentric bias recognition for pretest achievement at the 65.2% level for the experimental group and 69.6% for the control group, while the posttest level of achievement shows a 79.6% for the experimental group and a 70.6% level for the control group. Other data can be interpreted in a similar fashion.

Casual observation of the data in tables 1, 2, and 3 suggests the overall effect of the treatment was successful. In each subtest area, as well as the total, the experimental group showed an increase in test performance as well as achievement level greater than that of the control group. Looking at this descriptive data to find a measure of success we may use an 80% achievement level as an indication of a successful treatment. Weber and Fleming used such a level in an analysis of skills testing. They wrote: "Many competency based educators suggest the 80% achievement level as evidence of a successful program." If this proficiency level is used we find the experimental group reached this goal on only two of the six levels. They were: ethnocentric bias recognition - 79.6% and religious bias recognition - 80.2%. The control group failed to reach this level in any and all subtest and total areas.

Fleming and Weber, in their study, considered a 5% gain or loss

1Weber and Fleming, op. cit., p. 15.
<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of students - Experimental</td>
<td>69</td>
<td>62</td>
</tr>
<tr>
<td>No. of students - Control</td>
<td>64</td>
<td>62</td>
</tr>
<tr>
<td>Mean Score - Experimental</td>
<td>18.78 (55%)</td>
<td>24.77 (75%)</td>
</tr>
<tr>
<td>Mean Score - Control</td>
<td>19.84 (58%)</td>
<td>20.39 (60%)</td>
</tr>
<tr>
<td>Standard Deviation - Experimental</td>
<td>5.09</td>
<td>5.91</td>
</tr>
<tr>
<td>Standard Deviation - Control</td>
<td>6.02</td>
<td>6.97</td>
</tr>
<tr>
<td>Reliability (KR20) - Experimental</td>
<td>.74</td>
<td>.85</td>
</tr>
<tr>
<td>Reliability (KR20) - Control</td>
<td>.83</td>
<td>.88</td>
</tr>
<tr>
<td>Standard error of Measurement - Experimental</td>
<td>2.52</td>
<td>2.58</td>
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<tr>
<td>Standard error of Measurement - Control</td>
<td>2.44</td>
<td>2.28</td>
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Table 2

ITEM AND SUBTEST PERCENT ACHIEVEMENT
LEVELS: PRE AND POSTTEST

Subtest 1 - Ethnocentric Bias
Recognition

<table>
<thead>
<tr>
<th>Item</th>
<th>Experimental</th>
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<tr>
<td></td>
<td>Pre</td>
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<td>17</td>
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<td>18</td>
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<td>82</td>
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<td>24</td>
<td>59</td>
<td>85</td>
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<td>32</td>
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<td>73</td>
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<td>33</td>
<td>52</td>
<td>71</td>
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<tr>
<td>Total</td>
<td>65.2</td>
<td>79.6</td>
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Subtest 2 - Religious Bias
Recognition

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<th>Experimental</th>
<th>Control</th>
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<tbody>
<tr>
<td></td>
<td>Pre</td>
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<tr>
<td>2</td>
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<td>77</td>
</tr>
<tr>
<td>3</td>
<td>78</td>
<td>82</td>
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<tr>
<td>8</td>
<td>64</td>
<td>84</td>
</tr>
<tr>
<td>18</td>
<td>77</td>
<td>82</td>
</tr>
<tr>
<td>34</td>
<td>55</td>
<td>76</td>
</tr>
<tr>
<td>Total</td>
<td>68.4</td>
<td>80.2</td>
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Subtest 3 - Political Bias
Recognition

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<th>Control</th>
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<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
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<tr>
<td>12</td>
<td>48</td>
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<td>13</td>
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<td>14</td>
<td>41</td>
<td>66</td>
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<td>15</td>
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<td>16</td>
<td>68</td>
<td>71</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>70.4</td>
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Table 2 (Continued)

Subtest 4 - Racial Bias Recognition

<table>
<thead>
<tr>
<th>Item</th>
<th>Experimental Pre</th>
<th>Experimental Post</th>
<th>Change</th>
<th>Control Pre</th>
<th>Control Post</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>83</td>
<td>87</td>
<td>+4</td>
<td>81</td>
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<td>-7</td>
</tr>
<tr>
<td>5</td>
<td>74</td>
<td>73</td>
<td>-1</td>
<td>75</td>
<td>71</td>
<td>-4</td>
</tr>
<tr>
<td>9</td>
<td>41</td>
<td>69</td>
<td>+28</td>
<td>45</td>
<td>61</td>
<td>+16</td>
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<td>35</td>
<td>53</td>
<td>+18</td>
<td>38</td>
<td>50</td>
<td>+12</td>
</tr>
<tr>
<td>20</td>
<td>52</td>
<td>73</td>
<td>+21</td>
<td>69</td>
<td>65</td>
<td>-4</td>
</tr>
<tr>
<td>21</td>
<td>51</td>
<td>74</td>
<td>+23</td>
<td>55</td>
<td>79</td>
<td>+4</td>
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<tr>
<td>25</td>
<td>64</td>
<td>87</td>
<td>+23</td>
<td>75</td>
<td>79</td>
<td>+4</td>
</tr>
<tr>
<td>27</td>
<td>59</td>
<td>76</td>
<td>+17</td>
<td>70</td>
<td>71</td>
<td>+1</td>
</tr>
<tr>
<td>31</td>
<td>51</td>
<td>69</td>
<td>+18</td>
<td>61</td>
<td>60</td>
<td>-1</td>
</tr>
<tr>
<td>Total</td>
<td>55.1</td>
<td>73</td>
<td>+17.9</td>
<td>61.3</td>
<td>64.4</td>
<td>+3.1</td>
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</tbody>
</table>

