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The effects of a community involvement program on adolescent student's citizenship attitudes

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THE EFFECTS OF A COMMUNITY INVOLVEMENT PROGRAM ON ADOLESCENT STUDENTS' CITIZENSHIP ATTITUDES

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CHAPTER I

INTRODUCTION

Upon looking at any of the many lists of social studies instructional objectives, one can hardly avoid finding an objective called citizenship. A National Council for the Social Studies sponsored publication on civic education states, "In one sense, desirable citizenship traits in a democratic society remain the same today, in the midst of rapid cultural change, as they were hundreds of years ago. Effective participation by the individual in public affairs continues to require the same four essentials: knowledge, thought, commitment, and action. In application, however, each generation redefines good citizenship to fit demands of the times."[1]

Many of the recent curriculum development projects have emphasized conceptual organizations for social studies instruction. Great stress has also been placed on using inquiry methods to help students acquire knowledge and develop effective thinking processes. Far less attention has been given by these projects to the development of programs which would increase student participation.

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[1]Donald W. Robinson, Promising Practices in Civic Education (Washington D.C.; National Council for the Social Studies, 1967), p. 3.

A document adopted as a position paper by the Board of Directors of the National Council for the Social Studies takes a broad view of Social Studies education. While recognizing the crucial nature of knowledge and rational thought processes, the position paper warns that .... "without action, neither knowledge nor rational processes are of much consequence.... Whatever students of the Social Studies learn should impel them to apply their knowledge, abilities, and commitments toward the improvement of the human condition."[2] It is the contention of the authors that students have not been given ample opportunity to do this.

> Social participation in a democracy calls for individual behavior guided by the values of human dignity and rationality and directed toward the resolution of problems confronting society. The practices of the school and particularly of social studies programs have not provided for active and systematic student participation. Because social studies educators have usually limited their thinking to what has been described as "two by four pedagogy--the two covers of the text book and the four walls of the classroom"--the potential applications of knowledge and thought have not been fully realized. A commitment to democratic participation suggests that the school abandon futile efforts to insulate pupils from social reality and, instead, find ways to involve them.
>
> Social participation should mean the application of knowledge, thinking and commitment in the social arena. An avenue for interaction and identification with society can build an awareness of personal competency--awareness that one can make a contribution--and ingredient essential for a positive self-concept. Programs ought to develop young adults who will say: "I know what is going on, I'm part of it, and I'm doing something about it."[3]

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[2]National Council for the Social Studies, Social Studies Curriculum Guidelines (Washington D.C.; National Council for the Social Studies, 1971).

[3]Ibid., p. 14.

Student self esteem, social responsibility, and sense of political efficacy are extremely important to participatory democracy. Students who have negative images will not see themselves as being able to participate. Students who do not see a need for personal action will let "others do it". Students who do not see the possibility of improving the social and political systems will turn off and become alienated.

There is a considerable body of literature documenting the existence of adolescent alienation. Popular writers such as Edgar Friedenberg (1959) and Paul Goodman (1961) sparked much discussion amongst educators during the 1960's. More recently Dr. Victor Eisner in his paper Alienation of Youth (1969) charged "...all is not well in the suburbs... It has become obvious even to the casual observer that many young people from middle class white families are showing signs of alienation from our society."[4] He saw this problem as stemming from the ways developed for bringing up children and for educating them to become a part of this society. He believed that barriers have been created between adults and adolescents because of segregation of age, overly-scheduled recreational activities reducing spontaneity, and a lack of alternate pathways to success.

James S. Coleman (1972) saw the present student role as relatively passive. The student has always been in preparation

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[4]Victor Eisner, "Alienation of Youth", Journal of School Health, 39 (February 1969), p. 81.

for action, but never acting. "The consequences of this student role, and the action-poverty it implies has been an increased restiveness among the young."[5] Coleman advocated shortening the school day so that students would have time to be involved in purposeful activities outside the school.

If a democratic society requires an informed and participating citizenry and if many youth feel a sense of alienation, educators face a crucial question, "Can schools make any impact on adolescent self esteem, sense of community responsibility, and sense of political efficacy?"

Early approaches to the study of self esteem were correlational. Positive correlations have been found between high self esteem and school performance (Brookover, 1967 and Williams and Cole, 1968). Moreover, the tendency to drop out of school correlated positively with low self esteem, (Harding, 1966).

Although provocative, these correlational studies demonstrate only the presence of a relationship. They give little or no evidence as to whether self esteem is a cause of the forms of behavior with which it is correlated, an effect of that behavior, or the result of some other source of influence by which both self esteem and behavior are affected.

Recently, developmental psychologists (Sprinthall, 1973 and Erickson, 1973) have attempted to increase student ego and

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[5]James S. Coleman, "How The Young Become Adults," Review of Educational Research, 42 (Fall 1972), p. 435.

moral development through intervention strategies. These strategies involved changes in secondary school curriculum accompanied by student community involvement. Their studies show that it is possible to increase student ego and moral development.

The literature is rich in describing social studies community action programs carried out in the 1930's, 1940's, and 1950's. These programs used the community both as a source of data and as a laboratory for testing hypotheses, and also stressed social responsibility and community problem solving. After a lessening of interest in community action during the 1960's, community based education is being advocated once again and new programs have been developed. Unfortunately these newer programs, as was the case for the older programs, have on the whole received little systematic evaluation to find out whether or not they are achieving their stated purposes.

While much of the research on political socialization has shown the importance of pre adolescent socialization on political attitudes, (Greenstein, Easton, Hess, Torney), several authors (Cohen, Langton, Jennings) contend that political values and attitudes may be subject to modification during adolescense through maturation. There have been a very limited number of intervention studies, (Rockler, 1969 and Button, 1972) which indicate the possibility of changing adolescent feelings of political efficacy. These intervention studies have, however, used classroom curriculum change rather than an intervention strategy of using social participation in the community. Thus

they have failed to test claims of many who advocate the use of community involvement programs to increase pupils' feelings of political efficacy.

General Overview of the Study

The purpose of this study is to test the basic hypothesis that an intervention strategy of community involvement can increase an adolescent's self esteem, sense of social responsibility, and sense of political efficacy.

The investigation reported in this study was conducted at Armstrong High School in Plymouth, Minnesota and Cooper High School in New Hope, Minnesota, over a four month period, September 1971, to January 1972. Both these schools are a part of School District 281 (Robbinsdale area schools). During the study seniors at both high schools were introduced to the concept of community involvement as it related to the social studies curriculum. The twelfth grade social studies curriculum at both schools was essentially organized around a "Problems of Democracy" approach. The key question posed by the curriculum was "If you wish to improve our society, how do you bring about social and political change?"

At the beginning of the school year most seniors were given the choice of meeting part of their social studies requirements through either a community involvement choice or through a more traditional library research project.[6] A community Involvement

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[6]At each school there were special programs for low ability students and for students who could not assume sufficient responsibility for their time under modular scheduling. Participants in either of these special programs were not eligible to participate in the community involvement program.

Fair was held at each school. Representatives from political parties, social action groups, educational institutions, municipal departments, and social work agencies were invited to participate. These representatives set up display booths at the schools, and students and agencies arranged mutually-agreeable responsibilities and schedules for pupils participating in the community involvement program.

The advisors for the program, the twelfth grade social studies teachers, required students working in the community involvement program to spend at least two hours per week at their respective agencies. The community agencies agreed to place students in face-to-face helping situations with clients and not to use them as clerks or typists. The students were also required to read widely on social problem topics from many sources of information. Small group discussions were held each week to synthesize the reading and the community involvement experience.

For the purpose of this study, eligible twelfth grade students were given scales measuring self esteem, sense of social responsibility, community responsibility, and political efficacy. Three of the scales had been used in previous research studies.[7] The scale measuring sense of community responsibility was developed by the researcher.

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[7]They were reported in John P. Robinson and Philip Shaver, Measures of Social Psychological Attitudes, and John P. Robinson, Jerrold G. Rusk, Kendra B. Head, Measures of Political Attitudes, Institute for Social Research (University of Michigan, 1971).

Four months later the scales were given again to all eligible students whether or not they had participated in the community involvement program. Data for this study consist of the change score results analyzed by multiple regression.

Concepts Basic To The Study

The major concepts needing clarification for the purpose of this study are:

1. Self esteem
2. Sense of social responsibility
3. Sense of political efficacy
4. Community involvement

Self Esteem

Attitudes toward self are multi-dimensional. Morris Rosenberg, writing on the adolescent self image, states that attitudes toward self may differ in content, in direction, in intensity, in importance, in salience, in consistency, in stability, and in clarity. Our self images are largely revealed if their dimensions are known.

> If we can learn what the individual sees when he looks at himself (his social statuses, roles, physical characteristics, skills traits, and other facets of content); whether he has a favorable or unfavorable opinion of himself (direction); how strongly he feels about his self attitudes (intensity); how important the self is, relative to other objects (importance); whether he spends a great deal of time thinking of what he is like--whether he is constantly conscious of what he is saying or doing--or whether he is more involved in tasks or other objects (salience); whether the elements of his self picture are consistent or contradictory (consistency); whether he has a self attitude which varies or

> shifts from day to day or moment to moment, or whether on the contrary he has a firm definite picture of what he is like or a vague, hazy blurred picture (clarity)--if we can characterize the individual's self picture in terms of these dimensions, then we would have a good, if still incomplete, description of the structure of the self image.[8]

It is Rosenberg's contention that self esteem is the pivotal variable in one's self concept. Self esteem is the variable related to the direction of the self attitude. "Does the individual have a favorable or unfavorable opinion of himself?"

Within this study a high self esteem means that an individual respects himself and considers himself worthy. He does not consider himself better than others, but neither does he consider himself worse. He does not feel that he is the ultimate in perfection, but on the contrary recognizes his limitations and expects to grow and improve.

Low esteem, on the other hand, implies self rejection, self dissatisfaction, self contempt. The individual lacks respect for the self he observes. The self picture is disagreeable, and he wishes it were otherwise.

Sense of Social Responsibility

While absolute consensus does not exist as to minimum competencies for citizens in a democracy, most social studies educators would accept as essential: knowledge, thought, commitment, and action.

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[8]Morris Rosenberg, Society and the Adolescent Self-Image (Princeton: Princeton University Press, 1965), p. 7.

For the purposes of this study a sense of social responsibility is defined as the student's commitment to help others within his community, coupled with a sense of obligation to do so.

Sense of Political Efficacy

As defined in several previous political socialization studies a sense of political efficacy is "The feeling that one's own action does have, or can have, an impact upon the political process" (ie. that it is worthwhile to perform one's civic duties).[9]

Community Involvement

For the purposes of this study community involvement has been defined as a social studies curriculum emphasizing student service to their community. This service involved weekly person-to-person help for recreational, educational, political, religious, and medical agencies. No financial remuneration was given to the students. Students were also required to read widely about general social problems as well as those problems specific to their agency. Their community service and reading were synthesized each week through teacher-directed small group discussions.

Importance of the Study

Few social studies educators today would deny the worth of

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[9]John P. Robinson, Jerrold G. Rusk, and Kendra B. Head, Measures of Political Attitudes, p. 459.

school programs intended to increase self-esteem, sense of community responsibility, and sense of political efficacy for their students. Yet as acceptable as these objectives may be and despite the many community action programs described in the literature, there is little research either to support or deny the effectiveness of such programs in achieving their stated purposes.

There have been few studies evaluating the effectiveness of any kind of intervention strategy designed to improve the adolescent's self esteem. Many more studies are needed to increase our understanding of appropriate strategies for educators to use in order to reach this educational objective.

There have been some recent intervention studies evaluating the effectiveness of newly written curricula upon adolescent political knowledge and attitudes. There is a need to determine whether community involvement as an alternate intervention strategy can effect adolescent attitudes of political self efficacy.

While a few community based social studies programs were evaluated in the 1930's, 1940's, and 1950's, little evaluation of such programs has taken place recently. With the growth and availability of computer technology, coupled with newer statistical techniques, more sophisticated evaluation is possible today.

Summary

Thus this study serves to expand and relate three different research concerns of educators, psychologists, and political

scientists. This study should help to bring together previous studies of self esteem, sense of community responsibility, and sense of political efficacy as they relate to citizenship education.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter will: (1) review the literature relevant to the assumptions of this study, (2) examine the limitations of the literature as they relate to the assumptions and, (3) consider the implications of the literature for the study reported in this thesis.

Literature Related to the Assumptions of the Study

Assumption I.

There is a need for public schools to help students develop improved self concepts, a sense of political efficacy, and a sense of social responsibility.

The functions of American public schools are complicated by the pluralistic nature of American society. Many different views exist about the proper objectives for public education. While disagreement exists, there is a considerable body of literature which supports the need for public schools to help students develop improved self concepts, a sense of political efficacy, and sense of social responsibility.

During the 1960's several authors (Goodman, Coleman, Keniston) noted the widespread alienation found among American youth. The director of the National Institute of Mental Health reported to

a United States Senate sub-committee that in 1969 "The current problem of alienation of all youth is wider, deeper, and more diffuse than at any previous time in our history."[1] As the extent of youth alienation became known to the public, many persons advocated a more active role for public schools in improving students' self and citizenship attitudes. Educators, responding to these concerns, developed many new programs which they hoped would improve student's attitudes.

Educational and social science research studies have found many relationships between alienation and learning. Alienation studies have discovered the relationship between a sense of powerlessness and learning. Galliher (1967), in a study of hospitals and prisons concluded that, "If an individual feels powerless to control the outcomes of his actions, then it will seem of little use to him to learn materials that conceivably help him perform more adequately."[2] Friendenberg (1962), in a study of selected American high school students, found that many students, especially those from lower or working class families, suffered humiliation, discouragement, and crippled self concepts because schools were geared more toward maintaining authority and exacting obedience than toward building self esteem and individuality.

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[1]Victor Eisner, "Alienation of Youth," Journal of School Health, 39 (February 1969), p. 82.

[2]John Galliher, "Perceived Powerlessness in a Reformatory and a Hospital" (Ph.D. dissertation, University of Indiana, 1967), p. 142.

Moser and Sprinthall (1971), in reviewing studies of school climate, concluded that schools are educating student attitudes, self concepts, and values, that there is a significant hidden curriculum accompanying formal academic instruction which has much to do with the student's psychological development. In their view, schools in this indirect and unrecognized manner affect how the student sees himself, his competencies, his worth, and his prospects as a human being. "This hidden curriculum is typically more inimical and psychologically crippling than it is positive and developmental."[3]

Democratic government demands active political participation by it's citizens. Political participation subsumes political interest and a sense of political efficacy. An individual's self concept is intertwined with his sense of political efficacy. Schools can and have reinforced behavior patterns which are undemocratic. John Patrick in reviewing the research on political socialization warns, "conformity, docility, and unquestioning obedience in the school can lead to parallel behavior in political situations outside the school. It appears doubtful that.... development of ability to participate effectively in democratic political affairs or a disposition to honor the worth and dignity of individuals, are served by denigrating student self esteem..."[4]

Social studies educators aware of the relationship between

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[3]Ralph Moser and Norman Sprinthall, "Psychological Education: A New Form for Personal Growth and Human Development," People Watching, Vol. I, No. 1, 1971, pp. 6-11.

[4]John Patrick, Political Socialization of American Youth, (Washington D.C.: National Council for the Social Studies, 1967), p. 30.

self-concept and political behavior have increasingly made improved self-concept and social participation major goals of social studies instruction. Several recent publications of the National Council for the Social Studies have reflected these concerns.[5]

There is also an increasing demand by the business community, government, and from higher educational institutions for public schools to encourage the social participation of students in community affairs. In 1967 the National Commission on Youth was established by a group of businessmen, social scientists, and educators to nurture and utilize young people's talents in ways meaningful to themselves and their communities. The commission has developed models to meet these objectives.

The state of Oregon created a pilot program in 1971 entitled, Developing Responsible Citizenship Through Community Service. It was the intent of the Oregon Board of Education to include community service as an elective area with related classroom instruction as an accepted part of the program for social science requirements if the results of the pilot program were positive.

The evaluation of the program showed it to be a worthwhile experience for students and the program now carries citizenship-social science credit in many Oregon school districts.

At the University of Minnesota the Center for Youth Develop-

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[5]Promising Practices In Civic Education (1967), Drugs and Youth (1971), Social Studies Curriculum Guidelines (1971), Values And Youth (1971), and The Young Voter (1972).

ment created the Student Community Involvement Project in February, 1972. It's purpose was to encourage the systematic use of experimental learning methods in secondary education (especially in social studies) to enhance both the school's traditional role in teaching traditional subject matter and its newer function of facilitating personal growth of students. The assumption behind the program was that through significant involvement in the wider community and reflection on their experiences, students could best learn about their community, learn how to learn in the community, how to act effectively in it, and learn more about themselves in relation to the community.

Thus it can be seen than that an increasingly large number of segments of our society support school efforts to improve students' self concepts, sense of political efficacy, and sense of social responsibility.

Assumption II.

Intervention strategies can improve the self esteem of adolescents.

While there exists an extensive body of educational and psychological research related to self concept, there have been few studies which have investigated the effects of particular intervention models on self concept image. Within the past five years however, more intervention studies have been conducted and reported in the literature.

During 1965-1969, an experimental developmental study of a four year comprehensive vocational education program was carried

out at Hudson High School, Hudson, Ohio. The program was designed to provide a more flexible, personalized curriculum for students not going on to college. The developers employed a non-graded evaluation system that emphasized guidance responsibilities for all persons coming in contact with the vocational students (ie. teachers, counselors, parents, and potential employers). Vocational students in the 9th and 10th grades were provided exploratory experiences so that they would make more realistic and informed occupational training and job placement choices.

The primary purpose of the research design was to assess attitudinal changes of the vocational students. One of the hypotheses tested was that as a result of the program, vocational students would improve their self concepts. The researcher employed three sub-scales of Bill's Index of Adjustment and Values to assess self concept change. These scales measure self perception, self satisfaction, and ideal self. Bill's index had been utilized for self concept measurement in several previous studies.

Using co-variance analysis, the researchers found significantly greater improvement ($p < .05$) on self perception and ideal self scores for vocational girls than for college preparatory girls. The hypothesis that boys in the vocational program would increase in their self-perception, self-satisfaction, and ideal self-scores more than college preparatory boys was not supported by the data.

The researchers speculated that the increase in the self perception and ideal self scores of vocational girls might have

been caused by the improved appearance of the girls enrolled in the cosmotology course. They also felt that the child care course, in which students worked directly with small children, might have contributed to overall test score gains.

The Deliberative Psychological Education Project, part of the Minneapolis Southeast Alternative Program, conducted two research studies during 1972-1973. Both of these studies evaluated curriculum intervention models designed to facilitate psychological development and to teach particular psychological skills.

In the first study Sprinthall (1973) designed and evaluated the effects of a course entitled Learning Psychology by Doing Psychology: A High School Curriculum in the Psychology of Counseling. The course was offered as a social studies elective on a pass-fail basis at Marshall-University High School, in Minneapolis, Minnesota.