Subtest 5 - Sexist Bias Recognition

<table>
<thead>
<tr>
<th>Item</th>
<th>Experimental Pre</th>
<th>Experimental Post</th>
<th>Change</th>
<th>Control Pre</th>
<th>Control Post</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>58</td>
<td>73</td>
<td>+15</td>
<td>59</td>
<td>56</td>
<td>-3</td>
</tr>
<tr>
<td>6</td>
<td>86</td>
<td>87</td>
<td>+1</td>
<td>78</td>
<td>68</td>
<td>-10</td>
</tr>
<tr>
<td>7</td>
<td>81</td>
<td>89</td>
<td>+8</td>
<td>67</td>
<td>73</td>
<td>+6</td>
</tr>
<tr>
<td>19</td>
<td>4</td>
<td>45</td>
<td>+41</td>
<td>9</td>
<td>11</td>
<td>+2</td>
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<td>22</td>
<td>48</td>
<td>85</td>
<td>+37</td>
<td>61</td>
<td>69</td>
<td>+8</td>
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<td>41</td>
<td>73</td>
<td>+32</td>
<td>47</td>
<td>58</td>
<td>+11</td>
</tr>
<tr>
<td>26</td>
<td>62</td>
<td>85</td>
<td>+23</td>
<td>77</td>
<td>74</td>
<td>-3</td>
</tr>
<tr>
<td>28</td>
<td>13</td>
<td>26</td>
<td>+13</td>
<td>20</td>
<td>8</td>
<td>-12</td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>35</td>
<td>+5</td>
<td>36</td>
<td>27</td>
<td>-9</td>
</tr>
<tr>
<td>30</td>
<td>55</td>
<td>77</td>
<td>+22</td>
<td>81</td>
<td>68</td>
<td>-13</td>
</tr>
<tr>
<td>Total</td>
<td>47.8</td>
<td>67.5</td>
<td>+19.7</td>
<td>53.5</td>
<td>51.2</td>
<td>-2.3</td>
</tr>
</tbody>
</table>
TABLE 3
PRE AND POSTTEST ACHIEVEMENT LEVEL COMPARATIVE DATA FOR EXPERIMENTAL AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Bias Recognition Area</th>
<th>Items</th>
<th>Pretest Achievement Level (%)</th>
<th>Posttest Achievement Level (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exp.</td>
<td>Control</td>
</tr>
<tr>
<td>Ethnocentric</td>
<td>5</td>
<td>65.2</td>
<td>69.6</td>
</tr>
<tr>
<td>Religious</td>
<td>5</td>
<td>68.4</td>
<td>64</td>
</tr>
<tr>
<td>Political</td>
<td>5</td>
<td>52</td>
<td>47.6</td>
</tr>
<tr>
<td>Racial</td>
<td>10</td>
<td>55.1</td>
<td>61.3</td>
</tr>
<tr>
<td>Sexist</td>
<td>10</td>
<td>47.8</td>
<td>53.5</td>
</tr>
<tr>
<td>Total</td>
<td>35*</td>
<td>58</td>
<td>59.2</td>
</tr>
</tbody>
</table>

* Question 18 is used in both the ethnocentric and religious bias recognition areas.
as another measure of success.\textsuperscript{2} This criterion is much less rigorous than the 80\% level and may aid in descriptive clarification of data analysis. When this criterion is applied it was found that the experimental group exhibits a greater than 5\% gain in all five subtest areas and the total test area, while the control group shows a 5\% improvement in one area, that of political bias recognition. The control group does show small gains with the exception of the sexist bias recognition area, in which a loss of 2.3\% is exhibited.

These descriptive techniques tend to show the treatment as successful, if moderately so. Analysis of covariance was used to test the hypotheses in each area that had been previously set. In order to effectively use analysis of covariance, students must have completed both pre and posttest. The number of students meeting this criterion included 60 in the experimental section and 57 in the control section. Multivariate analysis of covariance tests were employed as well as univariate tests with simultaneous confidence intervals used to test the relative power of each subtest area. In racial bias recognition, a two-way analysis of data took place, giving F ratios by group, race and race and group. Simultaneous confidence intervals were conducted for significance in the area of race and group. In the sexist bias recognition area, a two-way analysis also took place giving data by group, by sex and by sex and group. Multivariate analysis was employed due to the fact that each of the five subtest areas could not have been assumed to be completely independent of each other. In this analysis, a linear combination of these five subtest areas served as the dependent

\textsuperscript{2}Weber and Fleming, op. cit., p. 16.
variable and the differences between groups was determined by using this linear combination as well as univariate areas where appropriate.

**Total Score Area**

Table 4 is a presentation of data giving score means and gains by race, sex and group. In each experimental group a gain is reported. Gains are also shown for each control section with one exception, that of black males not treated. In this case a decrease is noted. The cell mean showing the greatest net increase is black males treated. The adjusted means are cell means that have been altered to reflect inequalities existing between groups at the time of the pretest. The data presents a rather successful treatment accomplishment. Data for the test of the hypothesis is shown in Illustration 1. This illustration concerns the success of the program when comparing total score for the control group against total score for the experimental group.

<table>
<thead>
<tr>
<th>Illustration 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score Area</td>
</tr>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Within Cells 2556.765</td>
</tr>
<tr>
<td>Regression 1080.189</td>
</tr>
<tr>
<td>Group 611.889</td>
</tr>
</tbody>
</table>

The total score outcome indicates success, at the p level of probability which is less than .001. This can be interpreted as meaning the odds are less than one in one thousand that the program's success was due to chance. The null hypothesis is rejected and the alternate hypothesis is accepted. That is, it can be said that there is a significant difference in total bias recognition for students receiving such a
program compared to those not receiving this treatment. This outcome, for the purpose of this study, is considered to be the most important, and the subtest areas should only be considered as interdependent components of the total test score area.

Subtest Areas

The means, adjusted means and gains are presented for each subgroup in Table 5. Observation of this table reveals that the experimental group gained in all but one of the twenty cell areas. This area, that of white males remained the same. The black male cell accounted for five of these mean decreases. However, the control group also reported gains in all but seven of the twenty cells. This may reveal slight sensitization to the test. However, this factor should not, in analysis of covariance, prove to be important since both groups would be sensitized to the test. Illustration II presents analysis of score outcomes for the five subscore areas by main effects. These areas can be best analyzed when taken in linear combination.

Illustration II

Subtest Analyses (Ethnocentric, Religious, Political, Sexist and Racial)

Multivariate Test

<table>
<thead>
<tr>
<th>F</th>
<th>Degree of Freedom Hypothesis</th>
<th>Degree of Freedom Within</th>
<th>P Less than</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.727</td>
<td>5</td>
<td>100</td>
<td>.001</td>
</tr>
</tbody>
</table>

Univariate Test

<table>
<thead>
<tr>
<th>F</th>
<th>Mean Square</th>
<th>P Less than</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnocentric Bias</td>
<td>6.693</td>
<td>7.709</td>
</tr>
<tr>
<td>Religious Bias</td>
<td>8.512</td>
<td>11.623</td>
</tr>
<tr>
<td>Political Bias</td>
<td>9.039</td>
<td>10.384</td>
</tr>
<tr>
<td>Sexist Bias</td>
<td>24.876</td>
<td>75.119</td>
</tr>
<tr>
<td>Racial Bias</td>
<td>6.858</td>
<td>24.244</td>
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</table>
Table 4

Total Score Means, Gains and Adjusted Means

<table>
<thead>
<tr>
<th></th>
<th>No. of Subjects</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Gain</th>
<th>Adjusted</th>
</tr>
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<tbody>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White - Ex.</td>
<td>24</td>
<td>19.542</td>
<td>23.917</td>
<td>4.375</td>
<td>23.863</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White - Con.</td>
<td>13</td>
<td>21.231</td>
<td>22.077</td>
<td>.846</td>
<td>21.007</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black - Ex.</td>
<td>8</td>
<td>16.500</td>
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<td>7</td>
<td>25.278</td>
</tr>
<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Black - Con.</td>
<td>7</td>
<td>15.429</td>
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<td>15.709</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>White - Ex.</td>
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<td>21.000</td>
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<td>26.545</td>
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<td>Female</td>
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</tr>
<tr>
<td>White - Con.</td>
<td>22</td>
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<td>24.182</td>
<td>1.727</td>
<td>22.375</td>
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<td>.467</td>
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<tr>
<td>Control</td>
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### Ethnocentric Bias Recognition

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<th>Posttest</th>
<th>Gain</th>
<th>Adjusted Means</th>
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### Religious Bias Recognition

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### Political Bias Recognition

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### Sexist Bias Recognition

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62
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<td><strong>Male</strong></td>
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<td>Experimental</td>
<td></td>
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</tbody>
</table>
The multivariate test for all five subtest areas shows a significant F ratio at the .001 level. Each univariate test also shows significance. The subtest areas of ethnocentric bias recognition shows significance at the .011 level; that is, there is less than eleven in one thousand chances that significance itself occurred by chance. Religious and political bias recognition can be similarly interpreted at the .004 and .005 levels respectively. The sexist and racial bias recognition areas by group are significant at the .001 and .01 levels respectively by main effects. Further analysis of these areas will be presented later. With this analysis it is possible to reject the null hypothesis in question and the alternate hypothesis may be accepted. There is a significant difference in ethnocentric, religious, political, sexist and racial bias recognition for students receiving a bias recognition program as compared to those not receiving such a treatment. However, further analysis is useful in a multivariate context.

Simultaneous confidence intervals for control and experimental mean differences were run to explore the significance of the F ratios. These results are presented in Illustration III. A confidence interval constructed at the .05 level will show with 95% certainty that the difference in scores lies between two points.