This course was designed as a practicum and seminar experience to promote the learning of listening skills and the development of empathic responses through actual peer counselling experiences. The practicum sessions consisted of sequential training in role play exercises, examinations of counselling tapes, and counselling of high school peers. The seminar sessions included readings on communication, discussions of counselling films and tapes, and an integration with the practicum units to encourage reflection and cognitive restructuring of the total learning experience. The instructional approach represented an

attempt to balance and integrate the process and content of counselling psychology. Thus actual process experiences in learning counselling techniques and active listening skills were balanced by content experiences through reading, writing assignments and discussions of counselling films.

An array of assessment procedures as proximate measures of psychological growth were used such as the Kohlberg Test of Moral Maturity, the Loevinger Test of Ego Development, interviews, clinical assessments of writing assignments, and student journals. A major change occurred on the Loevinger scales. As a general indicator of ego development in a sequence of stages, the students in one counselling class moved from level 3 to level 4 (X^1=3.2, X^2=4.4, ($p < .001$). Sprinthall saw this shift as one of students moving from being wary and self protecting, to having more trust and open communication and higher self respect and complexity. "Essentially, this was a shift from other-directedness to the beginning of a more integrated inter-reliant and less egocentric stage."[6] The results from the Test of Moral Maturity, while not as dramatic, statistically confirmed the trend shift ($p = .08$). The project staff of clinically oriented counselors and teachers felt without question that the statistical results confirmed their own subjective impressions of growth and maturity.

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[6]Norman Sprinthall, A High School Curriculum in the Psychology of Counselling (Minneapolis: Minneapolis Public Schools, 1974), p. 11.

In the second study, Erickson (1973) evaluated the effects of a course entitled, "A Study of Women in Literature" upon the moral and ego development of adolescent girls. The experimental curriculum was team taught to a group of 23 sophomore girls during the spring of 1973. This course was elective and did not contain a random sample of students. According to the author "the diverse education, economic, and social backgrounds of the student population within the school were reflected in class enrollment."[7]

The experimental curriculum was taught in four instructional phases: (1) building emotional relationships between class members and teachers, (2) building better communications within the class, (3) restructuring cognitions and, (4) changing overt behaviors.

During phase three, students interviewed girls and women across the generation span. Content areas chosen for interviewing included general value questions and social role questions related to vocational, intellectual, and marital roles of women. Interview experiences and responses were shared with the class. The data from the interviews were examined to discern differences by ages and stages of moral development. The students read current articles on sexual stereotypes, language and inequality, the equal rights amendment, and selected roles of women portrayed in literary

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[7]V. Lois Erickson, Psychological Growth for Women: A High School Curriculum Intervention (Minneapolis: Minneapolis Public Schools, 1973), p. 11.

works throughout this phase.

The phase four instructional focus was on the changing of overt behaviors. Activity included a personal examination of congruency between beliefs and behaviors, planned behavioral contracts in specific areas (eg. being more assertive in the classroom), classroom reinforcement sessions, and feedback on the behavioral change.

Multiple assessments of the course included psychological growth measures developed by Kohlberg (1963) and Loevinger and Wessler (1970), attitudes toward women scale developed by Spence (1973), and clinical measures of personal growth recorded in journals, questionnaires, class climate checks, student interviews, tapes of classes, and attendance.

The results on the Kohlberg instrument indicated an average amount of change on the moral maturity scale of a one-third stage increase ($p=.07$). Results from the Loevinger Sentence Completion Form showed that twelve of the 23 students moved one scale stage. Nine students showed no change and two regressed. The overall class mean increased from Pre to Post scores ($p<.05$). On the attitudes Toward Women Scale the Pre to Post test results were nighly significant ($p<.001$). The test results indicated a movement of the female students' attitudes toward a more emergent position on equal rights and choice of social roles.

These three studies do provide some evidence that the curriculum intervention models can promote positive psychological growth for adolescents.

Assumption III.

Intervention strategies can affect the sense of social responsibility of adolescents.

The researcher could not find any well-designed study in the literature which would support such an assumption. The major studies on civic education, The Detroit Citizenship Education Study (1945-1949) and the Columbia Education Project (1958), did assess student attitudes. Their assessments, however, used very subjective evidence.

In the Detroit study investigators attempted to evaluate citizenship through both objective and subjective measures. Because the investigators saw emotional adjustment as the crucial problem in citizenship education, much of their program evaluation centered on student self attitudes. To assess student self attitudes, the investigators utilized the Mooney Problem Check List and the California Test of Personality. Some teachers in the study also used sociograms for individual classroom analysis. Extensive anecdotal records were kept by participating schools and individual classroom teachers. These test instruments and observational records provided considerable data, but their interpretation is difficult. Because of the lack of random sampling and control groups for the study, any observed changes in student attitudes cannot be ascribed completely to the program components. Because computer technology was not accessible to the Detroit researchers as it is today, they were not able to use multivariable regression analysis on their data. Multiple regression

analysis would have allowed them to develop a prediction equation for their post scores. Such a prediction equation would have taken into account the contribution of several variables to the post scores.

The Columbia study assessed student attitudes toward contemporary problems and politicians. Scales were developed and validated for these attitudes. The researchers also developed an instrument which they called the Student Terminal Appraisal. This appraisal consisted of a series of open-ended questions to be answered by individual students at the conclusion of a specific learning activity. Through the use of this instrument the evaluation staff members of the project were able tc partially assess students' feelings about the privileges and responsibilities of American citizenship.

The impressions drawn from the Student Terminal Appraisal, while very interesting and insightful, cannot be considered conclusive due to the non-random sampling of students and to the lack of reliability and validity data for this instrument.

Assumption IV.

Intervention strategies can affect an adolescent's sense of political efficacy.

Although most studies of political socialization have not been intervention studies, there have been a few studies which measured the effects of a particular teaching strategy on adolescent feelings of political efficacy. For example, a three year

study (1953-1956) by Schick and Somit, at New York University's Washington Square College, attempted to evaluate the effects of an introductory political science course on student attitudes toward personal political participation. The study, while conducted with college students, does provide some insights into the effectiveness of intervention strategies.

Four kinds of introductory political science courses were studied. Each course met three hours weekly in sections small enough to permit considerable discussion. A "standard" two-semester introduction to government course emphasized American government, with some attention given to political theory and foreign political institutions. The three participation-oriented courses had a number of common features. All were components of an "integrated" three-semester social science sequence which covered psychology, sociology, economics and political science. Another common feature was the effort made in all three to expose the students to practical politics and practicing politicians. Prominent public personages and local Democratic and Republican party officials discussed their experiences with the students. Other politicians, including members of the United States Congress, recorded interviews for use during class hours. Students were urged to participate in workshops of the local Citizenship Clearing House and, for the benefit of those who could not attend, the more important proceedings were tape recorded. In addition, arrangements were made for course members to work actively during election campaigns with party organizations of their choice, although unfor-

tunately not everyone was able to do so.

To measure student attitudes toward personal political participation, a 22 item Likert-type scale was devised. The test-retest reliability of the scale was determined by testing five other comparable student groups. The reliability coefficients obtained indicated adequate consistency for a comparison of group scores. No validity data on the scale were reported.

Students in all four classes were given the scale at the beginning and end of the course. Using .01 as the criterion for statistical significance, Schick and Somit found no significant change of attitude toward political participation by students in any of the courses. Only in one case did the participation oriented treatment result in an attitude change at a .05 level of significance. In this case the average initial score was appreciably lower than the average initial scores for the other courses. Schick and Somit concluded that the results of their study did not prove that all participation-oriented courses fail in their goal. However, they cautioned, "It seems clear that future claims for them (participation-oriented courses) must be demonstrated rather than assumed."[8]

Unfortunately Schick and Somit did not analyze differences in attitude changes between students who had been active participants and those who simply had been exposed to political activists.

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[8]Marvin Schick et al, "The Effect Of The Introductory Political Science Course On Student Attitudes Toward Personal Political Participation," American Political Science Review (December 1958), p. 1132.

The effects of active political participation on student political attitudes need further study.

Langton and Jennings, in a study published in 1968, were interested in effects of government courses on adolescent political socialization. They held interviews with a national probability sample of 1,669 high school seniors distributed among 97 secondary schools (public and non-public). They developed their own questionnaire for these interviews. The questionnaire was composed of seven scales which measured:

1. Political knowledge and sophistication
2. Political interest
3. Spectator politicalization (the degree to which students consume political content in mass media)
4. Political discourse (politically typed dialogue with peers)
5. Political efficacy
6. Political cynicism
7. Civic tolerance

Coefficients of reproducibility were run on the scales (CR .90), but the researchers did not report any validation procedures.

Using the Multiple Classification Analysis Program,[9] Langton and Jennings first examined differences in attitudes between students who had taken a more traditional American Government

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[9]The Multiple Classification Analysis Program (MCA) is a Computer Program which allows a researcher to perform multivariate analysis.

course and students who had taken a more topically-oriented, wider-ranging American Problems Course. Finding little difference between the two types of courses, they treated them together and focused their analysis primarily on the amount of exposure to social studies courses, viz. none, one, or two courses during grades 10-12. They found that the number of courses taken by students had little effect on their knowledge or attitude scores.

Langton and Jennings believed that the possibility exists that the political orientations of pre-adults are essentially refractory to change during high school years. They reasoned that...

> Certainly the pre-high schooler has already undergone, especially in the American context, several years of intensive formal and informal political socialization. He may have developed, by the time he reaches secondary school, a resistance to further formal socialization at this stage in his life cycle. But there is also an alternative or additional explanation. If the course work represents information redundancy, there is little reason to expect even modest alterations. By redundancy, we mean not only repetition of previous instruction, though there is surely surfeit of that. We mean also redundancy in the sense of duplicating cues from other information sources, particularly the mass media, formal organizations, and primary groups. Students not taking civics courses are probably exposed to these other sources in approximately the same doses as those enrolled in the courses. Assuming that this is the case, and that the courses provide relatively few inputs, the consequence would be a lack of differentiation between course takers and non-course takers.[10]

In order to assess the effects of the high school social studies curriculum where redundancy might be less frequent, Langton

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[10]Kenneth P. Langton and M. Kent Jennings, "Political Socialization And The High School Civics Curriculum In the United States," American Political Science Review, 62 (September 1968), pp. 858-859.

and Jennings examined a Black sub-population. Using a multivariable analysis, they found that for Black students the number of courses taken is significantly associated with their political knowledge score (beta=.30). The number of civics courses taken by White students had little perceptible effect on their sense of political efficacy (beta=.05), but for Black students course exposure was moderately related to a sense of political efficacy (beta=.18). This was particularly true for Blacks from less educated families.

Langton and Jennings concluded that "although the overall findings are unambiguous, there is reason to believe that under special conditions exposure to government and politics course does have an impact at the secondary level. When White and Black students were observed separately, it became clear that the curriculum exerted considerably more influence on the latter."[11]

In 1968-1969 Rockler studied the effects on adolescent attitudes made by a course focused on political behavior and decision making as compared to a course focused on the structure of government. Attitudes studied in his research were the following:

1. Attitude toward the social studies in relation to other courses.
2. Interest in social studies topics.

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[11] Ibid., p. 966.

3. Sense of political efficacy.

4. Attitude toward law.

5. Attitude toward civil liberties.

6. Attitude toward compromise.

7. Attitude toward politicians.

The study took place at Marshall-University High School in Minneapolis, Minnesota. Ninety-three eighth grade students, selected randomly from the population of the eighth grade students at the school, participated in the study.

Four sections of eighth graders were involved in the experiment. Two randomly selected sections were given the experimental treatment. This consisted of the University of Minnesota Project Social Studies Curriculum Center course, entitled Our Political System. The experimental course focused on political behavior and decision making. It employed a variety of materials developed by the curriculum center. The other randomly selected sections were given a traditional civics course focused on the structure of government. Wherever possible, both the experimental and control groups were taught by the same teaching strategies--the difference in treatment, according to the studies' author, being primarily a difference in goals.

An instrument was developed by the staff of the University of Minnesota Project Social Studies Curriculum Center and modified by the researcher. The instrument, consisting of seven subtests, was based on various instruments used by other researchers in the field of political socialization. Its validity was derived from the validity of other instruments used in the field. Two relia-

bility checks were made on the instrument before it was used. The test-retest reliability coefficients of the sub scales varied between .52 and 83.

Two statistical techniques were used to analyze the data. The analysis of variance was used on the pre-test and post-test data for those subtests in which there was no significant difference at the outset. The analysis of covariance was used on those subtests in which there was a significant difference at the outset. Covariants used were IQ scores, as measured by the Lorge-Thorndike Verbal Intelligence Test, and pre-test scores.

Using the analysis of variance and the analysis of covariance, Rockler found that the experimental course was more effective than the traditional course in changing attitudes toward law, compromise, and politicians. Furthermore, a strong relationship existed between the experimental treatment and a sense of political efficacy at the .0509 level of significance. Contrary to most studies, both treatments had the effect of developing significantly more support for civil liberties. However, the experimental course had no greater impact than the traditional approach.

During 1966-1968, the High School Curriculum Center in Government at Indiana University developed a two-semester, secondary school, political science course on "American Political Behavior." The course was field tested two times. Patrick used the second field test to try to answer three questions:

1. What is the significance and degree of relationship between experiencing American Political Behavior and acquiring particular political knowledge?

2. What is the significance and degree of relationship between experiencing American Political Behavior and acquiring particular skills of critical thinking and inquiry?

3. What is the significance and degree of relationship between experiencing American Behavior and acquiring particular political attitudes?

To determine the effects of the American Political Behavior course, Patrick developed a Political Knowledge Test, a Political Science Skills Test, and six political attitudes scales. The attitudes measured were:

1. political tolerance
2. political interest
3. sense of political efficacy
4. equalitarianism
5. political trust
6. political cynicism

Patrick used a panel of social studies educators and political scientists to certify the content validity of the knowledge and skills tests. He used the Kuder-Richardson test for reliability. He found reliability coefficients of .80 and .69 for the two tests. Patrick used factor analysis on the items of each of the six political attitudes to determine the existence of six distinct attitude dimensions. However, he reported no reliability measures for the attitude scales.

The nine schools which participated in this study were selected from a pool of 50 school systems which had volunteered to use the experimental version of the course during 1969-1970. The students in the experimental and control classes at these schools

were not randomly selected. Students were assigned to the experimental and control groups through the usual administrative procedures associated with non-elective courses. They did not elect to be assigned to the experimental or control classes. The students in the control classes experienced a variety of other social studies courses, e.g. civics, state history, American government and American history. In each community the experimental and control groups revealed similar socio-economic characteristics as indicated by responses to a personal data questionnaire. The knowledge, skills, and attitude measures were administered at the end of the experiment.

Using an analysis of variance, Patrick found a significant difference ($p < .001$) between the experimental and control groups on the Political Knowledge test. The relationship of the experimental course performance on the Political Science Skills test was not as clear cut as the relationship of the experimental course to performance on the Political Knowledge test. The results show an extensive impact on skill development in four communities, a modest impact in three communities, and little or no impact in two communities. The results of the attitude tests showed that the experimental program had little or no impact on the political attitudes of students.

In another intervention study, Button (1972) sought to assess the effects of an experimental curriculum on the political socialization of Anglo, Black, and Mexican-American high school seniors in two high schools in Austin, Texas. More specifically the study

examined the effects of four experimental units of government on student political knowledge and their feelings of efficacy and cynicism.

The experimental units developed for the study emphasized:

1. individual student introspection on their own political socialization
2. an explanation of elitism, political linkages, and institutional racism
3. case studies of political change
4. individual and group field work designed to involve students in the political structure of their city

Students in the contrast groups were taught according to the school district government curriculum guide which emphasized the structures of governmental institutions.

There were two experimental and contrast classes at each of the two high schools. These were taught by four teachers. Two teachers taught the experimental units: two other teachers taught the contrast curriculum. Random assignment of students was not possible, although Button maintained that the classes were "representative in the eyes of the researchers."[12]

A political knowledge test and a political attitude test were administered prior to and after the four units were taught.

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[12]Christine Button, "The Development of Experimental Curriculum to Effect the Political Socialization of Anglo, Black, and Mexican-American Adolescents," (Ph.D. dissertation, University of Texas, 1972), p. 31.

The political attitude test had three political efficacy scales, and one political cynicism scale. Button also used a classroom interaction coding system to test for efficacious behavior. As a further check on the effects of the curriculum, sixty in-depth interviews were conducted from a random stratified sample of students approximately two months after the experimental treatment had ended.

Data from the political knowledge and attitude test were analyzed through analysis of variance and covariance procedures. Data from each of the schools were analyzed separately because of their differing ethnic composition. At school "A", which contained Anglos and Blacks, the researchers found that the experimental classes differed from the contrast classes on three variables. The experimental classes gained in political efficacy and knowledge while the contrast classes increased in political cynicism. There were significant differences in effects in the experimental group between the Anglos and Blacks. The Black students increased in both cynicism and efficacy scores, while Anglo students showed higher knowledge scores and no significant increase in political cynicism. No significant differences were found between the adjusted means of Blacks and Anglos in the contrast group on any of the dependent variables, or between Blacks in the experimental groups and Blacks in the contrast group.

The results at school "B", where classes were composed of Black and Mexican-American students, showed only one significant treatment main effect. The experimental classes increased their

political knowledge test scores significantly. No difference was found because of ethnicity.

Button measured student-initiated interaction through a classroom interaction coding system. She defined student-initiated interaction as a question asked by the student and directed at the teacher or another student. Unelicited statements by a student were also defined as student-initiated interaction. Her assumption was that when students are encouraged to initiate questions and statements, and, if they are free to do so, their sense of personal efficacy would rise.

Button found greater interaction in the experimental classes than in the contrast classes at school "A" ($p=.10$). This difference was not found at school "B".

Interviews conducted two months after the experimental treatment ended tended to support the data collected through tests and the coding system.

This study does show that a curriculum intervention strategy can affect some adolescent students' political attitudes and sense of efficacy. However, the results of the study must be viewed with caution because of the non-random sampling of students and the possibility of treatment confounding.

Marsh (1973) conducted a research study on the effects of a community involvement intervention strategy upon adolescent student feelings of political efficacy. His findings indicate that adolescent student feelings of political efficacy can be improved through such an intervention strategy. His study will

be reviewed more fully under Assumption V.

Assumption V.

Community Involvement as an intervention strategy can affect student attitudes.

During 1970-1972 the National Commission on Resources for Youth (NCRY) evaluated the effects of the Youth Tutoring Youth (YTY) model for In School Neighborhood Youth Corp (NTC) students in Chicago and Washington D.C.

Youth Tutoring Youth is a program in which disadvantaged teenagers with school records of underachievement serve as tutors for other younger children from poverty families. In this program the tutor is encouraged to devise his own methods of learning based upon his personal relationship with his tutee. Assisted by his supervisor, the young tutor develops his own learning materials, prepares his own lesson plans, and makes his own decisions.

Through this study the NCRY and the Department of Labor hoped to demonstrate that by incorporating a YTY component into NYC they could help both the tutors and tutees increase their actual language skills and improve their attitudes towards school, self, and work.

In both cities, pre-testing of tutors and NYC non-tutor controls was administered during the last two weeks of November 1970; post-tests were administered in the first two weeks of May 1971. All tests were scored by the same team. Pre-testing of tutees and non-tutee controls was administered in late October/

early November; post-testing in late April. The researchers used the Lovinger Sentence Completions and Coppersmith Self-esteem scales to measure self image. Both scales had been used in several previous research studies of self image.

The tutor (and Control) sample was taken from 20 Chicago and 11 Washington schools. Tutors were at least 2 years behind in reading level, whereas non-tutor controls were NYC enrollees only one year or more behind in reading level. Thus, the tutors were more disadvantaged than the controls.

The tutee (and Control) sample was taken from 11 schools in Washington and 6 in Chicago and consisted primarily of under-achievers from grades 2 through 6.

The test results were analyzed for covariance with various program factors, enrollee characteristics, and other data, using standard "t" tests and correlation analysis techniques. Lie factors, test sophistication, and differences in samples were taken into account when appropriate.

Since they were being paid, it was expected that all the enrollees would improve in school attendance. However, tutor attendance increased significantly more than did that of non-tutors ($p<.01$). Field interviews suggested that responsibility for young children was a positive factor in reducing absence from school. Other findings were less marked. Testing was administered to measure self-esteem, self-efficacy (a sense of control over one's own life), and maturity levels. Beyond the modest overall gains in self esteem for both NYC tutors and NYC

non-tutors, those tutors who were able to improve their writing ability and improve their school attendance also achieved statistically greater self esteem than other tutors and non-tutors ($p < .05$). Unhappily, those students whose school attendance increased, but whose competence in English did not, demonstrated their futility through an actual decrease in self esteem.

Overall tests for self efficacy (i.e. sense of control over conditions which influence success or failure in the world at large) were inconclusive because global measures were not situation specific, and new instruments to tap competencies more directly related to the experience will have to be devised. Since the YTY and NYC programs were part of the school authority system, only those with rebellious patterns (near to dropping out) increased significantly in self-efficacy. However, some slight benefit was noted for those who found tutoring a successful experience.

Ego-development levels correlated quite well with self-efficacy improvement. The higher the ego-development level the greater the positive change in efficacy; the lower the ego-development level the greater the improvement in language skills, grades, and attendance. Thus, YTY had compensatory effects for the most disadvantaged, as well as augmentary effects for the most mature.

In terms of program characteristics, there was some indication that there was a positive effect when YTY precepts of autonomy, creativity, and responsibility were upheld. The more the supervi-

sor understood the program, conferred with his tutors, and permitted them freedom of choice, and the more time the tutors were given alone with their tutees, the greater the positive changes in grammar score, ego development, and self-esteem.

In conclusion, the YTY program had a favorable impact on the participating NYC enrollees. In terms of improving language skills, self-concept, and attendance, the program was definitely more effective than the standard In-School NYC job slot. Also, low maturity students tended to benefit as much as others who participate in YTY.

Kelly (1973) studied the effects of a helping experience upon the self-concept of the helper. His study was directed toward the exploration of one of the usually unstated premises by which many people who function as helpers of others operate: in the helping of other people, the person in the helping role enhances the process of personal change for himself. It was hypothesized that therapeutic behavior with regard to the helper was likely to generate change in self-concept and other dimensions related to self-perception. The study was conducted at a small Catholic college in rural Pennsylvania during the 1971-1972 academic year. Twenty untrained freshman students, committed to working as volunteer helpers in face-to-face relationships with retarded children, were randomly selected for observation. This group was compared to two other randomly selected groups: (1) a group of freshman students committed to general service projects of a less personal nature in the campus community and; (2) fresh-

man students identified by interviews as uncommitted to any ongoing service or helping projects of an altruistic nature.

Two instruments were used for making observations of the three groups at the inception and at the completion of the study. One was a simple card sort of attributive statements, the OQ Sort, by which subjects indicated their self-concepts, concepts of others, and self-ideals. The High School Form of Bill's instrument of Adjustment Values was used to obtain other measures of self-concept. The Bill's instrument has two frames of reference: "Self perceptions" and "Perceptions of others toward you." There are three sub-scales for each frame of reference. The sub-scales related to "Self perceptions" measure self description, self acceptance, and self ideal. The sub-scales related to "Perceptions of others toward you" measure how you believe others would rate these same dimensions.

Verification of the effect of helping relationship upon self-concepts and related perceptions of helpers was sought through comparisons among and between the three observed groups over the six month duration of the study.

The three groups of participants were compared at the outset of the study and not found to be significantly different in admission criteria and self-concepts ($p < .05$). Using an analysis of variance, Kelly found that the helper group showed the greatest gain in self-perception and self-satisfaction scores of the three groups ($p < .01$). The helper group also showed the greatest gain in scores on two sub-scales relating to "how others perceive you"

($p < .01$). The helper group showed the least discrepancy between self-perception and self-ideal of the three groups ($p < .01$). Among the groups, the noncommitted group of students made the fewest mean changes for the dimensions pertaining to self and others.

The study generally demonstrated that college freshmen who helped others on a face-to-face basis underwent greater positive change in self-concept and other related dimensions than did students who helped in service projects. Students who helped on a face-to-face basis underwent an even greater change in comparison with students who did not participate as helpers at all. Finally, the study further demonstrated that students who helped in service projects underwent some greater measure of change in a positive direction than did the non-committed students.

During the summer of 1972 Sager conducted an exploratory study examining the question, "Do the attitudes, values, and self-concepts of senior high youth change as a result of working as full-time volunteers with institutionalized mentally retarded people?" The subjects were 17 young women and 5 young men of the Youth Service Corps (an inter-denominational volunteer service organization of the American Lutheran Church). They spent nine weeks during the summer of 1972 working at Fairbault State Hospital, Fairbault, Minnesota, and Woodward State Hospital-School, Woodward, Iowa. Their experience consisted of a 40 hour week with the retarded, serving as assistant ward attendants, doing therapy on a one-to-one basis for an hour daily, and facilitating program

specialities plus a 60 hour weekly community experience of living together as Corpsmen.

Sager utilized a battery of seven personality inventories:

1. Tennessee Self Concept Scale
2. Study of Values
3. Rokeach Dogmatism Scale (Form E.)
4. Berger Acceptance of Self and Others Scale
5. Multiple Affect Adjective Check List
6. Purpose in Life Test
7. Youth Service Corps Semantic Differential

The Tennessee Self-Concept Scale includes 10 sub-scales. Sager found the corpsmen significantly increased their scores ($p < .05$) on the self-esteem, self-satisfaction and social sub-scales. (The social sub-scale measures the adequacy of self in social interaction with others). The other sub-scale score increases were not significant. Sager developed his own Youth Service Semantic Differential Scale. This scale consisted of five sub-scales and a total score. He found the corpsmen significantly increased their scores on the sub-scales of "myself as a corpsman", "my fellow corpsman", "the mentally retarded", and their total score ($p < .05$).

Thus in Sager's view the corpsmen thought better of themselves, of their fellow corpsmen, and of the mentally retarded at the conclusion of their volunteer experience. The findings on the other sub-scales as well as the findings on the other personality inventories were not statistically significant.

Because Sager was unable to find an appropriate control group, he ran rank order correlation tests on his pre and post results. He assumed that if the pre and post rank orders on the measures were not statistically different, any increase on the scale scores would be due to the intervening treatment and not to chance. He found that 30 out of 34 total sub-scales were not statistically different in their correlation coefficients ($p < .05$).

Sager concluded from his study that:

1. Youth 's perceptions of themselves do change. After an intensive summer's experience, youth's self-esteem increases: they like themselves more, feel more valuable and worthwhile, and have greater self-confidence. Also, they feel more self-satisfied and self-accepting.
2. Youth involved in the program feel more adequate and worthwhile in their human interaction, especially with their peers and with the mentally retarded, than they felt previous to their involvement in the program.

An experimental course which required political involvement by high school seniors was evaluated by Marsh (1973). The course provided opportunities for twenty-five high school seniors to become involved in community affairs. During class time, these students were released from school to work in small groups on a community issue of their choice. Along with information gathering and service activities, the students could also take political action.

Marsh tried to assess the impact of the course in two general areas:

1. What was the impact of the experimental course on the political attitudes of students?

2. What was the power of two situational variables, (the political issue involved and the perceived risk in getting involved) as predictors of the willingness of high school students to get involved in political activities?

A post-test only research design was used to assess the first goal. Experimental students were matched with controls from the senior class of the same school on I.Q. and class rank. The dependent variables were general willingness to take risks, political participation, political interest, civic tolerance, political efficacy, political trust and perceived riskiness of political involvement.

For the purpose of this research, Marsh developed the Perception of Community Involvement Risk and Willingness to Participate scales. He ran test-retest reliability on these and found them to be .92 and .89 respectively. The other political attitude measures had been used in a number of previous studies.

The results showed that experimentals were superior to controls on political participation and political interest ($p < .05$). The two groups were not significantly different on the other variables.

To examine the power of two situational variables, two sets of written stories were given to each student. One set of

stories related to passage of a constitutional amendment granting voting privileges to 18 year olds, the other set to air pollution situations. Each set of stories had two versions: ones where the risk of involvement were described as high, the other where the risk level was low. Following each study, students indicated their willingness to participate in a set of political activities in support of that political issue under the described risk level.

Regardless of the issue or risk level, experimental students were more willing to become involved than were control students. For both of the air pollution situations, the difference between experimental students and control students were significant ($p < .05$). In the other two situations, the differences were not statistically significant but did favor the experimental group. The course appears to have promoted both a general interest in politics and a specific willingness to carry out certain activities in support of political issues.

The willingness scores for both groups were affected by changes in risk level or issue involved. For the two versions studied, risk level changes as opposed to issue changes had a greater impact on willingness scores for the control group than for the experimental group. Findings of research on risk taking helped explain these differences.

Marsh concluded that community involvement can affect student political attitudes, and that a student's willingness to participate is influenced by the situational variables of perceived risk level and political issue.

Because Marsh was unable to randomly select the experimental and control groups and because no pre-test was given, the study's conclusions must be considered tentative.

Assumption VI.

A positive self-concept is a necessary component for civic competence.

While definitive research is lacking to support this assumption, there is evidence that this assumption is shared by both social studies educators and social scientists.

The Detroit Citizenship Education Study defined the good citizen as a person who:

1. gives allegiance to the ideals of democracy
2. recognizes and endeavors to help in the solution of social problems
3. is aware of the importance of meeting basic human needs
4. recognizes the interdependence of all people in family, school, community, national, and world relationships
5. possesses and uses knowledge, skills, and abilities to facilitate the process of democratic living.[13]

This study, extending over a period of 5 years, came to the conclusion that a person's emotional adjustment was the key factor in the quality of his citizenship. The study concluded:

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[13]Arnold R. Meir, Florence Damon Cleary, Alice M. Davis, A Curriculum For Citizenship (Detroit: Wayne University Press, 1952), pp. 14-16.

> Good citizens are made. The environments into which children are born, the kinds of situations society provides for them, the social and emotional climate in which they live--these influences together with the constitutional make-up of children determine the kind of citizens they become.
>
> Environments that provide an emotionally satisfying atmosphere help to produce good citizens. Children, as well as adults, who are emotionally adjusted are generally secure and happy individuals. They are concerned about the welfare of others. They accept their responsibilities and try to carry them out. They are the persons with whom one likes to associate. They are in a state of good mental health.[14]

The authors, while recognizing that their evidence was not extensive, had the firm belief that it was valid enough for drawing their conclusion. They did, however, caution against complete acceptance of their findings because of the short duration of the study, and more importantly, because much of their evidence was based largely on observations and was thus subjective. They saw their work as representing a pilot study of the relationship between emotional adjustment and good citizenship.

Limitations of the Literature

As the author reviewed each of the before-mentioned studies, specific limitations were noted. Taking a broader perspective, certain general conclusions seem warranted.

One limitation is that there has been a lack of tightly controlled research related to certain assumptions of this thesis. The Detroit Citizenship Study and the Columbia Education project,

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[14]Elmer F. Pflieger and Grace L. Weston, Emotional Adjustment: A Key to Good Citizenship (Detroit: Wayne University Press, 1953), p. 146.

while both valuable, illustrate this limitation.

Many of the studies reviewed were limited because of the lack of random sampling and/or control groups. The studies conducted by Sprinthall and Erickson both examined the effects of intervention strategies upon students in elective courses. Because the students studied chose to take these courses, they cannot be considered random samples. No control group was utilized in the Erickson study, leaving open the possibility that the reported changes could have taken place because of factors outside the experimental treatments. During the duration of the Erickson study, the students were exposed to extensive mass media coverage of the Women's movement. Thus it would be extremely difficult to differentiate the effects between the curriculum intervention strategy and extraneous factors upon students' attitudes. Patrick, in reporting his research, indicates that a primary limitation in his study was the lack of a truly random sample. He states, "...it cannot be maintained that every student involved in this study had exactly the same chance as every other student to be a member of either a control or experimental group....However, responses to a personal data questionnaire indicate that the experimental and control groups were comparable."[15] In the Sager study, students had to apply and be accepted to work as Youth Service Corpsmen. The demands made of the corpsmen

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[15]John J. Patrick, "The Impact of an Experimental Course, American Political Behavior on the Knowledge, Skills, and Attitudes of Secondary School Students," Social Education (February 1972), p. 169.

were such that only very highly motivated students would wish to participate. Sager was also unable to have a control group against which to measure the reported self-concept changes of his experimental group.

Closely related to the limitation of the non-random selection of the experimental and control groups is the non-representativeness of some of the experimental groups. In some instances we have only the researcher's claim that the groups studied represented a broad cross section of student characteristics (Button and Erickson). Kelly's study took place at a small Catholic liberal arts college. Generalizations drawn from these populations would have to be replicated through further studies of dissimilar populations.

Some of the studies utilized instruments which were developed by the researchers themselves. These instruments were not always validated nor were reliability tests performed. The Student Terminal Appraisal, developed by the Columbia Education Project, while providing valuable insights into possible learning outcomes, was not validated nor were reliability tests reported. Button developed a political knowledge test for use in her study of curriculum intervention effects upon student political knowledge and attitudes. She fails to indicate in her study whether or not she attempted to validate the test; no reliability measures were reported.

In some of the reviewed studies the effects of independent variables were blurred. In the Detroit Citizenship Study the

research design was loose, making it impossible to determine which of the independent variables might have affected the dependent variables. In the Button study, the researcher taught only the experimental treatment at one of the schools. She did not teach the control groups at either of the two schools. Because she did not teach both the experimental and control groups, a question remains as to whether the reported changes in the experimental group's knowledge and attitudes were due to the curriculum intervention or to the personal and professional characteristics of the researcher.

A further limitation of the reported studies is that in some of the studies the objectives of the experimental and control groups were different (Patrick and Kelly). Thus, the studies were not direct comparisons between experimental and control groups as to which treatment better reached the same objectives. The findings can, however, indicate what experimental and control group students learned or did not learn as measured by the instruments used in the respective research studies.

Regardless of the statistical techniques employed in any study, the findings will be only as valid as the degree to which the basic assumptions of sound research design are met. Where studies have not met the criteria for sound research design, researchers must carefully spell out the limitations of their findings. While statistical techniques may help to alleviate design inadequacies, they can not substitute for good research design.

Implications of the Literature for the Study Reported in this Thesis

After reviewing the literature related to the assumptions for the study, it became clear that there is a need for further research to explore more carefully the effects of a community involvement intervention strategy upon adolescent students' self-esteem, sense of political efficacy and sense of social responsibility.

Although comprehensive citizenship education studies have been undertaken and reported previously, these studies have failed to use rigorous research designs. Thus their subjective findings need to be studied more carefully.

While increased social participation by students in community affairs is being advocated by many segments of our society, little research exists to either support or deny the worth of community involvement education.

Past studies suggest that student self-esteem can be improved through curriculum and community involvement intervention strategies; however further research is needed to determine if alternative forms of community involvement can also bring about improved student self-esteem.

The Marsh study gives some evidence that an elective course utilizing a community action strategy can affect high school students' sense of political efficacy. The question yet remains, can a community involvement strategy with broader service opportunities for students also affect students' sense of political efficacy, self-esteem and social responsibility?

As already noted, many of the research studies, which related to the assumptions of this study contained design limitations. While it was not possible to avoid all of the design problems of these studies, the present researcher has attempted to alleviate as many as possible. Because it was neither possible to select students randomly to participate in the community involvement program nor to have a valid control group, the author of the present study chose to take pre and post measures on the senior class students at two schools and to perform multiple regression analyses on the change scores (post-prescores), entering first a series of independent variables. The final entry of the dummy variable participant, non-participant indicated the contribution of participation to change scores on the criterion measures. In addition step-wise multiple regression analyses were performed to see which of the independent variables, if any, would help predict participant change scores.

It is important to realize that such predictive value does not demonstrate causation; both the choice to participate and the change in criteria scores can result from a common set of student characteristics. This design, however, does incorporate adjustments for some of the more likely student characteristics through their prior entry into the regression.

Instrumentation was a problem for several of the previously reported studies. The validity and reliability of the test instruments were often not reported. Recognizing the importance of both the validity and reliability of test instruments, the

present researcher chose to use some scales for which validity and reliability had already been determined. In the review of test instruments only one measure was found relating to a sense of social responsibility. No validity or reliability data were reported. Because of this and because this scale did not contain all of the dimensions desired to evaluate the community involvement program, additional scales were developed. Test-retest reliability and tests for internal consistency were run on these scales. Further explanations of scale modification and development will be found in chapter three.

As was true in the Patrick and Sager studies, this study does not measure the difference between two different treatments aimed at similar goals. This study does attempt to ascertain whether or not an experimental treatment of community involvement brings about changes in student self-esteem, sense of political efficacy, and sense of social responsibility.

Summary

This chapter has reviewed literature related to self-esteem, citizenship education, and political socialization. This review of the literature was organized around the assumptions of this thesis. These assumptions are:

I. There is a need for public schools to help students develop improved self-concepts, a sense of political efficacy, and a sense of social responsibility.

II. Intervention strategies can improve the self-esteem of adolescents.

III. Intervention strategies can affect the sense of social responsibility of adolescents.

IV. Intervention strategies can affect an adolescent's sense of political efficacy.

V. Community involvement as an intervention strategy can affect student attitudes.

VI. A positive self-concept is a necessary component for civic competence.

Finally this chapter has discussed the limitations and implications of this literature.

CHAPTER III

DESIGN OF THE STUDY

This study was designed to explore the effects of community involvement upon high school seniors' self-esteem, sense of political efficacy, and sense of social responsibility. Previous research studies have shown mixed results as to the effects of curriculum intervention upon adolescent self-esteem and sense of political efficacy. Presently, little research exists on the impact of curriculum intervention strategies upon adolescents' sense of social responsibility. Indeed, few of the claims made by community involvement advocates have been substantiated by research findings.