The illustration shows the confidence intervals for ethnocentric, religious and racial bias spanned zero; that is, using ethnocentric bias as an example, it can be said that it is 95% certain that the true difference between the experimental group score and the control group score falls between -.171 and 1.203, given that the alpha level is .05 for the multivariate test.
The confidence intervals for sexist and political bias recognition do not span zero. Therefore, these two areas can be said to contribute significantly to the multivariate test given that simultaneous confidence intervals are the multivariate analogue to univariate confidence intervals and control for the level of confidence. This analysis shows that in the multivariate sense the sexist and political bias recognition areas are more powerful. In the multivariate sense these two subtest areas contribute substantially to the significance of the multivariate test in that they are found not to span zero. It can be seen in Illustration II that the F ratios in these two subtest areas are larger than the subtest areas that span zero and consequently contribute more to significance in a relative sense. However, in a univariate sense, all subtest areas were significant, with the subtest areas of ethnocentric, religious and political bias having smaller F ratios.

Illustration IV shows data on the two-way analysis done on the sexist bias recognition subtest area.
Sexist Bias Recognition

Univariate Test

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Mean Square</th>
<th>P less than</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexist Bias Recognition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Sex</td>
<td>.001</td>
<td>.003</td>
<td>.974</td>
</tr>
<tr>
<td>By Sex and Group</td>
<td>.986</td>
<td>2.976</td>
<td>.657</td>
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</table>

When students are compared by sex there is no significant difference. In fact, the F ratio shows that there are .974 chances in 1,000 that a significant result would be caused by chance. The null hypothesis is retained. Comparisons for interaction, that is looking for the best combination of sex and group reveal there is no best combination on this variable. The F ratio indicates chances are .657 out of one thousand that such a best combination would exist because of chance or error. The null hypothesis here is retained. From this it can be said that no significant difference is found to exist between sexes or combinations of group and sex.

Illustration V shows data for the fifth subtest area, that of racial bias recognition.

Illustration V

Racial Bias Recognition

Univariate Test

<table>
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<th>P less than</th>
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</thead>
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<td>.689</td>
<td>.66</td>
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<tr>
<td>By Race</td>
<td>.814</td>
<td>20.555</td>
<td>.018</td>
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</table>

Data for racial bias recognition reveals that when this variable is analyzed by race, we find no significant difference. P is less than
.66, therefore greater than .05, the alpha level of significance. 
Given this, it is clear that there is no best racial group on this 
variable. The null hypothesis is retained.

A difference is found in the interaction combination of race 
and group. The significance here is p less than .018. Further 
analysis was needed to determine which combination or combinations of 
race and group provided for the rejection of the null hypothesis.
Simultaneous confidence intervals were used to determine these 
combinations.

Illustration VI
Race and Group Analysis for Racial Bias Recognition

<table>
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<th>Difference</th>
<th>Interval Value</th>
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<td>Con.</td>
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<tr>
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<td>Ex.</td>
<td>1.072</td>
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<td>Ex.</td>
<td>1.189</td>
<td>1.693</td>
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<td>Con.</td>
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This informal multiple comparison analysis reveals one area of 
significance at the .05 level. This area is that of black students 
treated, compared to black students who were not treated. It can be 
said that black students undergoing a racial bias recognition program 
perform significantly better than black students not receiving this 
treatment. The subtest area and the treatment for this area can be
said to be very successful for black students.

With this information the null hypothesis is rejected and the alternate is accepted. There is a significant best combination or best combinations of race and group at the .05 level on the variable of racial bias recognition.

From the analysis of the data many consistent patterns appear. The control and experimental sections had rather close beginning achievement. Mean score differences were not significant. After the post-test, the experimental group exhibited significantly larger gains than did the control group on total score area as well as subtest areas, especially the subtest areas of political and sexist bias recognition. Concerning the two-way analysis for sexist and racial bias recognition, only one of the four null hypotheses were rejected. In this case, the interaction of race with group proved significant in that black students in the control group achieved less than did black students treated.

The descriptive analysis also reveals a moderately successful treatment. The mean score for total score area increased for both the control and experimental group. Yet, the experimental group shows not only a greater mean increase, but also a higher percentage of net increase in each subtest area as well as each question. The experimental group shows a decrease in percentages of responses correct for one question, while the control group shows a loss in fourteen areas. The descriptive analysis of each subtest area and each question reveals a moderate superiority for the treatment group. Implications of this data analysis as well as recommendations will be discussed in the final chapter.
Chapter 5

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS

Summary

The problem of this study was to ascertain to what degree a bias recognition program would act to increase the bias perception levels of eighth grade social studies students. Hypotheses were set covering five bias recognition subtest areas: ethnocentric, religious, political, sexist and racial bias recognition. Two areas, racial and sexist bias recognition, were to undergo two-way analysis. Sexist bias recognition was analyzed for differences by control and experimental group, sex, and sex and group. The racial bias recognition subtest area was also analyzed by experimental and control group, by race and by race and group.

A review of available literature revealed little in the way of work previously done concerning bias recognition. Some efforts had been made in the area of communication skills. The review itself was divided into three areas.

1. Articles and studies dealing with communication skills
2. Testing and research studies on skills
3. Articles dealing with bias recognition as a skills area

The review itself revealed only one prior research study had been done in the area of skills. This study was accomplished by Weber and Fleming and covered a wide range of skills areas. Two excerpts from articles were found that concerned bias recognition as a skill.
However, no research studies were found in this area.

After available literature was reviewed, a bias recognition test was designed to test the aforementioned five bias recognition subtest areas as well as the total test area. This test was administered in the three experimental classes located in three different junior high schools in Roanoke, Virginia. The test was also administered to three classes located in the three remaining junior high schools. In this way each junior high school contained one treatment or control class. After an approximate thirteen school days period, the classes were retested. During this period between tests the experimental classes received instruction in the form of a bias recognition program.

Data from these tests was analyzed using both descriptive and inferential statistical techniques. The statistical application of most importance was multivariate and univariate analysis of covariance. In covariance analysis of a pretest - posttest design, posttest scores are adjusted for pretest scores in order to statistically control for any initial differences that may have existed between the groups at the time of the pretest.

Descriptive analysis showed the experimental group exhibited superior achievement on the posttest by total and subtest areas. Inferential analysis further showed a significant difference existed between groups for the total score as well as all the five subtest areas of ethnocentric, religious, political, sexist and racial bias recognition. The two subtest areas exhibiting the greatest success were political and sexist bias recognition. No significant difference was found to exist in the sexist bias recognition subtest area by sex or sex and group. In the racial bias recognition subtest area
significant differences were not shown to exist by race, but did exist by race and group. Simultaneous confidence intervals analysis further showed that the most effective combination was black students that had received the treatment, compared to black students not receiving the treatment.

Conclusions

Results of this study should not be overgeneralized or overstated. Results obtained with eighth grade subjects in Roanoke, Virginia City Public Schools should not be considered as a determinant for judging the success of such a program if occurring in a city with a different population configuration. Also, results should not be generalized to other grade levels. However, conclusions that can be drawn as a result of the study are:

1. Descriptive analysis revealed that the treatment did make a difference in increasing the scores significantly in the experimental group. Though control scores did also increase, they did not do so in proportion to the experimental group.

2. While all subtest areas analyzed by group showed significant F ratios, no best sex or interaction was found on the sexist bias recognition subtest either by sex or by sex and group.

3. In racial bias recognition a significant difference by group was found. However, no significant difference is found between either race. A significant difference is found between race and group. Analysis reveals that the most effective combination on this variable are black students receiving the treatment compared to black students not receiving the treatment.

4. It is possible to successfully implement a successful bias
Recommendations

The recommendations were limited to the purposes and significance of the study:

1. To determine if a bias recognition program can be successfully implemented in an eighth grade situation.

2. To find if students undergoing an experimental treatment designed to aid them in recognizing bias perform significantly better on a bias recognition posttest as compared to students not receiving such a treatment.

3. To test if students differ in understanding and recognizing the five subtest areas of ethnocentric, religious, political, sexist, and racial bias when analyzed by control and experimental group.

4. To analyze if male and female students differ in recognizing sexist bias.

5. To measure if black and white students differ in understanding and recognizing racial bias.

6. To create a bias recognition program and test for eighth grade students that can be of aid to social studies educators concerned with the problem of bias recognition.

Since this study was an investigation of the differences in bias recognition perception on a total test and five subtest areas for an experimental and control group, the recommendations were made on the basis of the findings of this study.

1. Since the bias recognition program was found to be moderately successful, it is recommended that the possibility of setting up a mini-course in bias recognition be studied by social studies
supervisory personnel in Roanoke City Schools.

2. Given that the test had reasonably high reliability and validity, it is recommended that copies be given to teachers interested in attempting to implement within the framework of their classes a bias recognition program.

3. Communication should be encouraged between students and between students and teachers, as well as parents to determine the nature of bias. Individual biases might be discussed in class situations with the goal toward understanding the biases of others.

4. Projects and studied might be instituted for social studies skills areas including bias recognition and especially media bias.

5. It is strongly recommended that a bias recognition program be included as an integral section of social studies courses at all levels. It is felt that this study has shown that such a need exists and can be met.

**Implications and Concluding Remarks**

The above conclusions and recommendations suggest certain implications for similar programs and studies that might have import in a bias recognition or other skills area. These implications became apparent during the study.

1. The program was of a limited nature in time and material covered. No attempt was made for a follow-up. Therefore, it cannot be determined to what extent the skill was retained by the student or if the student transferred knowledge of the skill to his outside life.

2. This skill was not studied in combination with other communication skills areas. It was studied alone and separate. Yet,
other skills acted to effect performance in bias recognition.

3. The subjects in this study contributed to its success. Yet, if the racial or sexist balance had been different or the study taken place using subjects in a different section of the nation, the outcome may not have been the same.

4. Individual teacher personalities are very important in this type of study. Teachers have to be willing to work hard to enable the program to be successful.

5. Individual class time for the completion of the program can vary to a degree. Therefore, student speed in accomplishing tasks can be important.

6. In the area of racial bias recognition, black male and female cells in the experimental group showed the greatest mean increases. Black males also exhibited the greatest adjusted mean score. Implications here are that blacks had a great interest in racial bias.

7. Political and sexist subtest areas showed greater F ratios, and their confidence intervals did not span zero. The area of sexist bias showed the largest F ratio and it was the only subtest area significant at the .001 level. White and black female experimental cells also showed the greatest mean gains in this area. It appears from this that female students were more interested in an area that concerned them directly. Perhaps this is also the reason for the greater F ratios in the political bias subtest area. Interest and consequently study effort may be concomitant. All subjects appear to be interested in political bias and females especially interested in sexist bias. While these implications can be made, it should be considered that no reliability coefficient was determined for separate
subtest areas.