Setting

The study was conducted during the school year 1971-1972 at Armstrong Senior High School and Cooper Senior High School, both part of Independent School District 281 in the Northwestern suburbs of Minneapolis, Minnesota. The student body at both high schools in 1971 was predominately white. "Sight counts" at both schools indicated that only 1% of the students were racial minorities. Census tract data show that the median family incomes for Armstrong and Cooper in 1970 were $13,700 and $11,750 respec-

tively;[1] the national median income for white urban families was $10,629.[2] The median family income for Hennepin county, in which District 281 is located, was $11,800.[3] Less than three percent of the families residing in District 281 had incomes below the poverty level; the national percentage for white urban families living below the poverty level was 6.9% in 1969.[4]

Subjects

The students in this study included the total senior class membership of each high school with the exception of students in two special programs. Both schools had special programs for the lowest 5% in academic achievement and these students were not eligible for the community involvement programs. Both schools also used modular scheduling, under which a student's day was composed of both structured and unstructured time modules; students who were not able to use their unstructured time productively (approximately 5%) were assigned by the school administration to "structured" classes and were not eligible for the community involvement program.

The students were given a choice of doing an in-depth library

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[1] U.S. Bureau of the Census, Census of Population and Housing: 1970 Census Tracts Final Report PHC (1)-132 Minneapolis-St. Paul, Minn. SMSA. pp. 118-134.

[2] U.S. Bureau of the Census, Census of Population: 1970 General Social and Economic Characteristics Final Report Pc(1)-C1 United States Summary, p. 398.

[3] Community Health and Welfare Council (Minneapolis, Minnesota), A Demographic Profile of Thirty Three Communities in Hennepin County, p. 93.

[4] Idem, Final Report PHC(1)-132 Minneapolis, St. Paul, Minn. SMSA. pp. 118-134.

research project or of doing volunteer work for community agencies. The community agencies included elementary and junior high schools, municipal recreational departments, special cause groups (e.g., Ban the Can), political candidates, physical rehabilitation centers, and nursing homes. Students who chose to do volunteer work agreed to give 2 hours per week for a period of 10 weeks to a community agency of their choice.

Results from a post-experience questionnaire indicated that a substantial number of students who had originally agreed to give 20 hours of volunteer community service had not met this minimum requirement. These students were reclassified as non-participants.

Table 3:1 shows the percentage of participants and non-participants for both high schools.

TABLE 3.1

Percentage of Eligible Participants and Non-Participants by School

	Non-Participants		Participants
	non-volunteers	volunteers (lacking minimum time requirements)	volunteers (meeting minimum time requirements)
	%	%	%
Armstrong (N=304)	17.1	23.0	59.9
Cooper (N=391)	26.0	23.0	51.0

The rationale for making this re-classification was the belief that the limited involvement of these students would have had no appre-

ciable effect on their citizenship attitudes.

Only those students for whom both pre and post scores were available (approximately 75%) were included in the analysis.

Treatment Proceedures

The twelfth grade social studies curriculum at both Armstrong and Cooper High Schools was essentially a "problems of democracy" approach. In order to give a clearer focus to the curriculum, the seven social studies instructors posed the following question for their students to answer: "How do you bring about social change through our political and social institutions?". The curriculum emphasis during the first semester was on social institutions (schools, churches, hospitals, etc.) and during the second semester was on political institutions. The social studies instructors developed the community involvement program as a way to make the study of social and political institutions more real for their students. During the third week of the Fall, 1971 semester, a community involvement fair was held at the two high schools. Community agencies were invited to send representatives to each school and set up booths. Students were given time to attend the fair and ask about the purposes and needs of the community agencies. The agency representatives and the students worked out mutually agreeable times and responsibilities. The community agencies agreed to place students in face-to-face helping situations with clients and not to use them as clerks, typists, or for such jobs as envelope stuffing or phone answering.

Because both of the high schools were on modular scheduling, some of the students were able to perform their volunteer work during the school day; other students worked after school, evenings, or on weekends. Most students checked in with a designated person at their respective community agency and attendance records were kept by the agency.

In addition to readings on social problems, the social studies instructors used audio-visual materials, instructional simulations, role-playing techniques and outside speakers. These classroom activities, data gained through in-depth library research by non-volunteers, and concrete experiences of volunteers were brought together through small group discussion held each week. These small groups of 10-15 students contained both non-volunteers and volunteers from several different agencies.

In helping students to analyze social institutions, the seven instructors used a series of key questions:

1. Why were these social institutions created?
2. What are the goals of these social institutions?
3. How well are these goals being met?
4. What problems do these institutions have in meeting their goals?
5. What changes would you recommend for these institutions in order for them to better meet their goals?
6. What kinds of problems would be encountered in bringing about these recommendations?

On a more personal level the social studies instructors asked the volunteers to reflect on their experience by asking themselves:

1. What are you learning about yourself as you are doing your volunteer service?
2. How do you feel about what you are learning about yourself?
3. Would you do volunteer service again?

At the conclusion of the fall semester, the questions about social institutions and about the students' personal experiences served as the basis for synthesizing discussions led by the instructors.

Measures

Criterion Variables

Self Esteem Scale. This scale (Rosenberg, 1965) was designed to measure attitudes toward the self along a single favorable to unfavorable dimension and was constructed for use with high school students. The scale consists of 10 Likert scale items each allowing one of four possible responses: strongly disagree, disagree, agree, and strongly agree. The 10 items are scored to yield a seven point scale (0-6). A high score would indicate a high self esteem.

The scale was developed using a sample of 5,024 high school juniors and seniors from 10 randomly selected public high schools in New York State. Rosenberg reports a test-retest reliability of .85 for a group of college students retested after two weeks.

To assess the validity of his scale, Rosenberg used chi-square analysis to compare self-esteem scores with scores on other social-psychological measures:

1. Fifty young, adult, "normal" volunteers employed by the National Institute of Mental Health filled out the Self Esteem Scale and were independently rated by ward nurses on Leary Scales (Leary, 1957).[5] An inverse relationship was found ($p < .05$) between high self-esteem scores and depression items.
2. Using a measure of neuroticism developed by the Research Branch of the U.S. Army in World War II, Rosenberg found an inverse relationship ($p < .05$) between high self-esteem scores and psychosomatic symptoms.[6]
3. In a sociometric study involving 272 high school seniors, Rosenberg found a positive relationship ($p < .05$) between high self-esteem scores and choices for class leaders.[7]

Rosenberg did not report the strength of the relationships in these studies, but only the p value for the chi square tests.

Political Efficacy Scale. Campbell et al. (1954) define political efficacy as "the feeling that political and social

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[5]The Leary scales consist of a series of interpersonal items designed to characterize an individual. The rater is simply asked to say whether the subject is or is not like the word or phrase presented.

[6]Morris Rosenberg, Society and the Adolescent Self-Image (Princeton: Princeton University Press, 1965), pp. 22-24.

[7]Ibid., pp. 25-28.

change is possible, and that the individual citizen can play a part in bringing about this change." Their political efficacy scale originally had 5 items but one item was dropped by the scale's developers because of its ambiguity. The developers report that the relationship of the Political Efficacy Scale to the Index of Political Participation indicated that the higher one's sense of political efficacy, the higher the level of his reported participation in the 1952 election.[8] They drew this conclusion on the basis of tabular data but did not compute chi-squares, correlation coefficients, or significances. They also did not report any internal consistency or test-retest reliability on the Political Efficacy Scale.

Because this scale had been used extensively in prior political socialization research, and because political efficacy was one of the dimensions which was to be examined in this thesis, I decided to use the scale even though no statistical data had been reported to substantiate its reliability or validity. I chose to use it provisionally and run reliability tests on the scale myself.

Social Responsibility Scale. This scale (Berkowitz and Lutterman, 1968) attempts to assess a person's orientation toward helping others even when there is nothing to be gained from them. Six of the eight items in the scale were drawn from a social

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[8]Angus Campbell, Gerald Gurin, and Warren E. Miller, The Voter Decides, (Evanston: Row Peterson and Company, 1954), pp. 187-194.

responsibility scale for children derived by Harris (1957); these in turn are similar to items constructed earlier by Grough et al. (1952). The items use a Likert scale format with four response options from strongly disagree to strongly agree. Four items are worded positively and four items are worded negatively.

The scale was constructed on the basis of item analyses with samples of college students. The developers contend that "Analyses of the responses indicated that the...Social Responsibility Scale had a very satisfactory internal consistency."[9] However, they do not report any statistical data to support this claim. When reviewing the literature for social responsibility scales I found the Berkowitz and Lutterman scale to be the only one of its kind. Consequently I decided to use it provisionally and to run reliability tests on the scale myself.

Community Responsibility Scale. Because the Social Responsibility Scale did not contain all of the dimension which I hoped to evaluate in the community involvement program, I developed a Community Responsibility Scale. (See Appendix I for scale items.) The Community Responsibility Scale attempts to measure attitudes towards helping one's immediate neighbors whereas the Social Responsibility Scale has more of a "serve one's country" focus. The Community Responsibility Scale is composed of 8 items with a Likert format. Four items are worded positively and four

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[9]Leonard Berkowitz and Kenneth G. Lutterman, "The Traditionally Socially Responsible Personality," Public Opinion Quarterly, 32 (1968), p. 174.

negatively. Persons having a low score would not see themselves as helping others nor would they have a desire to do so. The reliability and internal consistency of the scale are reported in chapter four.

Background Variables

Information on background characteristics was derived from Minnesota Statewide Testing reports and pre and post study questionnaires. Background information included:

Socio-economic status

Ability

Sex

Participation in Cooperative Education Programs (CO-OP)

Previous volunteer experience.

Previous political, sociological, and educational research have shown that socio-economic status, scholastic ability, and sex are related to self esteem and sense of political efficacy. Participation in CO-OP programs was examined because the additional time demanded of students in this work-study program could have reduced the possibility of their choosing to be participants in the community involvement program. Previous volunteer experience was examined to see if students who had already done volunteer work would be more or less likely to choose to participate than students who had not previously done volunteer work.

Socio-economic status. Specific income data for the subjects were not available so socio-economic status was represented by

father's occupation, father's education, and mother's education. Information on these variables came from the Minnesota Statewide Testing Program. This program uses eight categories in characterizing occupational status:

1. Professional
2. Owns business
3. Office work
4. Sales
5. Farms
6. Skilled trades
7. Factory worker
8. Other

Educational attainment is broken down into nine categories:

1. Did not attend
2. Some grade school
3. Eighth grade
4. Some high school
5. High school graduate
6. Business/trade school
7. Some college
8. College graduate
9. Extra college degrees

Ability. The Minnesota Scholastic Aptitude Test (MSAT) was

used as an indicator of scholastic ability.[10] The MSAT is administered to all high school students in the state of Minnesota during their junior year.

Previous Volunteer Experience. The pre test evaluation instrument elicited the amount of volunteer experience contributed by participants and non-participants during the year previous to the community involvement program. The time contributed was broken down into four categories:

1. 0-10 hours
2. 11-25 hours
3. 26-52 hours
4. 53+ hours

Statistical Analyses

The statistical analyses included:

1. A pilot reliability study
2. Scale modification
3. Chi-square tests for differences in background characteristics of participants and non-participants
4. Analysis of variance to measure effects of program participation on attitude changes

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[10]Wilbur L. Layton, "Construction of a Short Form of the Ohio State University Psychological Examination," Unpublished article, University of Minnesota, 1954 and Swanson, Edward O., "New Forms of the MSAT Being Developed," Student Counseling Newsletter, Vol. 18 No. 1 (November 1965), pp. 3-6.

5. Multiple regression on program effects adjusting for background differences
6. Stepwise multiple regression on participant change scores adjusting for background differences

Pilot Reliability Study

In order to confirm the reported reliability of the Self Esteem Scale and to determine the previously unreported reliabilities of the Political Efficacy, Social Responsibility, and Community Responsibility scales, a preliminary analysis was performed on responses to the instrument on two occasions (2 weeks apart) by 67 high school seniors at Osseo High School in Osseo, Minnesota. Osseo is a community just northwest of School District 281 and serves a socio-economic population similar to the schools in this study. To check on the internal reliability of the scales, Cronbach's alpha coefficients of internal consistency were computed for each of these scales for the Osseo sample. (As a further check on the internal consistency of the scales, Cronbach's alpha coefficients were subsequently computed for the pre test scores of the Armstrong and Cooper samples.) Test-retest correlations were computed to determine the stability of the scores.

Scale Modification

After considering the internal consistency and test-retest stability of the Community Responsibility and Social Responsibility scales, I decided to attempt a synthesis of the two scales. Pearson correlations were run on the Osseo pretest data between

the CR and SR scores and the 16 individual test items comprising them. Items from the CR scale that were sufficiently correlated with the SR score to increase its alpha coefficient were added to the SR scale; similarly, some items from the SR scale were added to the CR scale. These modified scales were labeled MSR and MCR. Since this process would produce more highly correlated scales than before, the strategy was to choose between the two augmented scales rather than to use them both in the analysis of data.

The factor analysis approach has the opposite intent -- to decompose the item set into separable dimensions that can all be used. Factor analyses were run on the 16 items to determine the number of attitude dimensions measured by these items. On the basis of these analyses, two new scales were created which had the advantage of being almost entirely independent of one another. These new scales, labeled Involvement Efficacy and Altruism, could be construed as tapping separable components of responsibility and were used in subsequent analyses.

Background Characteristics

Chi square tests were used to analyze differences in the initial background characteristics of participants and non-participants, although t-tests were performed on the MSAT scores.

Effects of Program Participation on Attitude Change

A one-way analysis of variance among five groups was performed on student change scores (post scores - pre scores) for each of the

five scales (SE, SR, MCR, IE, AL). The five groups were differentiated on the total number of hours of volunteer service during the program:

1. non-participant
2. participant with less than 11 hours
3. participant with 12 to 25 hours
4. participant with 26 to 52 hours
5. participant with more than 53 hours

Additional analyses of variance were run on the pre-post change scores for two groups of students; those who had not volunteered or who had failed to meet the minimum requirement, and those who had met the minimum volunteer service requirement (that is, groups 1 and 2 were contrasted to groups 3, 4, and 5). T-tests were used for these contrasts, as special cases of analyses of variance for two groups.

Multiple Regression on Program Effects Adjusting for Background Differences

The intent of the study was to compare participants and non-participants as to possible attitude changes as a result of participating or not participating in a community involvement program. Because the community involvement program was not required at Armstrong and Cooper High Schools, it was not possible to select students randomly for experimental and control groups. Rather, the approach was to take pre and post measures on the senior class students at the two schools and perform a multiple regression analysis for each change score. The last-entered

variable can be assessed for its ability to predict the residual of all the other predictors -- i.e., the part of the change that can not be predicted by a linear combination of the background variables. The final entry of the dummy variable participant/non-participant indicated the contribution of participation for predicting pre-post changes in the criteria scores, after regression "adjustment" for all of the background variables. Background included the following series of independent variables:

1. Sex
2. Father's occupation
3. Father's education
4. Mother's education
5. MSAT raw score
6. High school rank (%ile)
7. Participation in Cooperative Education Programs (CO-OP)
8. Previous volunteer experience

Multiple regression analysis was performed on the change scores for both Armstrong and Cooper samples.

Effects of Background Differences on Change Among Participants

Further regression analyses were run on the change scores for participants alone in order to determine which of the independent variables correlate best with change scores. Such information would allow teachers to make more accurate judgments as to which students would receive the greatest benefit from participating in the Community Involvement Program. Independent variables were entered stepwise in the order given above. The order in which the

independent variables were entered was determined by my judgment as to which of the variables would have had most enduring influence on the student.

Summary

This chapter describes a research design to test the effects of a community involvement intervention strategy upon high school seniors' citizenship attitudes.

The students who were involved in this study come from predominately white middle class suburban homes.

A number of attitude measures were used to test the effects of the four month community service experience.

Since it was not possible to randomly select students for the study, background characteristics of participants and non-participants were adjusted through the use of multiple regression analysis. Attitude change scores of participants were also analyzed through stepwise multiple regression in order to determine which background characteristics would most likely "predict" change scores.

CHAPTER IV

ANALYSIS AND RESULTS

The presentation of results in this chapter parallels precisely the outline of the study design given in Chapter 3. Results are reported on the reliability of the evaluation instruments, the program effects on participants and non-participants, and predictive variables for participant change scores.

Reliability of the Evaluation Measures

Self-Esteem Scale

The Osseo sample showed a test-retest correlation on the self-esteem scale of .64; while the Cronbach alpha coefficient of internal consistency on the pre test was .51. The internal consistencies for both Armstrong and Cooper samples were .64. (The lower value at Osseo may have resulted in part from some restriction of variances in the Osseo population -- the standard deviation at Osseo was 1.3 compared to about 1.5 for Cooper and Armstrong.) These low internal consistencies are not uncommon for attitude measures, but do not indicate a strong measure.

Political Efficacy Scale

After data had been collected from the Osseo, Armstrong, and Cooper samples, I found a study which analyzed and critically evaluated the political efficacy scale (Lynch 1974). Lynch concluded that the scale was invalid because of item vagueness and

social desirability response set bias. In his study, Lynch asserted that the scale's questions "fail to form an acceptable scale according to rigorous criteria for scalability which control for spuriousness," and were neither "longitudinally nor demographically robust",[1] as their scaling varied between samples and among demographic groups.

Before discarding the data obtained from the political efficacy scale, I decided to analyze the scale myself for test-retest reliability and internal consistency. The test-retest correlation from the Osseo sample was .51, and the Cronbach alpha coefficient for internal consistency on the pre test was .23. Cronbach alpha coefficients for the Armstrong and Cooper samples were .41 and .49 respectively.

Because of Lynch's criticisms of the scale's validity and because of these low reliability values, the political efficacy scale was deleted from further analysis.

Social Responsibility Scale

The Osseo sample showed a test-retest reliability of .70; the Cronbach alpha coefficient of internal consistency was .56, indicating that the scale could perhaps be improved by incorporating additional items. Reliability checks were not run on the Armstrong and Cooper samples until after the scale was modified.

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[1]Michael Lynch, "A critical Analysis of the Survey Research Center's Political Efficacy Scale", Dissertation Abstracts, 35:1, p. 1183.

Community Responsibility Scale

The Osseo sample showed a test-retest reliability of .69; the Cronbach alpha coefficient for internal consistency was .56, indicating a potential similar to that of the Social Responsibility Scale. As was the case for the Social Responsibility Scale, reliability checks were not run on the Armstrong and Cooper samples until after the scale was modified.

Scale Modification and Selection

Because the internal consistencies of the Social and Community Responsibility Scales were low, I attempted to modify both of the scales. Both scales attempt to measure a person's sense of responsibility to others as well as a sense of personal efficacy. The Pearson correlation coefficient between the pre CR scores and the pre SR scores of the Osseo sample was .69, demonstrating that the two scales are substantially related.

In order to increase the internal consistencies and test-retest reliabilities, item correlations between the individual items of each scale and the other scale were computed from pre-test data, and items from one scale that were highly correlated with the other scale were added to that scale. Four items from the SR scale were highly correlated with the pre CR score and were added to the CR scale, thus creating a new twelve-item scale entitled Modified Community Responsibility (MCR). Three items from the CR scale were highly correlated with the pre SR score and were added to the SR scale thus creating a new scale entitled the Modified Social Responsibility Scale (MSR). One item from the original SR

scale ("At school I usually volunteer for special projects") showed a very low correlation with the pre SR score and was dropped from the MSR scale which now contained ten items.