While further study is recommended in the area of bias recognition, media bias and other social studies skills areas, it is important to note that difficulties are inherent in developing studies such as has been accomplished here. Researchers should be reminded that when operating in a public school framework, conditions are far from ideal and efforts to minimize extraneous interference can be taxing and frustrating. Laboratory conditions simply do not exist. Perhaps this is not completely negative, if the research is to produce any utilitarian outcomes. Good research should add to the educator's knowledge and, in the case of experiments such as this one, be transferred to the classroom where teachers can use the new information to aid in the educational process. If conditions are far from ideal for the experimenter they are likewise far from ideal with the teacher in a classroom situation. Good research provides outcomes and insights that can be flexible yet strong enough to be fitted to the needs and desires of both students and instructional personnel. It is felt by this researcher that such can be accomplished.
BIBLIOGRAPHY


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I. Recognizing Biased Statements

Directions:

The statements below are either biased or they are not. Biased statements are based on opinion or emotions. The other statements are not. If you think the statement below shows bias, put a B in the blank before the statement. If you think the statement does not show bias, mark the blank with an O. Please answer all questions.

1. Blacks are better athletes than whites.
2. The Jews are primarily interested in making money.
3. The Baptists are the best religion in the South.
4. All women and men should have equal rights under the law.
5. The Federal government is required, by law, to cut off funds to any institution that discriminates on the basis of race.
6. Only males should compete in inter-collegiate athletics.
7. Mary, like most women, is not strong enough to compete with men in the business world.
8. The United States has no official religion.

II. Bias in Written or Spoken Material

Directions:

Check the best possible answer that you think the point of view is of the author of the following paragraphs. The paragraph may or may not reflect bias. Read the question statement after you have read the paragraph. Put a check by the answer you feel is the best possible answer. Please answer all questions.

A strong tie existed between slave and master because each was dependent on the other. The master needed the work and loyalty of his slaves. The slave was dependent on his master for all his needs. The
slave system demanded that the master care for the slave in childhood, sickness, and in old age. The regard the master and slave had for each other made plantation life happy and prosperous.

9. If the author concluded that the master always made plantation life happy and prosperous for the slave, the conclusion by itself would show:
   ___ pro-slavery bias
   ___ anti-slavery bias
   ___ no bias

10. Check the best possible answer that you think is the point of view of the author.
    ___ for slavery
    ___ against slavery
    ___ neutral

11. If the author had concluded only that master and slave were dependent on one another, this conclusion, by itself, would show:
    ___ pro-slavery bias
    ___ anti-slavery bias
    ___ no bias

    Through this barbaric use of atomic weapons, the American imperialists wanted to demonstrate the monopoly which they then held in this field and to intimidate the other peoples. They intended to make the atom bomb a tool of their policy in order to force their will and policy on other peoples in the post-war era.

12. The author of the above paragraph is:
    ___ anti-American
    ___ pro-American
    ___ neutral

13. The word "barbaric" in referring to the atomic weapon paragraph reflects:
14. The author refers to the American imperialists. The use of the word "Imperialists" reflects:

- pro-American bias
- neutral, just a descriptor
- anti-American bias

Soviet Police muscled into a Moscow apartment and arrested Nobel Prize author, Alexander Solzhenitsyn. Mrs. Solzhenitsyn said her husband was confronted by seven "rough" men just inside the door of her apartment. The police then dragged him off.

15. The author of the above paragraph is:

- pro-Solzhenitsyn
- anti-Solzhenitsyn
- neutral

16. The use of the word "rough" in describing the seven men is:

- biased against Soviet police
- biased in favor of Soviet police
- neutral

17. The foreigners coming into our nation threaten to destroy it. Their heathen religions and customs undermine our own proud culture. Italians, Poles, Hungarians and other Eastern and Southern Europeans threaten to destroy the American economy by working so cheaply that American labor is pushed out of the market. American business is undersold by their cheap and shoddy goods. We must rid ourselves of this blight.

17. The author of the above paragraph shows:

- he is neutral
- he is biased in favor of immigrants
- he is biased against immigrants
18. By referring to religion and customs as "their heathen religion and customs," the author of the above paragraph shows:

_____ bias against all religions and peoples

_____ bias in favor of immigrants religions and customs

_____ bias against the immigrants religions and customs

The pioneers who travelled westward across the mountains faced great hardships. These men were hard put to find room for their wives, children and livestock on the long journey. Many pioneers and their wives died of hunger or were killed by Indians.

19. The author of the above paragraph is showing:

_____ bias against women

_____ bias against men

_____ no bias

Although they were badly needed for work on the farm, many Negroes refused to work at any price. They thought that freedom from slavery meant freedom from work. They wanted to enjoy their freedom and be lazy. It was felt that these ex-slaves were dangerous and might cause violence.

20. The author of the paragraph is:

_____ for the freeing of slaves

_____ against the freeing of slaves

_____ neutral, had no opinion

21. This paragraph shows:

_____ anti-black bias

_____ pro-black bias

_____ no bias

III. Bias Phrases

Directions:
Put a check in the blank before the phrase that shows the **Least** amount of bias. Use the best answer.