Table 4.1 shows the item overlap and changes among the responsibility scales. Seven of the 10 MSR items are also included in the 12-item MCR scale with the consequence that MSR and MCR are now even more strongly correlated than SR and CR (.85 rather than .69 on the Osseo sample).

In order to determine whether MCR and MSR represent more than a single attitude dimension, the items from these scales were pooled and a principal components analysis was performed on the 15 items. The factor analysis showed two significant components (by the usual Kaiser[2] criterion of eigenvalue < 1.0). The usual Varimax rotation[3] produced two dimensions that can be characterized as "involvement efficacy" and "altruism". "Involvement efficacy" items probe the extent to which students feel that they can effect changes in the lives of others through their own efforts while "altruism" items probe the extent to which students feel that they should help others. The distinction between these scales may not be so much action versus idealism

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[2]Henry J. Kaiser, "The application of electronic computers to factor analysis", Educational and Psychological Measurement, 1968, pp. 141-151.

[3]Varimax rotation is the most commonly used method of rotation. It tends to produce a factor pattern that is more readily explainable than the initial pattern. (Statistical Package For The Social Sciences, Norman H. Nie et al, New York: McGraw-Hill, 1971, pp. 484-485.

as negative thinking versus positive thinking; all of the altruism items are worded positively, all of the involvement efficacy items are worded negatively. Figure 4.1 shows the correlations of all 15 items with the two Varimax factors (See Appendix II for correlations). The items that correlated more than .40 with these factors were summed to make two new scales entitled Involvement Efficacy (IE) and Altruism (AL). The Involvement Efficacy scale contained eight items, the Altruism scale seven. Table 4.1 shows the items included in the Involvement Efficacy and Altruism scales. The order of the items in Table 4.1 is chosen to separate the independent dimensions of Involvement Efficacy and Altruism; it can be seen from the table that MSR and MCR are blends of involvement efficacy and altruism dimensions.

TABLE 4.1

Scale Items

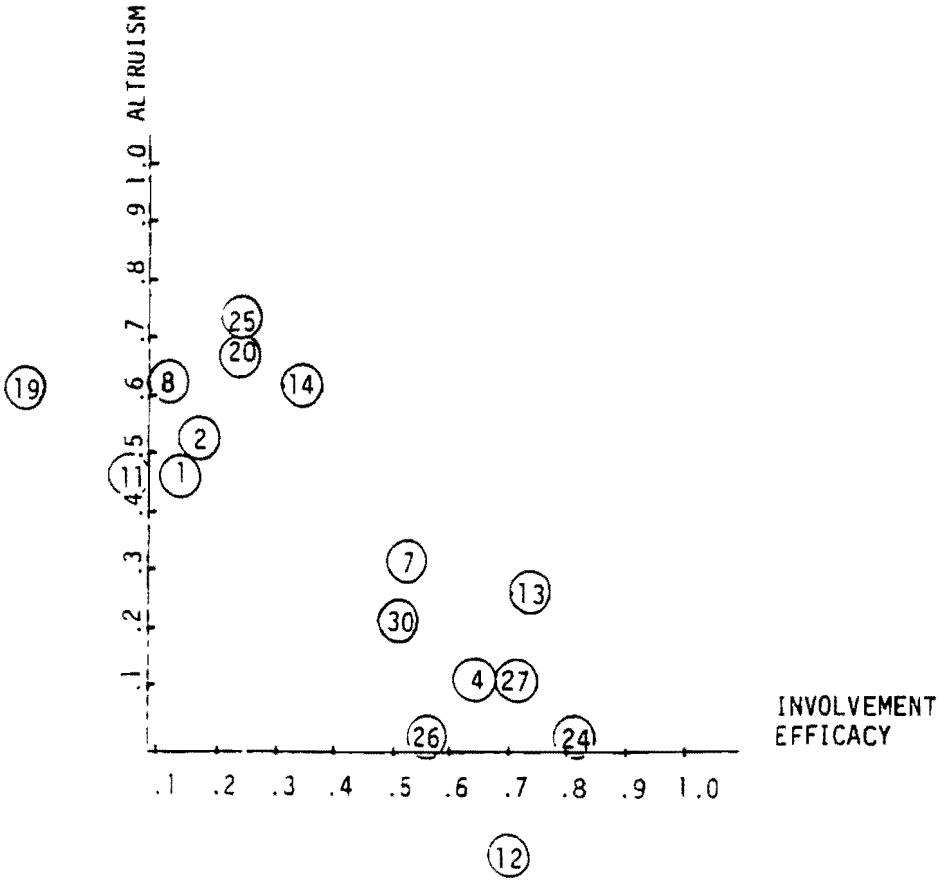
(ordered to emphasize independent dimensions Involvement Efficacy and Altruism)

Item	Scale					
	Social Responsibility	Modified Social Responsibility	Community Responsibility	Modified Community Responsibility	Involvement Efficacy	Altruism
4	X	X			X	
7		X	X	X	X	
12	X	X			X	
13	X	X		X	X	
24	X	X			X	
26			X	X	X	
27		X	X	X	X	
30			X	X	X	
1			X	X		X
2			X	X		X
8	X	X		X		X
14	X	X		X		X
19			X	X		X
20	X	X		X		X
25		X	X	X		X
11	X					

FIGURE 4.1

Correlations of Responsibility Items With

"Involvement Efficacy" and "Altruism" Factors



Using the Osseo sample, reliability and internal consistency were measured for the four new scales. The results are shown in Table 4.2.

TABLE 4.2

Internal Consistency and Test-Retest Reliability of the Modified Scales for the Osseo Sample

Scale	Cronbach alpha	Test-Retest
MSR	.70	.80
MCR	.72	.78
IE	.73	.74
AL	.71	.66

As a further check on the internal consistency of the new scales, the pretest scores for Armstrong and Cooper seniors were analyzed. Table 4.3 shows the results.

TABLE 4.3

Internal Consistency of the Modified Scales for Armstrong and Cooper Samples

	Cronbach alpha	
Scale	Armstrong	Cooper
MSR	.71	.66
MCR	.76	.73
IE	.72	.66
AL	.73	.70

Because the new scales had better internal consistency and equivalent test-retest reliability, the original CR scale was dropped from further analyses. The MSR scale was also deleted because of its item overlap with the MCR scale and because of its lower internal consistency. The Involvement Efficacy and Altruism scales were retained because they represented independent components in the MCR scale. The SR scale was retained because of its use in previously reported research. Thus, on the basis of the analyses of internal consistency and test-retest reliability of the several scales in the evaluation instrument, the change score data were subsequently investigated for five scales: Self-Esteem, Social Responsibility, Modified Community Responsibility, Involvement Efficacy, and Altruism.

The inter-scale correlations for Armstrong and Cooper samples are found in Tables 4.4 and 4.5

TABLE 4.4

Inter-Scale Correlations for the Armstrong Sample

Scale	SE	SR	MCR	IE	AL
SE					
SR	.0475				
MCR	.0743	.7760			
IE	.0590	.7575	.7221		
AL	.0588	.7013	.8820	.3736	

TABLE 4.5

Inter-Scale Correlations for the Cooper Sample

Scale	SE	SR	MCR	IE	AL
SE					
SR	-.0361				
MCR	.0635	.7137			
IE	.0162	.6982	.7475		
AL	.0738	.6433	.8900	.4252	

Group Differences in Background Characteristics

Socio-economic Status

Because specific income data for the subjects were not available, socio-economic status was represented by father's occupation, father's education and mother's education. Chi-square tests on father's occupation show no significant differences between participants and non-participants at either school. Chi-square tests on father's education and mother's education show both to be significantly different ($p < .01$) for participants and non-participants at Armstrong High School, but not at Cooper High School. (The tables and χ^2's on which these conclusions are based appear in Appendix III)

Ability

The Minnesota Scholastic Aptitude Test (MSAT) was used as an indicator of student scholastic ability. Table 4.6 shows the comparison of all Armstrong and Cooper students to 1971-1972 state-

wide norms.

TABLE 4.6

MSAT Quartile Scores

Quartile Rank	State norms	Armstrong	Cooper
Q1	22	26	21
Q2	30	34	28
Q3	40	44	39

Table 4.7 shows the difference in MSAT scores for participants and non-participants at Armstrong and Cooper.

TABLE 4.7

T-test Results on MSAT Scores

School	Group	N. of cases	Mean	Standard Deviation	Degrees of Freedom	t Value	1-tail Probability
Armstrong	Non-participants	106	35.89	12.7	269	-.78	.219
	Participants	165	37.10	12.4			
Cooper	Non-participants	171	30.48	11.4	350	-2.21	.014
	Participants	181	33.16	11.3			

An examination of table 4.6 shows that Armstrong students have higher MSAT scores than the state norms uniformly across the distri-

tion, and that Cooper students are nearly identical in MSAT scores to the state norms. Table 4.7 indicates that participants at Cooper have higher MSAT scores than non-participants ($p < .05$) while at Armstrong they do not.

Sex

Table 4.8 shows the sex ratios of participants and non-participants at the two high schools.

TABLE 4.8

Percent of Females in Student Population

School	Participants (%)	Non-participants (%)
Armstrong	60.0	44.3
Cooper	64.3	42.7

The sex ratios for participants and non-participants was statistically significant at both Armstrong ($\chi^2(1)=6.62$, $p < .01$) and Cooper ($\chi^2(1)=17.50$, $p. < .01$); more girls than boys chose to do volunteer community service. (See Appendix III for tables of these relationships)

CO-OP Participation

A major program existing concurrently with the community involvement program was the Cooperative Education Program (CO-OP), a joint effort between business and educat[illegible] to provide opportunities for high school students to learn occupational skills. Students in this program attended high school for half days and worked at their job

placements for the remainder of the day, receiving pay for their on-the-job training. Table 4.9 shows the percentage of CO-OP students at Cooper and Armstrong who were participants in the community involvement program.

TABLE 4.9

CO-OP Participants (%)

School	Percentage of All Participants	Percentage of All Non-participants
Armstrong	19.4	27.9
Cooper	18.1	32.8

At both schools a lower percentage of students enrolled in the CO-OP programs chose to do volunteer service in their communities than students who were not in the CO-OP programs, although the difference was statistically significant only at Cooper ($\chi^2(1)=10.44$, $p=.001$) and not at Armstrong ($\chi^2(1)=2.47$, $p=.12$). (See Appendix III for tables of these relationships)

Previous Volunteer Experience

Tables 4.10 and 4.11 show the amount of volunteer service given by students in the year preceding the community involvement program.

TABLE 4.10

Previous Volunteer Service of Armstrong Students

Previous Volunteer Service in Hours	Participants (n=180) (%)	Non-participants (n=122) (%)
0-10	62.8	86.1
11-25	12.8	6.5
26-52	13.9	4.9
53 +	10.5	2.5
	100%	100%

TABLE 4.11

Previous Volunteer Service of Cooper Students

Previous Volunteer Service in Hours	Participants (n=199) (%)	Non-participants (n=192) (%)
0-10	60.3	88.0
11-25	13.1	2.6
26-52	14.6	3.6
53 +	12.0	5.8
	100%	100%

Participants differed significantly from non-participants in the extent of their previous volunteer service, at both Armstrong ($\chi^2(3)=20.45$, $p=.0001$) and Cooper ($\chi^2(3)=41.00$, $p<.0001$), and the pattern was essentially the same for both schools.

In summary, the initial differences between participants and

non-participants at both Armstrong and Cooper High Schools on the characteristics of sex, CO-OP, and previous volunteer service were statistically significant. The most likely participant would generally have been female, would not have been in the CO-OP work program, and would have done previous volunteer service. The non-participant group was thus clearly a non-equivalent comparison group for the participants, and contrasts would have eventually to be adjusted for the differences.

Group Differences in Attitudes

Initial Attitudes

Tables 4.12 and 4.13 show the pretest means on the five scales for participants and non-participants at Armstrong and Cooper samples. (In the few cases when variances in participant and non-participant groups were significantly different, t-values and degrees of freedom were based on separate variance estimates rather than pooled variance estimates.)

TABLE 4.12

T-tests on Armstrong Pretest Means

Scale	Group	N	Possible Scale Range	Mean	Standard Deviation	Degrees of Freedom	t value	2-tail Probability
1. PreSE	non-participants	122	0-6	4.34	1.34	300	.42	.673
	participants	180		4.27	1.53			
2. PreSR	non-participants	121	8-32	24.73	3.35	222	-2.23	.03
	participants	180		25.54	2.74			
3. PreMCR	non-participants	118	12-48	36.00	4.60	221	-1.75	.08
	participants	174		36.90	3.85			
4. PreIE	non-participants	119	8-32	24.78	3.76	192	-3.02	.003
	participants	117		25.98	2.59			
5. PreAL	non-participants	120	7-28	21.05	3.08	295	.71	.478
	participants	177		21.28	2.66			

TABLE 4.13

T-tests on Cooper Pretest Means

Scale	Group	N	Possible Scale Range	Mean	Standard Deviation	Degrees of Freedom	t value	2-tail Probability
1. PreSE	non-participants	191	0-6	4.13	1.51	379	.88	.380
	participants	190		3.99	1.51			
2. PreSR	non-participants	190	8-32	24.22	2.64	383	-3.04	.003
	participants	195		25.07	2.81			
3. PreMCR	non-participants	186	12-48	35.31	3.64	369	-3.30	.001
	participants	185		36.62	4.02			
4. PreIE	non-participants	187	8-32	24.41	2.77	373	-4.84	.001
	participants	188		25.81	2.81			
5. PreAL	non-participants	190	7-28	20.59	2.66	381	-1.22	.223
	participants	193		20.92	2.59			

An examination of the pretest scores for the five scales shows some initial attitude differences between participants and non-participants at both schools. Armstrong participants have statistically higher initial scores than non-participants on the SR and IE scales, while Cooper participants have higher initial scores than non-participants on the MCR as well as on the SR and IE scales.

Change Scores

Unadjusted contrasts of the five involvement level groups were first analyzed by analysis of variance and then were analyzed through t-tests for the two groups defined as participants and non-participants.

Five-level contrasts. Tables 4.14 and 4.15 show the results of analysis of variance on the change scores for each of the five scales for the Armstrong and Cooper samples. Group means are given (Table 4.15) only for the single scale (Altruism) with a significant F.

The analyses of variance for the Armstrong sample showed no statistically significant differences on any of the change scores among the five involvement-level groups. The anlyses of the Cooper sample showed a statistically significant difference ($p=.03$) only on the change score for the Altruism scale. Because of the multiple tests run, even the single $p=.03$ cannot be taken very seriously.

TABLE 4.14

Analyses of Variance for Change Scores at Armstrong

CHANGE SCORE	SOURCE OF VARIANCE	df	SUM OF SQUARES	MEAN SQUARE	F RATIO	p.
1. SE	Between Groups	4	1.1052	.2763	.160	.958
	Within Groups	289	498.1771	1.7238		
	Total	293	499.2823			
2. SR	Between Groups	4	32.2156	8.0539	1.255	.288
	Within Groups	286	1836.0318	6.4197		
	Total	290	1868.2474			
3. MCR	Between Groups	4	17.4975	4.3744	.387	.818
	Within Groups	272	3074.0116	11.3015		
	Total	276	3091.5090			
4. IE	Between Groups	4	11.8927	2.9732	.311	.870
	Within Groups	278	2654.5243	9.5486		
	Total	282	2666.4170			
5. AL	Between Groups	4	11.0506	2.7626	.442	.778
	Within Groups	286	1787.9872	6.2517		
	Total	290	1799.0378			

Note- The means for each of the five groups on each of the five change scores appear in Appendix IV.

TABLE 4.15

Analysis of Variance for Change Scores at Cooper

CHANGE SCORE	SOURCE OF VARIANCE	df	SUM OF SQUARES	MEAN SQUARE	F RATIO	p.
1. SE	Between Groups	4	5.8785	1.4696	.939	.441
	Within Groups	365	571.2134	1.5650		
	Total	369	577.0919			
2. SR	Between Groups	4	35.0873	8.7718	1.436	.221
	Within Groups	373	2278.4814	6.18085		
	Total	377	2313.5688			
3. MCR	Between Groups	4	65.6307	16.4077	1.522	.195
	Within Groups	342	3686.7381	10.7799		
	Total	346	3752.3689			
4. IE	Between Groups	4	9.4115	2.3529	.303	.876
	Within Groups	358	2782.9687	7.7737		
	Total	362	2792.3802			
5. AL	Between Groups	4	62.8899	15.7225	2.702	.030
	Within Groups	362	2106.4889	5.8190		
	Total	366	2169.3787			

GROUP	N.	AL change MEAN	AL change STANDARD DEVIATION
1	92	.1413	2.62
2	88	-.0682	2.21
3	72	.5417	2.16
4	81	1.0123	2.59
5	33	.6970	2.43
TOTAL	366		

Note - The means for each of the four groups for SE, SR, MCR, and IE change scores appear in Appendix IV.

Two-level contrasts. Tables 4.16 and 4.17 show t-tests of the difference in change scores for participants and non-participants at Armstrong and Cooper.

The results of the t-tests run on the two groups from the Armstrong sample showed no statistically significant differences in any of the change scores from the five scales. However, the t-tests run on the Cooper sample showed statistically significant differences between the two groups on the change scores from the SR ($p=.013$), MCR ($p=.016$), and AL ($p=.002$) scales-- all to the advantage of the participants.

An additional perspective in ansering the question, "Do participants' attitudes change more than participants?" is provided by the magnitude of the differences. Tables 4.18 and 4.19 express the changes as z scores (that is, z change = $\frac{\text{posttest mean - pretest mean}}{\text{pretest standard deviation}}$ relative to the pre test distribution for each group). Tables 4.18 and 4.19 also show approximate group percentile differences, estimated from the area between the z scores on the normal distribution.