22. A. ____ Bill Smith and his wife  
B. ____ Bill and Mary Smith  
C. ____ Bill and his family

23. A. ____ Founding Fathers  
B. ____ Early American leaders  
C. ____ Early American statesmen

24. A. ____ That little Jap  
B. ____ Oriental-Americans  
C. ____ Chinamen

25. A. ____ Honkies  
B. ____ White Americans  
C. ____ White folks

26. A. ____ The American woman  
B. ____ The housewife  
C. ____ The little woman

27. A. ____ Uncle Tom  
B. ____ Colored people  
C. ____ Black Americans

IV. Bias in Cartoons

Directions:

Examine cartoons A & B. Carefully read the questions. Check the response that best answers each question. Please answer all questions.
"I'd marry him in a minute, but he can't cook worth a damn."
28. The cartoonist in Cartoon A probably feels that:
   ( ) bias against women exists in America
   ( ) bias is a good thing
   ( ) bias against men exists in America

29. The cartoonist in Cartoon B probably feels that:
   ( ) bias against women exists in America
   ( ) bias is a good thing
   ( ) bias against men exists in America

V. Bias in Words

Directions:

In each of the next five questions check the word set in each question that reflects the greatest bias. Be sure to check one word set in each question and only one word set.

30. A. ( ) Chairman - Tomboy
     B. ( ) Chairperson - Athlete

31. A. ( ) Blood - Honkie
     B. ( ) Black - White

32. A. ( ) Polish - Chinese
     B. ( ) Polack - Chink

33. A. ( ) Mexican - German
     B. ( ) Wetback - Kraut

34. A. ( ) Heretic - Pagan
     B. ( ) Protestant - Jewish
The Program Outline

1. A pre-test will be administered during the first meeting before any one procedure is attempted. The teacher should explain fully all steps and answer completely all questions related to the test.

2. The students should be given brief operational definitions for each of the following:
   a) Fact  i) Caricature
   b) Opinion  j) Sexist
   c) Central Idea  k) Ethnocentric
   d) Bias  l) Religious Beliefs
   e) Prejudice  m) Political Ideology
   f) Skill  n) Racism
   g) Synthesis  o) Anti
   h) Analysis  p) Pro

The students will be expected to compile examples of each of these definitions. Teachers should be available as resource people. Discussion will follow these definitions. Students will be given an opportunity to correct improper definitions of these terms.

3. In the second section of the program, the students will be assigned the task of finding three paragraphs, statements within a paragraph, or pictoral presentations that clearly illustrate each of the five bias areas of religion, politics, racism, sexism and ethnocentrism. The students should be given definitions and examples of each bias area as well as be given definitions of overt or obvious bias and covert or subtle bias. The material searched can
be written, spoken, or pictoral. Students may use any sources they wish and library facilities might be used. This will be a group task involving two or three students per group. These groups will then report their findings to the class. Each project will be criticized with the goal of a more lucid understanding of each skills area studied.

4. The third skills task involves political cartoons. Students will find cartoons and write of their interpretations in class. These cartoons should reflect one of each of the bias areas. Students should present the interpretation to the class and discussion will follow with the teacher showing how each cartoon is biased.

5. Students will be asked to write an essay on any one topic. A list of at least five questions will then be compiled by the student. These questions should be divided into bias and non-bias. These questions will then be given to another student. This student will see if he has the skill to find and separate bias material from non-bias material. Student should be led to understand that phrases like "John and his wife", rather than both names, reflect bias. Also, "statesmen", instead of "leaders" reflects subtle bias. "Man", instead of "people" is another example of bias. This is to help them gain a feeling for this section. A discussion will follow as to the skillfulness of the questions formulated. Each set of questions will be discussed. If the student has difficulty with this assignment, he will be assisted by a competent student or the teacher. The student should receive two evaluations, one for the test made, and one for the test taken.

6. Students will choose topics for debate. Volunteers or
appointees will debate contemporary topics. Teachers should familiarize themselves with debate format and use this format. Students should be limited to three debates. The student listeners will attempt to detect bias and point of view of debaters, as well as the skillfulness of the presentation.

7. Students will attempt to write one biased and one unbiased essay concerning each of the five bias areas. These essays will be read and analyzed in class. Key bias words and statements should be noted by the student writer as he analyzes his own writing for bias clues. Students should question and interact with one another.

8. Students will individually compile a list of thirty bias terms, words and phrases. Each list will be read and discussed. Non-biased words will be eliminated.

9. Students will be furnished with assorted magazines and newspapers. They should then compile a list of five newspapers or magazine headlines along with accompanying stories. The student should then select statements, sentences, words or phrases within the story or headline that are biased. The student should write out what he feels is the central idea of the article and why he feels bias is present.

10. Quiz I

Part I - Define

a) Fact
b) Opinion
c) Bias
d) Prejudice
e) Skill
f) Caricature
g) Sexist
h) Ethnocentric
i) Racism
j) Religious beliefs
k) Political

Ideaology
Part II - Give examples of each of the above eleven words.

Quiz II

All members of the Democratic party are very intelligent. They were able to wreck the nation with no help at all from the Republican President who struggled to keep the nation strong, as all Republicans do. The Democrats spend all their time thinking of ways to destroy America. They caused inflation, gave away Indochina and turned America into a weak, soft nation. Those Democrats are pretty smart all right.