TABLE 4.16

Differences in Change Scores of Participants and Non-participants at Armstrong

Change Score	Group	N	Mean	Standard Deviation	Degrees of Freedom	t value	1-tail Probability
1. SE	non-participants	121	.0909	1.297	293	-.53	.299
	participants	174	.1724	1.310			
2. SR	non-participants	114	-.5088	2.529	289	-1.02	.155
	participants	177	-.1977	2.561			
3. MCR	non-participants	113	-.0885	3.385	275	- .99	.162
	participants	164	.3171	3.334			
4. IE	non-participants	114	-.1053	3.235	281	.38	.351
	participants	169	-.2485	2.990			
5. AL	non-participants	117	-.0769	2.553	289	-1.19	.115
	participants	174	.2816	2.453			

TABLE 4.17

Differences in Change Scores of Participants and Non-participants at Cooper

Change Score	Group	N	Mean	Standard Deviation	Degrees of Freedom	t value	1-tail Probability
1. SE	non-participants	184	.2826	1.244	368	- .89	.188
	participants	186	.3978	1.258			
2. SR	non-participants	186	-.4301	2.404	376	-2.25	.013
	participants	192	.1406	2.520			
3. MCR	non-participants	173	.1503	3.042	345	-2.17	.016
	participants	174	.9138	3.492			
4. IE	non-participants	181	-.1160	2.887	361	- .51	.305
	participants	182	.0330	2.669			
5. AL	non-participants	180	.0389	2.423	365	-2.97	.002
	participants	187	.7861	2.396			

TABLE 4.18

Differences in Percentile Rank for the Armstrong Sample

	Scale	Group	Change in Mean (In terms of pre-test z score)	Posttest Mean Percentile Rank (On pretest distribution)	Difference in Percentile Rank
1.	SE	non-participants	.067	.528	+1.6
		participants	.112	.544	
2.	SR	non-participants	-.151	.440	+3.2
		participants	-.072	.472	
3.	MCR	non-participants	-.019	.492	+4.0
		participants	.082	.532	
4.	IE	non-participants	-.028	.488	-2.8
		participants	-.0959	.460	
5.	AL	non-participants	-.0249	.493	+5.1
		participants	.1058	.544	

TABLE 4.19

Differences in Percentile Rank for the Cooper Sample

Scale	Group	Change in Mean (In terms of pre-test z score)	Posttest Mean Percentile Rank (On pretest distribution)	Difference in Percentile Rank
1. SE	non-participants	.187	.575	+2.3
	participants	.263	.602	
2. SR	non-participants	-.163	.436	+8.4*
	participants	.050	.520	
3. MCR	non-participants	.040	.516	+7.4*
	participants	.227	.590	
4. IE	non-participants	-.040	.484	+2.0
	participants	.010	.504	
5. AL	non-participants	.010	.504	+11.4**
	participants	.303	.618	

* $p < .05$ one-tailed
** $p < .001$ one-tailed

The increases in change scores of participants over non-participants is very slight for the Armstrong sample. The participants at Cooper do, however, show significant changes over non-participants on the SR, MCR, and AL scales.

Change Scores Adjusted for Background Differences

To answer the question, "Do participants change more than non-participants when adjustments are made for background characteristics?", partial correlations were computed between participation (dichotomized) and each of the five change scores, controlling for background variables. The background variables were:

1. Sex
2. Father's occupation
3. Father's education
4. Mother's education
5. MSAT raw score
6. High school rank (percentile)
7. Participation in Cooperative Education Programs (CO-OP)
8. Previous volunteer experience

Table 4.20 summarizes the results for the Armstrong and Cooper samples.

TABLE 4.20

Partial Correlations Between Change Scores and Participation, Controlling for Background Variables

	Armstrong				Cooper			
Change Score	Simple r	Partial r	F	p	Simple r	Partial r	F	p
1. SE	.04	.06	.89	.20	-.002	-.02	-.92	.38
2. SR	.10	.13	3.31	.035*	.09	.11	3.00	.043*
3. MCR	.08	.12	2.68	.05	.13	.16	5.90	.008**
4. IE	-.03	.003	.89	.49	.04	.07	1.18	.14
5. AL	.11	.15	3.89	.025*	.14	.15	5.34	.01*

*$p < .05$ one-tailed for partial r
**$p < .01$ one-tailed for partial r

After controlling for background variables, participants at both Armstrong and Cooper showed significantly greater change scores on the SR, MCR, and AL scales than did non-participants. (Previous t-test results did not show the program effects to be significant for Armstrong participants. By controlling for the background characteristics through the use of regression analysis, a more accurate assessment of program effects was possible.)

Predicting Change Among Participants

To answer the question, "Which independent variables predicted scale change scores for participants?", stepwise multiple regression analyses were run, adding time spent and type of agency to the background variables. The order of entry for these variables was as follows:

1. Sex
2. Father's occupation
3. Father's education
4. Mother's education
5. MSAT raw score
6. High school rank (Percentile)
7. Participation in cooperative education programs (CO-OP)
8. Previous volunteer experience (HRS 1)
9. Number of hours of participation (HRS 2)
10. Type of agency served

The results of the analyses showed that few variables helped predict change scores for any of the scales. For the Cooper sample none of the variables helped to predict the change scores on any of the five

scales. Table 4.21 shows that sex helped to predict Armstrong participant change scores for two of the five scales. The minus sign indicates that girls had slightly lower change scores. (Simple correlations between background variables and scale change scores appear in Appendix V)

TABLE 4.21

Significant Predictor Variables for Armstrong Participant Change Scores

Change Score	Variables included in significant regression	Simple p	Simple r	Percent of Variance Predictable (R^2) Significant Background Variables ($p < .05$)	Percent of Variance Predictable (R^2) All Background Variables
SE	None				
SR	None				
MCR	Sex	.02	-.207	4.3%	13.2%
IE	None				
AL	Sex	.05	-.175	3.1%	10.7%

Note - Addition of other variables beyond SEX improved the prediction, but not significantly (either singly or in sets) at the .05 level.

Because of the number of scales and variables in the stepwise regression analyses, the significance of multiple R's for Armstrong participants should be interpreted with caution. The best partial correlation, -.207, indicates only that sex differences account for less than 5% of the variance in the change of the MCR score. Even when all predictors are included, regardless of significance, little more than 10% of the variance is accounted for.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

Twenty five years ago Elbert W. Burr wrote, "The most adequate test of the individual's belief in democracy is found in the extent to which he participates effectively in the various phases of social living in his community. His understanding of the dynamic nature of democracy is best measured by his disposition to act in all social situations in ways that are consistent with the highest principles of democratic thought. The test of a democratic belief is democratic action. The acceptance of this principle makes it essential that the young people in our secondary schools have a wealth of opportunity to develop an interest in and some competency for that civic action which promotes the common welfare and which is designed to develop the best potentialities of each individual citizen. . . . It is little wonder that young people who have been treated as dependent and often "second-rate" citizens in the community throughout their entire school experience have not become dynamic citizens the very day they leave the secondary school to assume more adult roles in the community."[1]

More recently writers such as Coleman, Newman, and Conrad have echoed this charge. While many social studies educators have

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[1]Elbert W. Burr, "Experiences in Civic Action in the Secondary School," The Teaching of Contemporary Affairs, in Twenty First Yearbook of the National Council For The Social Studies (Washington D.C.: N.C.S.S., 1950), pp. 98-99.

advocated greater student involvement in their communities in order to bring about greater personal growth and more socially and politically efficacious behavior, little research has been conducted to test the claims for programs of community involvement. Thus, there is a clear need to evaluate the effectiveness of social studies programs that encourage students to become involved in the social service agencies within their communities. Specifically this study tested the assumptions that community involvement as a curriculum intervention strategy could affect the self-esteem and citizenship attitudes of social and community responsibility in adolescent students.

Summary

The research reported in this study evaluated a one-semester community involvement program. The study was conducted during the first semester of the 1971-1972 school year at Armstrong and Cooper senior high schools in the Robbinsdale school district, located in the northwestern suburbs of Minneapolis, Minnesota. The community involvement program encouraged students to give a minimum of 20 hours per semester to a community service agency. Students were engaged in face to face helping situations with the social agencies' clients rather than in clerical tasks for the agency. Students who did not participate in the community involvement program performed more traditional school assignments.

The study tested the assumptions that community involvement as a curriculum intervention strategy can improve adolescents':

(1) self-esteem

(2) sense of political efficacy

(3) sense of social responsibility

(4) sense of community responsibility

In addition, the study investigated whether attitudinal changes in scale scores of participants could be predicted from several student characteristics.

Seniors at both schools were given pre and post questionnaires from which several attitudinal scales were derived. Data on student background characteristics were also collected. Scale change scores were analyzed by analyses of variance, t-tests, and multiple regression. Because it was not possible to select the subjects for this study randomly, differences in background characteristics were adjusted through their prior entry in the multiple regression analysis.

Inadequacy of initially selected attitude scales required some scale modification and development. Results of the analysis on the Political Efficacy Scale for test-retest reliability and internal consistency indicated that the scale be dropped. The Social Responsibility Scale and the author's Community Responsibility Scale were both augmented by items from one another. Factor analysis of the items pool for these two scales suggested two new scales, IE and AL. Involvement Efficacy and Altruism represented the same item pool as the Social Responsibility and Community Responsibility scales, but provided virtually uncorrelated scores; thus they separated independent components of attitudes that are combined in Social Responsibility and Community Responsibility scales.

The scales finally used in the analysis of data were Rosenberg's Self Esteem Scale, Berkowitz and Lutterman's Social Responsibility Scale, a scale developed by the researcher to measure community responsibility, and the transformed scales Involvement Efficacy and Altruism. The Social Responsibility Scale measures students' attitudes towards helping others in society as a whole whereas the Community Responsibility Scale measures student attitudes towards helping their immediate neighbors. The Involvement Efficacy Scale measures the extent to which students feel that they can effect changes in the lives of others through their own efforts. The Altruism Scale measures the extent to which students feel that they should help others.

The analyses led to the following results:

1. No conclusion can be drawn as to the effects of the community involvement program on students' sense of political efficacy because of the unreliability of the Political Efficacy Scale.
2. Analyses of variance and t-test results, unadjusted for background characteristics of participants and non-participants, show that there were no significant differences between Cooper participants and non-participants on the Self Esteem and Involvement Efficacy Scales. Participants did show greater improvement on the Social Responsibility, Community Responsibility Scales, and Altruism Scales ($p < .05$). There were no significant differences between Armstrong participants and non-participants on any of the scales.

3. Chi-square analyses showed that the background of participants in the community involvement program differed initially from the background of non-participants. Participants were more likely to be girls, to be uninvolved in a Cooperative Educational Program, and to have given community volunteer service during the year previous to the study ($p < .05$).

Differences between participants and non-participants on socio-economic status and scholastic abilities showed a mixed picture at the two high schools. Armstrong participants' parents had significantly higher educational attainment than non-participants. There were no differences in educational attainment between participants' and non-participants' parents at Cooper High School. While Cooper participants had statistically higher MSAT scores than non-participants, there were no statistically significant differences on MSAT scores for Armstrong participants and non-participants.

Participants at both schools had significantly higher pre-scores than non-participants on the Social Responsibility, Community Responsibility and Involvement Scales ($p < .05$). However, it is impossible to determine whether the higher pre-scores of participants were the result of previous volunteer work or whether these attitudes existed prior to any volunteer work. It is possible that attitudes acquired from family or other sources led to the earlier volunteer work as well as to participation in the community involvement program.

4. When adjustments were made for the background characteristics of the participants and non-participants, the results show that the participants at both high schools improved their sense of social responsibility, community responsibility and altruism more than non-participants ($p < .05$). No changes were found between participants and non-participants on the Self Esteem or Involvement Efficacy Scales at either school.
5. Stepwise multiple regression analyses showed that almost none of the independent variables helped predict participant change scores consistently. Indeed, no independent variables helped predict participant change scores at Cooper High School. At Armstrong, the sex of participants was statistically significant for predicting the change scores on the Community Responsibility and Altruism scales. However, even for these scales only three to four percent of the total variance was explained by sex. Even when all predictors are included, regardless of significance, little more than 10% of the variance is accounted for. Thus, it would seem that the measured initial differences among participants had little to do with their attitude change. In brief, nothing seemed to make much difference.

Recommendations

Two kinds of recommendations are derived from the results of this study. The first concerns further research; the second set of recommendations contain specific suggestions for school practice.

Recommendations for Research

Three sets of research recommendations grow out of this study. The first concerns research which might grow out of hypotheses about why the study showed so little impact upon student attitudes. The second set grows out of the need to explore other possible effects of community involvement programs that were not investigated in this study. The third set of recommendations grow out of limitations of this study in terms of research design and measurement instruments.

Research related to study findings. Why were the results of this study of a particular community involvement program at variance with educators' assertions and the original assumptions of this study? A number of reasons or tentative hypotheses can be formulated for future testing.

1. A community involvement program may need to last much longer than four months if it is to result in much change in attitudes toward helping others and in improved self-esteem. (Feelings of self-esteem, in particular, develop over a long period of time.) To test such a hypothesis, additional research is needed to find out whether longer community involvement programs extending one year, two years, or even over a student's entire secondary school experience would affect attitudes more than did the four months allotted for this program.
2. The types of community involvement activities chosen by some participants in this study may not be as useful in affecting attitudes as some others might have been. Attitudes of students working for social change through social action groups may be

affected more than the attitudes of students working for social service agencies. Working with young people in educational or recreational agencies might be more satisfying and show more tangible results than working with the elderly. Students who work with the elderly may find it difficult to develop empathy with them.

Moreover, engaging in different activities within the same agency may have differing impact upon attitudes. No attempt was made in this study to contrast effects of different types of activities within agencies. Tutoring on a one-to-one basis might bring about greater attitudinal changes than teaching an entire class. Consequently, additional research is needed to find out if the different types of volunteer experiences have different effects on attitude outcomes.

3. This study explored the effects of a community involvement program immediately after the program ended. It is possible that the effects of this program on the participants may not have been apparent immediately. Longitudinal studies could ascertain the long-term effects of a program. Follow up studies after graduation could investigate the extent to which former community involvement participants are actively involved in their communities through their jobs or volunteer activities.

Research related to other possible effects. Because this study was limited to investigating the effects of a community involvement program on students' self-esteem and feelings of social and community

responsibility, several research questions remain to be studied.

1. There is a need to determine whether community involvement programs help students learn social studies concepts, skills, and generalizations better than do more conventional social studies programs. Community involvement programs assume that students learn more through active participation in the real world. This assumption needs to be tested.
2. The type of curriculum organizational structure might affect the cognitive and/or attitudinal outcomes. If the program were organized as a separate course or handled as independent study, the outcomes might be different than if the program were integrated into the existing curriculum as was the case in this study. A separate course in which more time was spent on interpersonal skills and discussion of individual experiences might bring about greater gains than were found in this study.
3. Another area for research is possible changes in perceptions of social agencies by the student participants. Participants' attitudes toward a social agency may be altered by experiences in working at that agency.
4. Community involvement program participants' attitude toward social agency clients may also change as a result of their experiences. Participants, working with the physically handicapped, may view these clients differently than they did prior to this experience.
5. Working for social service agencies or social action groups could serve as a means to explore future career possibilities

for program participants. Questions could be designed to find out if experiences in actual work situations change participants' career goals.

Research related to design and measurement instruments. Because this study and other studies of community involvement programs have not been able to select subjects randomly, more tightly controlled studies are needed.

1. One possibility would be to offer this program during two semesters and to assign students randomly, or if this is not possible, to let them choose the semester in which they participate. Thus, it would be possible to have both treatment and control groups for each semester.
2. This study is limited in that the program excluded from participation both low ability students and students with behavior problems. New studies could examine the effects of community involvement programs on a broader spectrum of students.

Evaluation of community involvement programs demands valid and reliable measurement instruments. While this study did improve an existing scale and created new scales, better measurement instruments are clearly needed.

1. The Political Efficacy Scale developed by Campbell et al. and used extensively over the last 20 years in political science studies does not appear to have the validity or reliability needed for accurate assessment of feelings of political efficacy. Modification of the existing scale should expand the number of items and greater care should be taken to reduce social desira-

bility response set.

2. Berkowitz and Lutterman's Social Responsibility Scale and the Community Responsibility Scale developed by this researcher both contained two attitudinal dimensions: involvement efficacy and altruism. The factor analysis performed in this study was able to separate these components into two new scales formed from the same item pool. By separating these components, a clearer picture of the community involvement program was possible. Even if only a single total score is used, the addition of three items and the deletion of one can increase its reliability (.70 to .80 for test-retest stability, .56 to .70 for internal consistency). Because social responsibility is a major objective of citizenship education, better measures of this attitude need to be developed. The Modified Community Responsibility scale could serve as a beginning in the development of such measures.

Recommendations for School Practice

Based on the change score data in this study, recommendations for school practice include the following:

1. Social studies educators should be cautious in expecting greater gains in self-esteem or citizenship attitudes through using community involvement as a curriculum intervention strategy. No statistically significant differences were found between participants and non-participants on the Self-Esteem or Involvement Efficacy Scales. While statistically significant differences were found in change score gains between participants and non-

participants on the Social Responsibility, Community Responsibility and Altruism Scales (after adjustments were made for differences in background differences), the practical differences were slight.

2. While the statistical results do not show the community involvement strategy to be convincingly superior to more conventional school practices, they also do not show that participants have poorer attitudes as a result of their participation. Thus, school personnel who wish to use a community involvement strategy may do so in the knowledge that these programs are no less effective in creating positive citizenship attitudes than more conventional curriculum strategies. However, one very important consideration for school personnel to consider prior to developing their own community involvement program is that of cost benefit. The community involvement program requires a considerable amount of staff time both in the planning and implementation of the program.

Conclusion

Although there have been many attempts to use community involvement programs to bring about cognitive and affective educational objectives, research on the effectiveness of such programs has been lacking. This thesis provides some insights as to the effects of one type of program. The research findings of this study do not offer strong support for the use of such involvement programs for bringing about greater positive shifts in citizenship attitudes. The attitude changes of program participants were slight and, although statistically significant on some scales, were so small that they were not likely

to be of practical significance.

The lack of association between student characteristics and amount of attitude change suggests that changes are highly idiosyncratic and thus unpredictable. In summary, the slight improvement in students' self-esteem and citzenship attitudes found from this study does not seem to suggest that the benefits warrant the costs.

This thesis should be viewed as a rather broad exploratory study that needs to be followed by studies of programs more tightly controlled on selection of participants, scope of experiences, and agencies served. It is possible that the design limitations and the breadth of program activities may have hidden possible attitude changes of particular types of students in specific agencies performing different kinds of duties. Only further research can answer that question.

BIBLIOGRAPHY

BIBLIOGRAPHY

Ahlgren, Andrew H. and Walberg, Herbert J.. "Generalized Regression Analysis", Introductory Multivariate Analysis, Daniel J. Amick and Herbert S. Walberg (eds.) Chicago: McCutchan Publishing, 1975, 8-52.

Anderson, Howard (ed.). Teaching Critical Thinking in the Social Studies. 13th Yearbook of the National Council for the Social Studies. Washington D.C.: N.C.S.S., 1942.

Barr, Robert D. Values and Youth. Washington D.C.: National Council for the Social Studies, 1971.

Berkowitz, Leonard and Lutterman, Kenneth G. "The Traditionally Socially Responsible Personality." Public Opinion Quarterly, 32 (1968), 169-185.

Blatchford, Joseph H. "Action Supports Student Volunteers." The Synergist (Spring, 1972), IFC, 43.

Bolzau, Emmal and Stevenson, Emily D. "Volunteer Student Social Service Project." Social Education (May 1949), 237-38.

Brookover, W. B., Erickson, E. L., and Joiner, L. M. Self Concept of Ability and School III: Relationship of Self Concept to Achievement in High School. U.S. Office of Education. Cooperative Research Project No. 2831. East Lansing: Michigan State University, 1967.

Burr, Elbert W. "Experiences in Civic Action in the Secondary Schools." The Teach of Contemporary Affairs, John C. Payne (ed.) 21st Yearbook of the National Council for the Social Studies. Washington D.C.: N.C.S.S., 1950.

Button, Christine B. "The Development of Experimental Curriculum to Effect the Political Socialization of Anglo, Black, and Mexican-American Adolescents." Ph.D. dissertation, University of Texas, 1972.

Campbell, Angus. The American Voter. New York: John Wiley and Sons, 1960.

_____ Gurin, Gerald and Miller, Warren E. The Voter Decides. Evanston, Illinois: Row Peterson and Company, 1954.

Campbell, Donald T. and Stanley, Julian C. Experimental and Quasi-Experimental Designs for Research, Chicago: Rand McNally Publishing Company, 1963.

Center for Youth Development and Research. Youth Encounters a Changing World, Minneapolis: University of Minnesota, 1972.

_____ Youth Encounters a World of Work, Minneapolis: University of Minnesota, 1973.

Cohen, Yehudi A. (ed.) Social Structure and Personality, New York: Holt, Rinehart, and Winston, Inc., 1961.

Coleman, James S. "The Children Have Outgrown the Schools" Psychology Today (February 1972), 12.

_____ "How the Youth Become Adults." Review of Educational Research. 42 (Fall 1972) 435-437.

Conrad, Dan. "Putting it Together: Learning and Developing Through Volunteer Service." Center Quarterly. 2, No. 1, 1973.

Dimond, Stanley E. Schools and the Development of Good Citizens. Detroit: Wayne University Press, 1953.

Easton, David and Dennis, Jack. "The Child's Acquisition of Regime Norms: Political Efficacy." American Political Science Review (March 1967), 25-38.

_____. "The Child's Image of Government." The Annals of the American Academy of Political and Social Science (September, 1965), 40-57.

_____ and Hess, Robert. "The Child's Political World." Midwest Journal of Political Science (August 1962), 229-246.

Eisner, Victor. "Alienation of Youth." Journal of School Health, 39 (February 1969), 81-90.

Erickson, V. Lois. Psychological Growth for Women: A High School Curriculumn Intervention, Minneapolis: Minneapolis Public Schools, 1974.

Everett, Samuel. Community School, New York: D. Appleton-Century Company Inc., 1938.

Fox, David J. The Research Process in Education. New York: Holt, Rinehart, and Winston, 1969.

Friendenberg, Edgar. The Vanishing ADolescent, Boston: Beacon Press, 1959.

Galliher, John. "Perceived Powerlessness in a Reformatory and a Hospital." Ph.D. dissertation, University of Indiana, 1967.

Goodman, Paul. Growing Up Absurd, New York: Random House, 1961.

Gough, H., McCloskey, H., and Meehl, P. "A Personality Scale for Social Responsibility." Journal of Abnormal and Social Psychology, 47 (1952), 73-80.

Greenstein, Fred I. Children and Politics, New Haven: Yale University Press, 1965.

Hanna, Paul R. Youth Serves the Community. New York: D. Appleton-Century Company Inc., 1937.

Harding, K. L. "A Comparitive Study of Caucasian Male High School Students Who Stay in School and Those Who Drop Out." Ph.D. dissertation, Michigan State University, 1966.

Harris, Dale B. "A Scale for Measuring Attitudes of Social Responsibility in Children." Journal of Abnormal and Social Psychology, 55 (1957), 322-326.

Hays, William L. Statistics for Psychologists, New York: Holt, Rinehart, and Winston, Inc., 1963.

Hess, Robert D. and Torney, Judith V. The Development of Political Attitudes in Children. Garden City: Doubleday and Company Inc., 1968.

_____ "Political Socialization in the Schools." Harvard Educational Review (Summer 1968), 528-536.

Jennings, M. Kent and Niemi, Richard G. "The Transmission of Political Values From Parent to Child." The American Political Science Review (March 1968), 1969-184.

Kaiser, Henry J. "The Application of Electronic Computers to Factor Analysis." Educational and Psychological Measurement (1968), 141-151.

Kelly, Hal James. "The Effect of the Helping Experience Upon the Self-Concept of the Helper." Ph.D. dissertation, University of Pittsburg, 1973.

Keniston, Kenneth. The Uncommitted: Alienated Youth in American Society, New York: Harcourt, Brace, and World Inc., 1960.

Langton, Kenneth P. and Jennings, M. Kent. "Political Socialization and the High School Civics Curriculum in the United States." The American Political Science Review (September 1968), 852-867.

Layton, Wilbur L. "Construction of a Short Form of the Ohio State University Psychological Examination." Unpublished article, University of Minnesota, 1954.

Leary, Timothy. Interpersonal Diagnosis of Personality, New York: Ronald Press, 1957.

Leonard, J. Paul and Eurich, Arvin C. An Evaluation of Modern Education. New York: D. Appleton-Century Company Inc., 1942.

Lynch, Michael A. "A Critical Analysis of the Survey Research Center's Political Efficacy Scale." Dissertation Abstracts. 35:1, p. 1183.

Mackey, James A. "The Dimensions of Adolescent Alienation." The High School Journal (November 1970), 84-95.

_____ "The Dimensions of Adolescent Alienation." Ph.D. dissertation, University of Indiana, 1974.

Marsh, David Dollison. "Education for Political Involvement: A Pilot Study of Twelth Graders." Ph.D. dissertation, University of Wisconsin, 1973.

Meier, Arnold, Cleary, Florence,Damon, and Davis, Alice M. A Curriculum for Citizenship. Detroit: Wayne University Press, 1952.

Minneapolis Community Health and Welfare Council. A Demographic Profile of Thirty Three Communities in Hennepin County. Minneapolis: M.C.H.W.C., 1972.

Moser, Ralph and Sprinthall, Norman. "Psychological Education: A New Form for Personal Growth and Human Development." People Watching. Vol. I, No. 1 (1971), 6-11.

National Commission on Resources For Youth. The Youth Tutoring Youth Model For In School Neighborhood Youth Corps: An Evaluation. New York: N.C.R.Y., 1972.

National Council for the Social Studies. Social Studies Curriculum Guidelines. Washington D.C.: N.C.S.S., 1971.

_____. Standards for Social Studies Teachers. Washington D.C.: N.C.S.S., 1971.

National Student Volunteer Program. High School Student Volunteers, Washington D.C.: Government Printing Office, 1971.

Newman, Fred M. "Political Socialization in the Schools." Harvard Educational Review (Summer 1968), 536-545.

_____ "Student Intentions in School Action Projects." Social Science Education Consortium Newsletter (February 1972), 1-4.

Nie, Norman H., Bent, Dale H., and Hull, C. Hadlai. Statistical Package for the Social Sciences. New York: McGraw-Hill, 1971.

_____ Jenkins, Jean G, and Steinbrenner, Karen. Statistical Packages for the Social Sciences. 2nd. ed. New York: McGraw-Hill, 1975.

Norem-Hebeisen, Ardyth A. "Differenciated Aspects of the Self-Esteeming Process Among Suburban Adolescents and Dysfunctional Youth." Ph.D. dissertation, University of Minnesota, 1974.

Outward Bound Inc. An Analysis of the Impact of Outward Bound on Twelve High Schools. Reston, Virginia: Outward Bound Inc., 1971.

Patrick, John J. The Impact of an Experimental Course, American Political Behavior, on the Knowledge, Skills, and Attitudes of Secondary School Students." Social Education (February 1972), 168-179.

_____. "Implications of Political Socialization Research for the Reform of Civic Education." Social Education (January 1969), 15-21.

_____. Political Socialization of American Youth. Research Bulletin No. 3, Washington D.C.: National Council for the Social Studies, 1967.

_____ and Glenn, Allen D. The Young Voter, Washington D.C.: National Council for the Social Studies, 1972.

Patterson, Franklin (ed.) Citizenship and a Free Society, 30th Yearbook of the National Council for the Social Studies, Washington D.C.: N.C.S.S., 1960.

Payne, John C. (ed.) The Teaching of Contemporary Affairs. 21st Yearbook of the National Council for the Social Studies, Washington D.C.: N.C.S.S., 1950.

Peterson, Virgil. "The Twain Converge." The Synergist (Fall 1971), 2-5.

Pflieger, Elmer F. and Weston, Grace L. Emotional Adjustment: A Key to Good Citizenship. Detroit: Wayne University Press, 1953.

Report on the Panel on Youth of the President's Science Advisory Committee. By James S. Coleman, Chairman. Washington D.C.: Government Printing Office, 1973.

Robinson, Donald W. Promising Practices in Civic Education, Washington D.C.: National Council for the Social Studies, 1967.

Robinson, John P. Rusk, Jerrold G. and Head, Kendra B. Measurement of Political Attitudes. Ann Arbor: Michigan Survey Research Center, 1968.

_____ and Shaver, Phillip R. Measures of Social Psychological Attitudes. Ann Arbor: Michigan Survey Research Center, 1969.

Rockler, Michael J. "The Effects of a Junior High Course in Political Behavior on Political Socialization." Ph.D. dissertation, University of Minnesota, 1969.

Rosenberg, Morris. Society and the Adolescent Self-Image. Princeton: Princeton University Press, 1965.

Sager, Wilfred Gus. "A Study of Changes in Attitudes, Values, and Self Concepts of Senior High Youth While Working as Full-Time Volunteers With Institutionally Mentally Retarded People." Ed.D. dissertation, University of South Dakota, 1973.

Schick, Marvin and Somit, Albert. "The Failure to Teach Political Activity." The American Behavioral Scientist (January 1963), 5-8.

Schufelt, Laura M. Developing Citizenship Through School Activities. Bulletin No. 22, Washington D.C.: National Council for the Social Studies, 1949.

Smith, M. Brewster. "Competence and Socialization." Socialization and Society, John A. Clausen (ed.), Boston: Little, Brown and Company (1968), 270-320.

Somit, Albert, Tanenhaus, Joseph, Wilke, Walter H., and Cooley, Rita W. "The Effect of the Introductory Political Science Course on Student Attitudes Toward Personal Political Participation." American Political Science Review (December 1968), 1129-32.

Sprinthall, Norman A. Learning Psychology by Doing Psychology: A High School Curriculum in the Psychology of Counseling. Minneapolis: Minneapolis Public Schools, 1973.

Swanson, Edward O. "New Forms of the M.S.A.T. Being Developed." Student Counseling Newsletter, Vol. 18, No. 1 (November 1965), 3-6.

Taba, Hilda. Social Sensitivity. Bulletin No. 6, Washington D.C.: Progressive Educational Association, 1936.

U.S. Bureau of the Census, Census of Population and Housing: 1970 Census Tracts Final Report PHC(1)-132 Minneapolis-St. Paul, Minnesota, S.M.S.A., Washington D.C.: Government Printing Office, 1972.

_____. Census of Population: 1970 General Social and Economic Characteristics Final Report PC(1)-C1 United States Summary, Washington D.C.: Government Printing Office, 1972.

Vincent, William S. Building Better Programs in Citizenship: A Guide for Teachers, Administrators, and College Instructors. New York: Columbia University Press, 1958.

West, Ruth (ed.) Utilization of Community Resources in the Social Studies. 9th Yearbook of the National Council for the Social Studies, Washington D.C.: N.C.S.S., 1938.

Williams, R. L. and Cole, S. "Self Concept and School Adjustment." Personnel and Guidance Journal. 46 (1968), 478-81.

Wolk, Donald J. Drugs and Youth, Washington D.C.: National Council for the Social Studies, 1971.

Wylie, Ruth C. The Self Concept, Lincoln: University of Nebraska Press, 1961.

_____. The Self Concept. 2nd ed. Lincoln: University of Nebraska Press, 1974.

APPENDIX I

SCALES

SOCIAL STUDIES CITIZENSHIP SURVEY

SELF-ESTEEM SCALE

POLITICAL EFFICACY SCALE

SOCIAL RESPONSIBILITY SCALE

COMMUNITY RESPONSIBILITY SCALE

INVOLVEMENT EFFICACY SCALE

ALTRUISM SCALE

SOCIAL STUDIES CITIZENSHIP SURVEY

The questions of this survey attempt to measure your attitudes towards many aspects of citizenship. There are no correct responses. Please darken in the circle which best represents your attitude toward the question being asked.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. When I help other students who are having trouble in school, I feel better about myself.				
2. I can help adults because we care about the same things.				
3. On the whole, I am satisfied with myself.				
4. People would be a lot better off if they would live far away from other people and never have to do anything for them.				
5. I am able to do things as well as most other people.				
6. Voting is the only way that people like me have any say about how the government runs things.				
7. I really can't help improve my community because I don't have enough skill or experience.				
8. Every person should give some of his time for the good of his town or country.				

	Strongly Agree	Agree	Disagree	Strongly Disagree
9. I don't think public officials care much about what people like me think.				
10. I feel that I'm a person of worth, at least on an equal plane with others.				
11. At school I usually volunteer for special projects.				
12. Letting your friends down is not so bad because you can't do good all the time for everybody.				
13. It is no use worrying about current events or public affairs; I can't do anything about them anyway.				
14. I feel very bad when I have failed to finish a job I promised I would do.				
15. I take a positive attitude toward myself.				
16. I wish I could have more respect for myself.				
17. Sometimes politics and government seem so complicated that a person like me can't really understand what's going on.				
18. I feel that I have a number of good qualities.				
19. I can improve my community because of my enthusiasm and willingness to work.				

	Strongly Agree	Agree	Disagree	Strongly Disagree
20. It is the duty of each person to do his job the very best he can.				
21. I feel I do not have much to be proud of.				
22. All in all, I am inclined to feel that I am a failure.				
23. People like me don't have any say about what the government does.				
24. Our country would be a lot better off if we didn't have so many elections and people didn't have to vote so often.				
25. It's nice to live in a neighborhood where people help one another because I get a good feeling when I help others.				
26. I really can't help people older than myself because there's such a generation gap.				
27. Giving help to other students in school just takes time away from my own school work.				
28. At times I think I am no good at all.				
29. I certainly feel useless at times.				

	Strongly Agree	Agree	Disagree	Strongly Disagree
30. I don't believe in going out of my way to help my neighbors because I've got enough concerns of my own.				

SELF-ESTEEM SCALE

Scale Stem I was contrived from the combined responses to the three questions listed below. If a respondent answered 2 out of 3 or 3 out of 3 positively he received a positive score for Scale Stem I. If he answered 1 out of 3 or 0 out of 3 positively, he received a negative score for Scale Stem I.

I feel that I'm a person of worth, at least on an equal plane with others.

1 _____ Strongly agree
2 _____ Agree
*3 _____ Disagree
*4 _____ Strongly disagree

I feel that I have a number of good qualities.

1 _____ Strongly agree
2 _____ Agree
*3 _____ Disagree
*4 _____ Strongly disagree

All in all, I am inclined to feel that I am a failure.

*1 _____ Strongly agree
*2 _____ Agree
3 _____ Disagree
4 _____ Strongly disagree

Scale Stem II was contrived from the combined responses to two self-esteem questions. 1 out of 2 or 2 out of 2 positive responses were considered positive for Scale Stem II.

I am able to do things as well as most other people.

1 _____ Strongly agree
2 _____ Agree
*3 _____ Disagree
*4 _____ Strongly disagree

I feel I do not have much to be proud of.

*1 _____ Strongly agree
*2 _____ Agree
3 _____ Disagree
4 _____ Strongly disagree

Scale Stem III

I take a positive attitude toward myself.

1 _____ Strongly agree
2 _____ Agree
*3 _____ Disagree
*4 _____ Strongly disagree

Scale Stem IV

On the whole, I am satisfied with myself.

1 _____ Strongly agree
2 _____ Agree
*3 _____ Disagree
*4 _____ Strongly disagree

Scale Stem V

I wish I could have more respect for myself.

*1 _____ Strongly agree
*2 _____ Agree
3 _____ Disagree
4 _____ Strongly disagree

Scale Stem VI was contrived from the combined responses to two self-esteem questions. 1 out of 2 or 2 out of 2 positive responses were considered positive,

I certainly feel useless at times.

*1 _____ Strongly agree
*2 _____ Agree
3 _____ Disagree
4 _____ Strongly disagree

At times I think I am no good at all.

*1 _____ Strongly agree
*2 _____ Agree
3 _____ Disagree
4 _____ Strongly disagree

* Positive responses indicate low self-esteem.

POLITICAL EFFICACY SCALE

1. I don't think public officials care much about what people like me think.

Strongly agree	Agree	Disagree	Strongly disagree

2. Voting is the only way that people like me can have any say about how the government runs things.

Strongly agree	Agree	Disagree	Strongly disagree

3. People like me don't have any say about what the government does.

Strongly agree	Agree	Disagree	Strongly disagree

4. Sometimes politics and government seems so complicated that a person like me can't really understand what's going on.

Strongly agree	Agree	Disagree	Strongly disagree

"Strongly Disagree" and "Disagree" responses to the test items are coded as "efficacious".

SOCIAL RESPONSIBILITY SCALE
(* responsible reply)

1. It is no use worrying about current events or public affairs; I can't do anything about them anyway.

   Strongly agree Agree *Disagree *Strongly disagree

2. Every person should give some of his time for the good of his town or country.

   *Strongly agree *Agree Disagree Strongly disagree

3. Our country would be a lot better off if we didn't have so many elections and people didn't have to vote so often.

   Strongly agree Agree *Disagree *Strongly disagree

4. Letting your friends down is not so bad because you can't do good all the time for everybody.

   Strongly agree Agree *Disagree *Strongly disagree

5. It is the duty of each person to do his job the very best he can.

   *Strongly agree *Agree Disagree Strongly disagree

6. People would be a lot better off if they could live far away from other people and never have to do anything for them.

   Strongly agree Agree *Disagree *Strongly disagree

7. At school I usually volunteered for special projects.

   *Strongly agree *Agree Disagree Strongly disagree

8. I feel very bad when I have failed to finish a job I promised I would do.

   *Strongly agree *Agree Disagree Strongly disagree

COMMUNITY RESPONSIBILITY SCALE
(*responsible reply)

1. When I help other students who are having trouble in school, I feel better about myself.

   *Strongly agree *Agree Disagree Strongly disagree

2. I can help adults because we care about the same things.

   *Strongly agree *Agree Disagree Strongly disagree

3. I really can't help improve my community because I don't have enough skill or experience.

   Strongly agree Agree *Disagree *Strongly disagree

4. I can improve my community because of my enthusiasm and willingness to work.

   *Strongly agree *Agree Disagree Strongly disagree

5. It's nice to live in a neighborhood where people help one another because I get a good feeling when I help others.

   *Strongly agree *Agree Disagree Strongly disagree

6. I really can't help people older than myself because there's such a generation gap.

   Strongly agree Agree *Disagree *Strongly disagree

7. Giving help to other students in school just takes time away from my own school work.

   Strongly agree Agree *Disagree *Strongly disagree

8. I don't believe in going out of my way to help my neighbors because I've got enough concerns of my own.

   Strongly agree Agree *Disagree *Strongly disagree

9. Every person should give some of his time for the good of his town or country.

   *Strongly agree *Agree Disagree Strongly disagree

10. It is no use worrying about current events or public affairs; I can't do anything about them anyway.

   Strongly agree Agree *Disagree *Strongly disagree

11. I feel very bad when I have failed to finish a job I promised I would do.

   *Strongly agree *Agree Disagree Strongly disagree

12. It is the duty of each person to do his job the very best he can.

   *Strongly agree *Agree Disagree Strongly disagree

Items 9-12 were added to the original CR Scale from the SR Scale to create the 12-item Community Responsibility Scale which subsequently was used in the analysis of program effects.