1. The paragraph shows:
   A. Bias against the Democrats
   B. Bias for the Democrats
   C. No bias

2. The author would probably like:
   A. The Democrats
   B. The Republicans
   C. The Communists

3. The author thinks losing Indochina was:
   A. Good
   B. Bad
   C. He doesn't care

4. When the author says the Democrats are smart people, he shows:
   A. Bias in favor of Democrats
   B. Bias against Democrats
   C. No bias

5. Which shows the least bias?
   A. John and Mary
   B. John and his woman
   C. John and his wife

6. Which shows the least bias?
   A. Dumb Indians
   B. Red savages
   C. The American Indian

7. Which shows the least bias?
8. Which shows the least bias?
   A. The American imperialists
   B. The nasty Americans
   C. The American people

9. Which shows the least bias?
   A. The Communist Party
   B. The Saviors of Mankind
   C. Godless Communists

Put a B in front of the biased word

10. ____ Mercenary
11. ____ Traitor
12. ____ Patriot

12. Posttest to be completed by students.

Bias Recognition Test Key

Quiz II Key

1. B 23. B
2. B 24. B
4. 0 26. A
5. 0 27. C
7. B 29. I
8. 0 30. A
9. 1 31. A
10. 1 32. B
11. 3 33. B
12. 1 34. A
13. 2
14. 3
15. 1
16. 1
17. 2
18. 3
19. 1
20. 2
21. 1
22. 8
VITA

Joseph T. Coleman, Jr. was born in Roanoke, Virginia on July 17, 1947. His early education was received in Our Lady of Nazareth Catholic School in Roanoke, Virginia. He was graduated from Patrick Henry High School of Roanoke in June, 1965. In September of that year he began his college studies. In June of 1969, he graduated from Concord College in Athens, West Virginia with a Bachelor of Arts degree. While in college he was active in athletic and academic affairs. Among other activities he was a member of Pi Kappa Alpha social fraternity and the Blue Key honor fraternity. He served during his senior year as a member of the student government and was elected to Who's Who in American Colleges and Universities. His major at Concord College was history, with a minor in economics.

In September of 1969, he took the position of junior high school social studies teacher and track coach with Roanoke City Public Schools. His teaching career began at Monroe Junior High School. In July of 1971, he completed requirements for the Master of Arts degree in Liberal Studies from Hollins College with a major in history and social studies.

While continuing to teach, he served in a part-time management capacity with the Roanoke Times-World Corporation and acted as Adjunct Professor of history with Upper Iowa University Extension division in Roanoke.

During the spring of 1975, he completed his teaching career which had spanned nearly six years and began full-time study for the
Doctor of Education degree.

Upon his completion of the requirements for the degree of Doctor of Education in July of 1975, he will assume the position of supervisor of social studies for Roanoke City Public Schools.

He is married to the former Catherine Lee Farris of Hinton, West Virginia and has a son, Brian Michael and a daughter, Kerry Lee.

Joseph T. Coleman, Jr.
THE RELATIVE EFFECTS OF A BIAS RECOGNITION PROGRAM ON THE BIAS PERCEPTION LEVEL OF EIGHTH YEAR SOCIAL STUDIES STUDENTS

By

Joseph T. Coieman, Jr.

(ABSTRACT)

The problem of this study was to ascertain to what degree a bias recognition program would act to increase the bias perception level of eighth grade social studies students. Hypotheses were set covering five bias recognition subtest areas: ethnocentric, religious, political, sexist and racial bias recognition. Two areas, racial and sexist bias recognition, were to undergo two-way analysis. Sexist bias recognition was analyzed for differences by control and experimental group, sex, and by sex and group. The racial bias recognition subtest area was also analyzed by experimental and control group, by race, and by race and group.

A review of the available literature revealed little in the way of work previously done concerning bias recognition. Some efforts had been made in the area of communication skills. The review itself was divided into three areas:

1. articles and studies dealing with communication skills
2. testing and research studies in skills
3. articles dealing with bias recognition as a skill area

The review revealed only one prior research study had been done in the area of skills. This study was accomplished by Dan B. Fleming and Larry Weber and concerned a wide range of skills. Two excerpts
from articles were found that concerned bias recognition as a skill. However, no research studies were found in this area.

After available literature was reviewed, a bias recognition test was designed to test the aforementioned five bias recognition subtest areas as well as the total test area. This test was administered in the three experimental classes located in three different junior high schools in Roanoke, Virginia. The test was also administered to three classes located in the three remaining junior high schools. In this way each junior high school contained one treatment or control class. After an approximate thirteen school days period, the classes were re-tested. During this period between tests the experimental classes received instruction in the form of a bias recognition program.

Data from these tests was analyzed using both descriptive and inferential statistical techniques. The statistical application of most importance was multivariate and univariate analysis of covariance. In covariance analysis of a pretest-posttest design, posttest scores are adjusted for pretest scores in order to statistically control for any initial differences that may have existed between the groups at the time of the pretest.

Descriptive analysis showed the experimental group exhibited superior achievement on the posttest by total and subtest areas. Inferential analysis further showed a significant difference existed between groups for the total score as well as all the five subtest areas of ethnocentric, religious, political, sexist and racial bias recognition. The two subtest areas exhibiting the greatest success were political and sexist bias recognition. No significant difference was found to exist in the sexist bias recognition subtest area by sex.
or sex and group. In the racial bias recognition subtest area significant differences were not shown to exist by race, but did exist by race and group. Simultaneous confidence intervals analysis further showed that the most effective combination was black students that had received the treatment, compared to black students not receiving the treatment.

Conclusions from this study showed positive results in all subtest and total areas pointing toward a need for a more systematic approach toward skills-oriented curriculum in public schools. One facet of the study of importance is a development of a bias recognition test that can be further refined toward the goal of more effective measurement of this skills area.