INVOLVEMENT EFFICACY SCALE
(*involvement-efficacious reply)

1. People would be a lot better off if they would live far away from other people and never have to do anything for them.

   Strongly agree Agree *Disagree *Strongly disagree

2. I really can't help improve my community because I don't have enough skill or experience.

   Strongly agree Agree *Disagree *Strongly disagree

3. Letting your friends down is not so bad because you can't do good all the time for everybody.

   Strongly agree Agree *Disagree *Strongly disagree

4. It is no use worrying about current events or public affairs; I can't do anything about them anyway.

   Strongly agree Agree *Disagree *Strongly disagree

5. Our country would be a lot better off if we didn't have so many elections and people didn't have to vote so often.

   Strongly agree Agree *Disagree *Strongly disagree

6. I really can't help people older than myself because there's such a generation gap.

   Strongly agree Agree *Disagree *Strongly disagree

7. Giving help to other students in school just takes time away from my own school work.

   Strongly agree Agree *Disagree *Strongly disagree

8. I don't believe in going out of my way to help my neighbors because I've got enough concerns of my own.

   Strongly agree Agree *Disagree *Strongly disagree

ALTRUISM SCALE
(*altruistic reply)

1. When I help other students who are having trouble in school, I feel better about myself.

   *Strongly agree *Agree Disagree Strongly disagree

2. I can help adults because we care about the same things.

   *Strongly agree *Agree Disagree Strongly disagree

3. Every person should give some of his time for the good of his town or country.

   *Strongly agree *Agree Disagree Strongly disagree

4. I feel very bad when I have failed to finish a job I promised I would do.

   *Strongly agree *Agree Disagree Strongly disagree

5. I can improve my community because of my enthusiasm and willingness to work.

   *Strongly agree *Agree Disagree Strongly disagree

6. It is the duty of each person to do his job the very best he can.

   *Strongly agree *Agree Disagree Strongly disagree

7. It's nice to live in a neighborhood where people help one another because I get a good feeling when I help others.

   *Strongly agree *Agree Disagree Strongly disagree

APPENDIX II

VARIMAX-ROTATED FACTOR MATRIX

VARIMAX ROTATED FACTOR MATRIX
AFTER ROTATION WITH KAISER NORMALIZATION

	Factor 1 "Involvement Efficacy"	Factor 2 "Altruism"
Var 101	.07882	.40806
Var 102	.13458	.48839
Var 104	.58737	.07500
Var 107	.47903	.26241
Var 108	.00548	.62676
Var 111	-.00965	.41087
Var 112	.66475	-.24870
Var 113	.61534	.24766
Var 114	.21283	.55046
Var 119	-.17555	.59440
Var 120	.18171	.69408
Var 124	.75356	.00013
Var 125	.16701	.73023
Var 126	.53895	.03763
Var 127	.63351	.05620
Var 130	.45366	.17111

APPENDIX III

DATA ON DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT THE BEGINNING OF THE STUDY

CHI-SQUARE TABLE OF SEX DIFFERENCES
BETWEEN PARTICIPANTS AND NON-PARTICIPANTS
AT ARMSTRONG HIGH SCHOOL

SEX	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participant	Row Total
Male		68	72	140
		48.6	51.4	46.4
		55.7	40.0	
		22.5	23.8	
Female		54	108	162
		33.3	66.7	53.6
		44.3	60.0	
		17.9	35.8	
Column Total		122	180	302
		40.4	59.6	100.0

Corrected Chi Square = 6.62330 With 1 Degree of Freedom.
Significance = .0101

CHI-SQUARE TABLE OF SEX DIFFERENCES
BETWEEN PARTICIPANTS AND NON-PARTICIPANTS
AT COOPER HIGH SCHOOL

SEX	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participant	Row Total
Male		110	71	181
		60.8	39.2	46.3
		57.3	35.7	
		28.1	18.2	
Female		82	128	210
		39.0	61.0	53.7
		42.7	64.3	
		21.0	32.7	
Column Total		192	199	391
		49.1	50.9	100.0

Corrected Chi Square = 17.50105 With 1 Degree of Freedom.
Significance = .0000

CHI-SQUARE TABLE OF FATHERS' OCCUPATIONAL
DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS
AT ARMSTRONG HIGH SCHOOL

FATH OCC	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Professional		16 37.2 15.7 6.0	27 62.8 16.5 10.2	43 16.2
Owns or manages business		9 26.5 8.8 3.4	25 73.5 15.2 9.4	34 12.8
Office work		9 45.0 8.8 3.4	11 55.0 6.7 4.1	20 7.5
Sales		14 36.8 13.7 5.3	24 63.2 14.6 9.0	38 14.3
Owns or manages farm		0 0 0 0	1 100.0 .6 .4	1 .4
Skilled tradesman		22 33.3 21.6 8.3	44 66.7 26.8 16.5	66 24.8
Factory worker		4 66.7 3.9 1.5	2 33.3 1.2 .8	6 2.3
Other occupations		28 48.3 27.5 10.5	30 51.7 18.3 11.3	58 21.8
Column Total		102 38.3	164 61.7	266 100.0

Raw Chi Square = 8.24047 With 7 Degrees of Freedom.
Significance = .3119

CHI-SQUARE TABLE OF FATHERS' OCCUPATIONAL
DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS
AT COOPER HIGH SCHOOL

FATH OCC	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Professional		14 46.7 8.3 4.0	16 53.3 8.9 4.6	30 8.6
Owns or manages business		12 42.9 7.1 3.5	16 57.1 8.9 4.6	28 8.1
Office work		20 62.5 11.9 5.8	12 37.5 6.7 3.5	32 9.2
Sales		8 28.6 4.8 2.3	20 71.4 11.2 5.8	28 8.1
Skilled tradesman		68 56.7 40.5 19.6	52 43.3 29.1 15.0	120 34.6
Factory worker		11 39.3 6.5 3.2	17 60.7 9.5 4.9	28 8.1
Other occupations		35 43.2 20.8 10.1	46 56.8 25.7 13.3	81 23.3
Column Total		168 48.4	179 51.6	347 100.0

Raw Chi Square = 12.42428 With 6 Degrees of Freedom.
Significance = .0531

CHI-SQUARE TABLE OF FATHERS' EDUCATIONAL LEVEL DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT ARMSTRONG HIGH SCHOOL

FATH ED	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Some grade school		2 100.0 2.0 .8	0 0 0 0	2 .8
Completed eighth grade		9 69.2 8.8 3.4	4 30.8 2.5 1.5	13 4.9
Some high school		13 54.2 12.7 4.9	11 45.8 6.7 4.2	24 9.1
Graduated from high school		23 35.4 22.5 8.7	42 64.6 25.8 15.8	65 24.5
Business or trade school		11 26.8 10.8 4.2	30 73.2 18.4 11.3	41 15.5
Some college work		8 21.1 7.8 3.0	30 78.9 18.4 11.3	38 14.3
Graduated from college		30 47.6 29.4 11.3	33 52.4 20.2 12.5	63 23.8
Holds more than one college degree		6 31.6 5.9 2.3	13 68.4 8.0 4.9	19 7.2
Column Total		102 38.5	163 61.5	265 100.0

Raw Chi Square = 20.97712 With 7 Degrees of Freedom.
Significance = .0038

CHI-SQUARE TABLE OF FATHERS EDUCATIONAL LEVEL DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT COOPER HIGH SCHOOL

FATH ED	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Did not attend school		0 0 0 0	1 100.0 .6 .3	1 .3
Some grade school		2 66.7 1.2 .6	1 33.3 .6 .3	3 .9
Completed eighth grade		24 57.1 14.3 6.9	18 42.9 10.1 5.2	42 12.1
Some high school		17 58.6 10.1 4.9	12 41.4 6.7 3.5	29 8.4
Graduated from high school		56 46.7 33.3 16.2	64 53.3 36.0 18.5	120 34.7
Business or trade school		17 38.6 10.1 4.9	27 61.4 15.2 7.8	44 12.7
Some college work		23 51.1 13.7 6.6	22 48.9 12.4 6.4	45 13.0
Graduated from college		25 51.0 14.9 7.2	24 49.0 13.5 6.9	49 14.2
Holds more than one college degree		4 30.8 2.4 1.2	9 69.2 5.1 2.6	13 3.8
Column Total		168 48.6	178 51.4	346 100.0

Raw Chi Square = 7.54160 With 8 Degrees of Freedom.
Significance = .4795

CHI-SQUARE TABLE OF MOTHERS'EDUCATIONAL LEVEL DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT ARMSTRONG HIGH SCHOOL

MOTH ED	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Did not attend school		2 100.0 2.0 .8	0 0 0 0	2 .8
Some grade school		0 0 0 0	1 100.0 .6 .4	1 .4
Completed eighth grade		4 80.0 3.9 1.5	1 20.0 .6 .4	5 1.9
Some high school		14 70.0 13.7 5.3	6 30.0 3.7 2.3	20 7.5
Graduated from high school		49 38.0 48.0 18.5	80 62.0 49.1 30.2	129 48.7
Business or trade school		4 14.3 3.9 1.5	24 85.7 14.7 9.1	28 10.6
Some college work		20 40.8 19.6 7.5	29 59.2 17.8 10.9	49 18.5
Graduated from college		8 28.6 7.8 3.0	20 71.4 12.3 7.5	28 10.6
Holds more than one college degree		1 33.3 1.0 .4	2 66.7 1.2 .8	3 1.1
Column Total		102 38.5	163 61.5	265 100.0

Raw Chi Square = 24.10005 With 8 Degrees of Freedom.
Significance = .0022

CHI-SQUARE TABLE OR MOTHERS' EDUCATIONAL LEVEL DIFFERENCES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT COOPER HIGH SCHOOL

MOTH ED	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Some grade school		3 100.0 1.8 .9	0 0 0 0	3 .9
Completed eighth grade		8 50.0 4.7 2.3	8 50.0 4.5 2.3	16 4.6
Some high school		11 39.3 6.5 3.2	17 60.7 9.6 4.9	28 8.1
Graduated from high school		103 52.8 60.9 29.7	92 47.2 51.7 26.5	195 56.2
Business or trade school		19 46.3 11.2 5.5	22 53.7 12.4 6.3	41 11.8
Some college work		14 38.9 8.3 4.0	22 61.1 12.4 6.3	36 10.4
Graduated from college		10 40.0 5.9 2.9	15 60.0 8.4 4.3	25 7.2
Holds more than one college degree		1 33.3 .6 .3	2 66.7 1.1 .6	3 .9
Column Total		169 48.7	178 51.3	347 100.0

Raw Chi Square = 8.00881 With 7 Degrees of Freedom.
Significance = .3318

CHI-SQUARE TABLE OF DIFFERENCES IN COOPERATIVE EDUCATION INVOLVEMENT BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT ARMSTRONG HIGH SCHOOL

COOP	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Involved		34	35	69
		49.3	50.7	22.8
		27.9	19.4	
		11.3	11.6	
Non-Involved		88	145	233
		37.8	62.2	77.2
		72.1	80.6	
		29.1	48.0	
Column Total		122	180	302
		40.4	59.6	100.0

Corrected Chi Square = 2.46920 With 1 Degree of Freedom.
Significance = .1161

CHI-SQUARE TABLE OF DIFFERENCES IN COOPERATIVE EDUCATION INVOLVEMENT BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT COOPER HIGH SCHOOL

COOP	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
Involved		63	36	99
		63.6	36.4	25.3
		32.8	18.1	
		16.1	9.2	
Non-Involved		129	163	292
		44.2	55.8	74.7
		67.2	81.9	
		33.0	41.7	
Column Total		192	199	391
		49.1	50.9	100.0

Corrected Chi Square = 10.43576 With 1 Degree of Freedom.
Significance = .0012

CHI-SQUARE TABLE OF DIFFERENCES IN PREVIOUS VOLUNTEER SERVICE BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT ARMSTRONG HIGH SCHOOL

PREVIOUS VOLUNTEER EXPERIENCE	Count / Row Pct / Col Pct / Tot Pct	Participation: Non-Participant	Participation: Participant	Row Total
0-11 hrs		105 48.2 86.1 34.8	113 51.8 62.8 37.4	218 72.2
12-25 hrs		8 25.8 6.6 2.6	23 74.2 12.8 7.6	31 10.3
26-52 hrs		6 19.4 4.9 2.0	25 80.6 13.9 8.3	31 10.3
53 hrs +		3 13.6 2.5 1.0	19 86.4 10.6 6.3	22 7.3
Column Total		122 40.4	180 59.6	302 100.0

Raw Chi Square = 20.44832 With 3 Degrees of Freedom.
Significance = .0001

CHI-SQUARE TABLE OF DIFFERENCES IN PREVIOUS VOLUNTEER SERVICE BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT COOPER HIGH SCHOOL

PREVIOUS VOLUNTEER EXPERIENCE	Count / Row Pct / Col Pct / Tot Pct	Participation		Row Total
		Non-Participant	Participant	
0-11 hrs		169 58.5 88.0 43.2	120 41.5 60.3 30.7	289 73.9
12-25 hrs		5 16.1 2.6 1.3	26 83.9 13.1 6.6	31 7.9
26-52 hrs		7 19.4 3.6 1.8	29 80.6 14.6 7.4	36 9.2
52 hrs +		11 32.4 5.7 2.8	24 67.6 11.6 5.9	35 9.0
Column Total		192 49.1	199 50.9	391 100.0

Raw Chi Square = 41.10136 With 4 Degrees of Freedom.
Significance = .0000

DIFFERENCES IN MSAT SCORES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT ARMSTRONG HIGH SCHOOL

Variable	Number of Cases	Mean	Standard Deviation	t value	Degrees of Freedom	2-Tail Prob.
MSAT						
Non-Participants	106	35.8868	12.722	-.78	269	.437
Participants	165	37.1030	12.447			

DIFFERENCES IN MSAT SCORES BETWEEN PARTICIPANTS AND NON-PARTICIPANTS AT COOPER HIGH SCHOOL

Variable	Number of Cases	Mean	Standard Deviation	t value	Degrees of Freedom	2-Tail Prob.
MSAT						
Non-Participants	171	30.4795	11.397	-2.21	350	.028
Participants	181	33.1602	11.345			

APPENDIX IV

PROGRAM EFFECTS

ANALYSIS OF VARIANCE TABLES OF SCALE CHANGE SCORE MEANS

ANALYSIS OF VARIANCE OF SCALE
CHANGE SCORE MEANS FOR ARMSTRONG

Scale	Group	N	Change Mean	Change Mean Standard Deviation
SE	Grp 1	51	.098	1.432
	Grp 2	69	.087	1.210
	Grp 3	91	.154	1.406
	Grp 4	70	.229	1.206
	Grp 5	13	.000	1.225
	Total	294	.140	1.305
SR	Grp 1	48	-.460	2.543
	Grp 2	66	-.682	2.476
	Grp 3	94	-.319	2.752
	Grp 4	70	-.257	2.276
	Grp 5	13	1.000	2.450
	Total	291	-.350	2.538
MCR	Grp 1	49	-.1224	3.980
	Grp 2	64	-.1094	2.840
	Grp 3	88	.1818	3.446
	Grp 4	65	.4154	3.201
	Grp 5	11	.8182	3.430
	Total	277	.1408	3.347
IE	Grp 1	48	-.229	3.502
	Grp 2	66	-.136	3.007
	Grp 3	89	-.337	3.254
	Grp 4	69	-.290	2.53
	Grp 5	11	.727	3.496
	Total	283	-.219	3.075
AL	Grp 1	50	-.020	3.153
	Grp 2	67	-.149	1.987
	Grp 3	94	.234	2.575
	Grp 4	67	.313	2.356
	Grp 5	13	.462	2.184
	Total	291	.131	2.490

ANALYSIS OF VARIANCE OF SCALE
CHANGE SCORE MEANS FOR COOPER

Scale	Group	N	Change Mean	Change Mean Standard Deviation
SE	Grp 1	98	.225	1.256
	Grp 2	86	.349	1.235
	Grp 3	69	.217	1.069
	Grp 4	86	.488	1.317
	Grp 5	30	.600	1.453
	Total	369	.344	1.250
SR	Grp 1	98	-.337	2.328
	Grp 2	88	-.534	2.496
	Grp 3	74	.041	2.485
	Grp 4	85	.282	2.390
	Grp 5	32	.031	3.000
	Total	377	-.138	2.248
MCR	Grp 1	88	.341	3.173
	Grp 2	85	-.047	2.907
	Grp 3	69	.652	3.360
	Grp 4	78	1.013	3.473
	Grp 5	26	1.231	4.003
	Total	346	.526	3.295
IE	Grp 1	94	-.128	3.220
	Grp 2	87	-.103	2.497
	Grp 3	72	.139	2.596
	Grp 4	83	-.157	2.787
	Grp 5	26	.385	2.578
	Total	362	-.038	2.781
AL	Grp 1	92	.141	2.621
	Grp 2	88	-.068	2.207
	Grp 3	72	.542	2.156
	Grp 4	81	1.012	2.522
	Grp 5	33	.697	2.592
	Total	366	.413	2.434

APPENDIX V

PREDICTING CHANGE AMONG PARTICIPANTS

SIMPLE CORRELATIONS BETWEEN BACKGROUND VARIABLES AND SCALE CHANGE SCORES

SIMPLE CORRELATIONS BETWEEN
BACKGROUND VARIABLES AND SCALE
CHANGE SCORES FOR ARMSTRONG PARTICIPANTS

Background Variables	Scale Change Scores				
	SE	SR	MCR	IE	AL
Sex	-.103	-.166	-.207	-.126	-.175
Father's Occupation	.051	.014	.145	.076	.134
Father's Education	-.076	.007	.052	.114	.021
Mother's Education	-.089	-.090	-.097	.011	-.100
Minn. Scholastic Apt. Test	.066	.021	-.007	.159	-.076
High School Rank (Percentile)	.048	-.067	-.046	.019	-.099
Previous Volunteer Exper.	.038	-.033	-.174	-.064	-.137
COOP Program Invol.	.038	-.102	.025	.069	-.062
Hours of Program Service	-.025	.093	.084	.026	.068
Type of Volunteer Service Agency	.002	.009	-.011	-.093	.076

SIMPLE CORRELATIONS BETWEEN
BACKGROUND VARIABLES AND SCALE
CHANGE SCORES FOR COOPER PARTICIPANTS

Background Variables	Scale Change Scores				
	SE	SR	MCR	IE	AL
Sex	-.048	-.054	-.035	-.136	.049
Father's Occupation	-.012	.029	.026	.013	.050
Father's Education	-.054	.013	-.007	-.047	-.001
Mother's Education	-.168	-.013	.024	.095	-.056
Minn. Scholastic Aptitude Test	.054	-.064	-.018	-.016	-.018
High School Rank (Percentile)	.011	-.097	-.099	-.056	-.097
Previous Volunteer Exper.	-.057	-.120	-.118	-.175	-.106
COOP Program Invol.	.069	-.139	-.164	-.058	-.143
Hours of Program Service	.065	.042	.031	.022	-.002
Type of Volunteer Serv. Agency	-.052	.101	.013	.060	-.008